

HUMAN GEOGRAPHY OF SOUTHWEST ASIA

Religion, Politics, and Oil

SECTION 1

The Arabian Peninsula

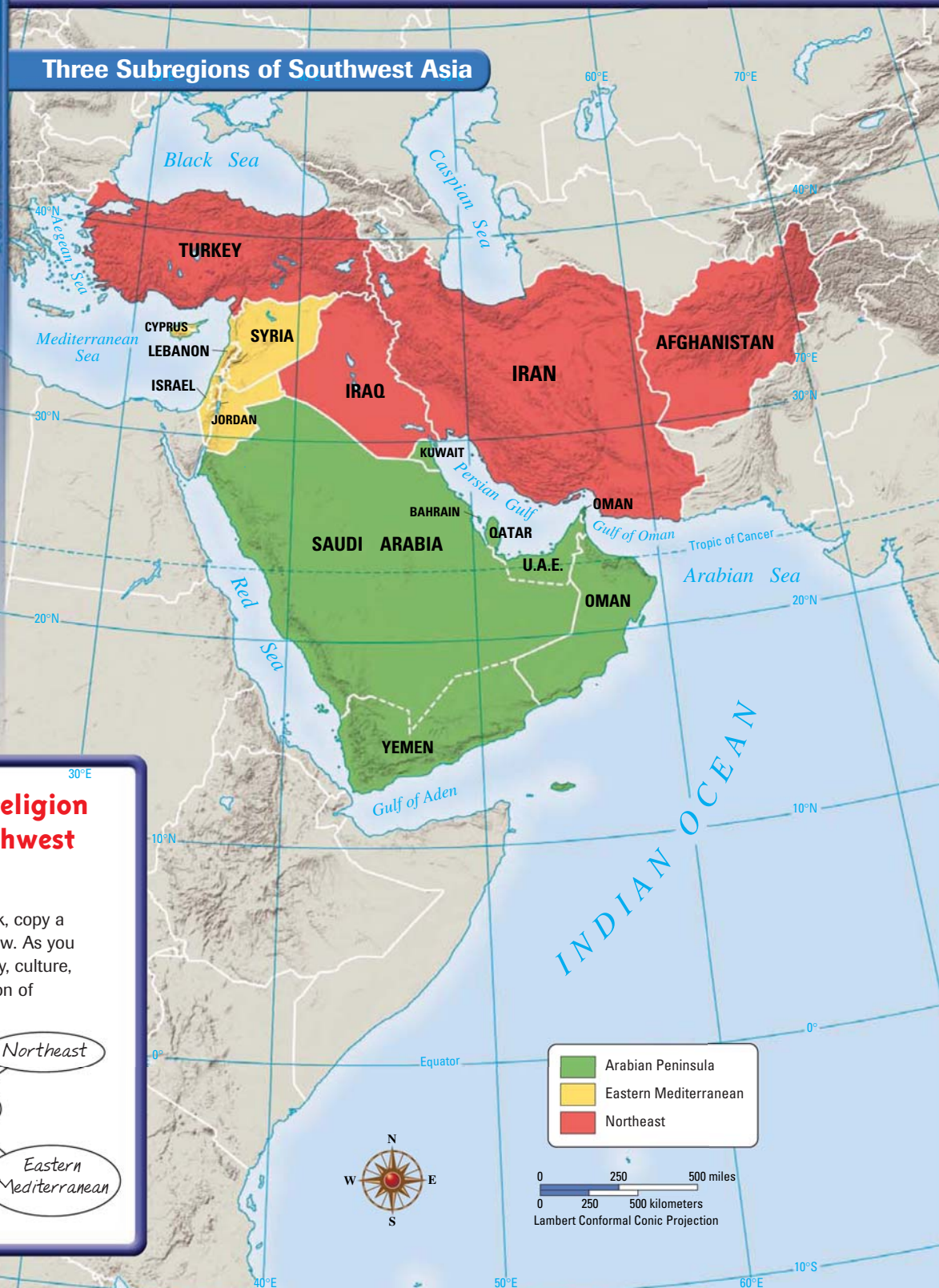
SECTION 2

The Eastern Mediterranean

SECTION 3

The Northeast

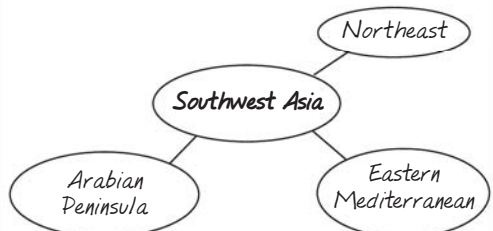
Three Subregions of Southwest Asia



GeoFocus

What impact have religion and oil had on Southwest Asia?

Taking Notes In your notebook, copy a cluster diagram like the one below. As you read, take notes about the history, culture, and modern life of each subregion of Southwest Asia.





The Arabian Peninsula

Main Ideas

- The Arabian Peninsula is heavily influenced by the religious principles of Islam.
- Oil production dominates the economy of the region.

Places & Terms

Mecca	mosque
Islam	theocratic
Muhammad	OPEC

CONNECT TO THE ISSUES

RELIGIOUS CONFLICT

Muslim claims to land in the region laid the foundation for future conflict.

A HUMAN PERSPECTIVE Two million people pour into the Saudi Arabian city of Mecca for a few weeks each year. They come from all over the world. In the past, the trip to Mecca involved a difficult journey across oceans and over miles of desert. Today, pilgrims arrive on airplanes. These people are fulfilling the Islamic religious duty of hajj, which is a pilgrimage to the holiest city of Islam—**Mecca**. For five or more days, all are dressed in simple white garments and all perform special activities, rituals, and ceremonies. It is a powerful example of spiritual devotion by the followers of one of the three major religions that claim a home in Southwest Asia.

Islam Changes Desert Culture

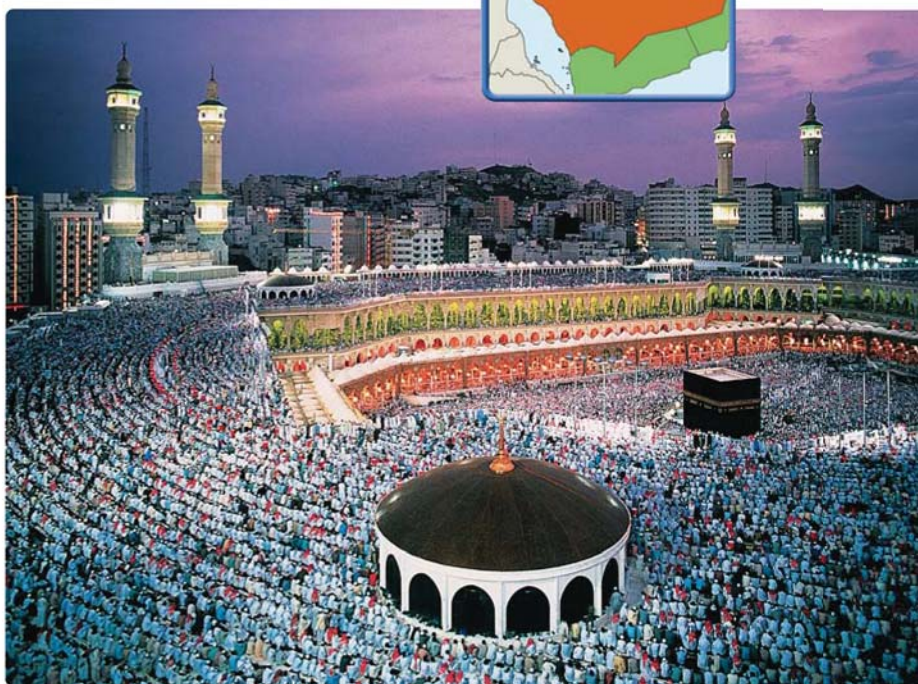
The modern nations in this subregion are Bahrain, Kuwait, Oman, Saudi Arabia, Qatar, United Arab Emirates, and Yemen. They are located at the intersection of three continents: Africa, Asia, and Europe. Because of this location, there were many opportunities for trade, and exchange of culture and religion.

TOWN AND DESERT In the past, some towns in the subregion served as trade centers for caravans moving across the deserts. Other cities were ports where goods were exchanged from the Silk Roads in East Asia, Indian Ocean trade from South Asia, and Mediterranean Sea trade from Europe. Still other towns were near oases and fertile lands along major rivers.

Nomadic desert dwellers called Bedouins moved across the peninsula from oasis to oasis. They adapted to the harsh conditions of the desert and built a culture based on strong family ties. They often fought against other families and clans for pasturelands for their livestock. Their fighting skills would eventually help to spread a new religion that developed in the region—Islam.

Islam is a monotheistic religion based on the teachings of its founder, the Prophet **Muhammad**. Muhammad lived part of his life in the city of Mecca.

PLACE Thousands of Muslim pilgrims gather at the holy site of the Ka'aba in Mecca. The Ka'aba is the black box at the right in the picture.



ISLAM BRINGS A NEW CULTURE The new religion united the people of the Arabian Peninsula in a way that had not been done previously. Islam requires certain religious duties of all who follow its teachings. The basic duties are called the Five Pillars. By performing these religious duties, all converts to Islam, called Muslims, practiced a similar culture. The Five Pillars are:

- **Faith** All believers must testify to the following statement of faith: "There is no God but Allah, and Muhammad is the Messenger of Allah."
- **Prayer** Five times a day, Muslims face toward the holy city of Mecca to pray. They may do this at a place of worship called a **mosque** or wherever they find themselves at the prayer times.
- **Charity** Muslims believe they have a responsibility to support the less fortunate by giving money for that purpose.
- **Fasting** During the Islamic holy month of Ramadan, Muslims do not eat or drink anything between sunrise and sunset. This action reminds Muslims that there are things in life more important than eating. It is also a sign of self-control and humility.
- **Pilgrimage** All able Muslims are expected to make a pilgrimage (hajj) to Mecca at least once during their lifetime.

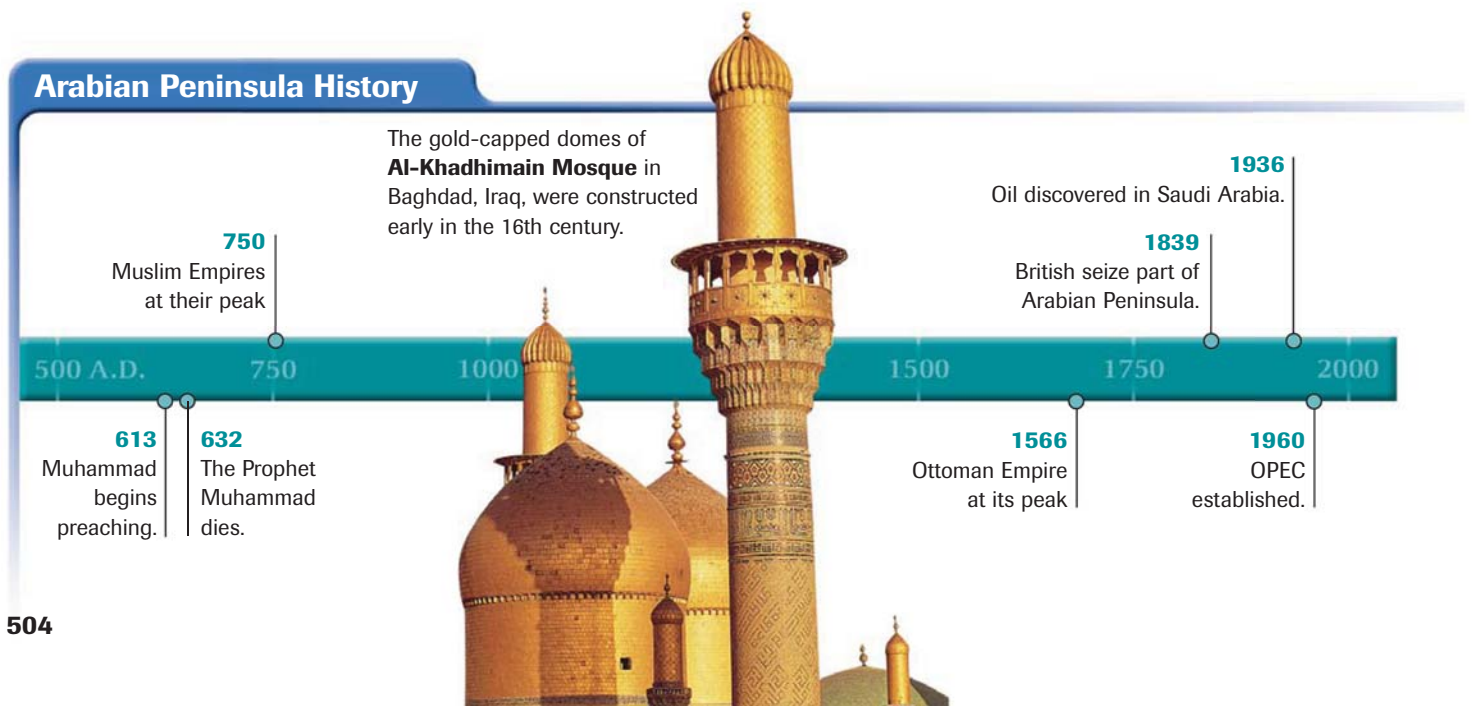
BACKGROUND

Ramadan is the ninth month of the 12-month lunar year calendar used by Muslims. It does not match the calendar used by most Americans.

THE SPREAD OF ISLAM As more and more people on the Arabian Peninsula began to convert to Islam, they spread its teachings. Armies of Bedouin fighters moved across the desert, conquered lands, and put Muslim leaders in control. Arabic language and Islamic teachings and culture spread across Southwest Asia. Muslim armies spread across three continents—Asia, Africa, and Europe. By the Middle Ages, a large area of the world was controlled by Muslim empires.


Governments Change Hands

The governments of lands controlled by Muslims were **theocratic**. This means religious leaders control the government. Rulers relied on religious law and consulted with religious scholars on running the country.



In some of the modern nations of this region—Iran, for example—religious leaders are in control of the government.

COLONIAL POWERS TAKE CONTROL Toward the end of the 1600s, the leaders of Muslim nations were weak. At the same time, countries like Britain and France were growing in power and establishing empires throughout the world. Much of Southwest Asia fell under the control of those two nations, especially after World War I and the breakup of the Muslim-held Ottoman Empire. The region was valuable to colonial powers for two reasons: because of the Suez Canal, a vital link between colonial holdings in the rest of Asia and European ports, and because oil was discovered there after 1932.

However, only a part of the region was colonized. On the Arabian Peninsula, a new power was rising. It was Abdul al-Aziz Ibn Saud. A daring leader, Abdul al-Aziz consolidated power over large areas of the Arabian Peninsula in the name of the Saud family. By the end of the 1920s, only small countries on the Arabian Gulf and parts of Yemen remained free of his control. The whole area became known as Saudi Arabia in 1932. Descendants of Abdul al-Aziz still rule Saudi Arabia today. 

Oil Dominates the Economy

The principal resource in the economy of the Arabian Peninsula is oil. The region grew in global importance as oil became more important to the economies of all nations. Arabian Peninsula nations make almost all of their export money and a large share of GDP from oil, so oil prices are very important to them. Large increases in oil prices allow the oil-producing nations to funnel money into development of other parts of their economies, especially water development projects.


In 1960, a group of oil-producing nations, including Saudi Arabia and Kuwait, established an organization to coordinate policies on selling petroleum products. The group is the Organization of Petroleum Exporting Countries, also known as **OPEC**. The purpose of OPEC is to help members control worldwide oil prices by adjusting oil prices and production quotas. OPEC is a powerful force in international trade. Other Southwest Asian members include Qatar, the United Arab Emirates, Iran, and Iraq.

Modern Arabic Life

Changes in the nations of the Arabian Peninsula during the 20th century were dramatic. The region is developing quickly with an emphasis on modernizing. Use of Western technology and machines undermined traditional ways of life. Camels, which used to be the mainstay of life in



Using the Atlas

 Using the map on page 479, make a list of the countries that were not under the control of Abdul al-Aziz.

BACKGROUND

Other members of OPEC include Algeria, Gabon, Indonesia, Libya, Nigeria, and Venezuela.

connect TO THE Issues

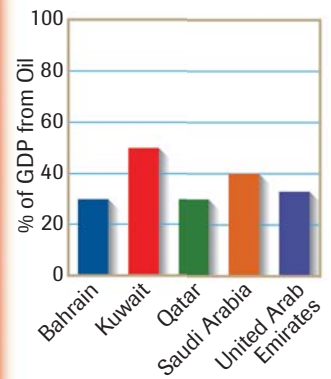
RESOURCES

Oil and the Economy

Many of the oil-producing countries are heavily dependent on oil as a major source of business. Kuwait, which is almost floating on oil because its resources are so great, generates about one-half of its GDP from petroleum. Notice in the chart below that the nations in this subregion are dependent on oil for at least 30 percent of their GDP.

Because oil is a non-renewable resource, it will eventually run out. These nations must work to find other sources of income to replace oil revenues when they are depleted.

**Oil Income
Percentage of GDP***



*Oman and Yemen not available
SOURCE: CIA World Factbook 2000

the Arabian Peninsula, are no longer used as extensively as they once were. Pick-up trucks, automobiles, and motorcycles have replaced them.

Gone, too, are some of the traditional marketplaces called bazaars or souks (sooks). These open-air markets brought together buyers and sellers with a great variety of merchandise, food, and entertainment. The market was a place to meet neighbors or friends, or to conduct business. Today, Western-style supermarkets or malls may be the shopping location of choice instead of the traditional bazaar.

THE CHANGE TO URBAN LIFE Cities were always a part of life in Southwest Asia. However, because of changes in the economy, the entire area is much more urbanized. Millions of people abandoned their lives as villagers, farmers, and nomads and moved into cities. In 1960, the region was about 25 percent urbanized. By the 1990s, this number had risen to about 58 percent. According to estimates, 70 percent of the population will live in cities by 2015. Saudi Arabia has an urban population of 83 percent. About 4 million people jam the capital, Riyadh. **B**

As the economy switched to providing petroleum and petroleum products, the types of jobs available in cities changed as well. Workers who could read and write and had technical skills were in great demand. Arabic nations on the peninsula scrambled to upgrade educational systems to meet the needs of the technological age. When those needs could not be fully met, foreign workers were brought in to work at jobs the native population could not fill. As a result, a large number of foreign workers now live in peninsula countries. In some cases, such as Qatar, only one in five workers is a native of the land.

RELIGIOUS DUTIES SHAPE LIVES Despite its rapid modernization, some aspects of Muslim culture have remained the same for centuries. If you traveled to Southwest Asia, one of the first things you would likely notice is that women cover their heads, hair, and sometimes faces with a scarf or veil. This is in keeping with the belief that covering those parts of the body is pleasing to God. Women's roles have gradually expanded during the 20th century. More Arabic women are becoming educated and are able to pursue careers in other nations. Because



Making Comparisons

B How does the percentage of people living in cities of the Arabian Peninsula compare to that of the United States?

PLACE Camels are transported to pasture land by truck.

How does this photograph illustrate the change oil production has made in the region?



CONNECT TO THE ISSUES

RESOURCES

Why might it be important for women to become more educated?

family is viewed as very important, many women stay at home to manage household affairs. ◀

As you read earlier in this section, all Muslims are expected to perform certain activities. One of the duties, prayer, is performed at prescribed times—dawn, noon, mid-afternoon, sunset, and before bed. Faithful Muslims stop the activities they are engaged in to carry out this responsibility. In some countries, traffic stops during prayer time. If a person is not near a place of worship, he or she may unroll a small prayer rug on which to kneel to pray. On Fridays, the day for congregational prayer, Muslims assemble for prayers at a mosque.

Fasting in the month of Ramadan is another duty that shapes the lives of Muslims. During this month, adult Muslims do not eat or drink from before dawn until sunset. Fasting is a way of reminding Muslims of the spiritual part of their lives. After sunset, Muslims may eat a light meal of lentil or bean soup, a few dates, yogurt, and milky tea. A festival, 'Id al-Fitr, marks the end of Ramadan. New clothes, gifts, and elaborate dinners, along with acts of charity, are part of the celebration.

Since the Muslim culture is found throughout Southwest Asia, many of the same activities of modern life on the Arabian peninsula take place in other areas of Southwest Asia as well. However, as you will learn in the next section, other groups with different religions and lifestyles also live in the region.



PLACE The female doctor above shows a blend of traditional and modern lifestyles.

How does this photograph illustrate changes in the roles of women in the region?



Assessment

1 Places & Terms

Explain the meaning of each of the following terms.

- Mecca
- Islam
- Muhammad
- mosque
- theocratic
- OPEC

2 Taking Notes

REGION Review the notes you took for this section.



- How have Islamic beliefs affected this region?
- Why did this region grow in economic importance?

3 Main Ideas

- a. What are the Five Pillars of Islam?
- b. Why was the region of Southwest Asia important to colonial powers?
- c. What is the purpose of OPEC?

4 Geographic Thinking

Drawing Conclusions

How has the presence of large deposits of oil changed the lives of the people of the Arabian peninsula? **Think about:**

- where people live
- the types of jobs available



RESEARCH LINKS
CLASSZONE.COM

GeoActivity

MAKING COMPARISONS Use the Internet to find more information on the increase in oil production over the last 25 years for the nations shown in the graph on page 505. Create a **line graph** showing the increases in oil production for the five nations.

Comparing Cultures

Religious Architecture

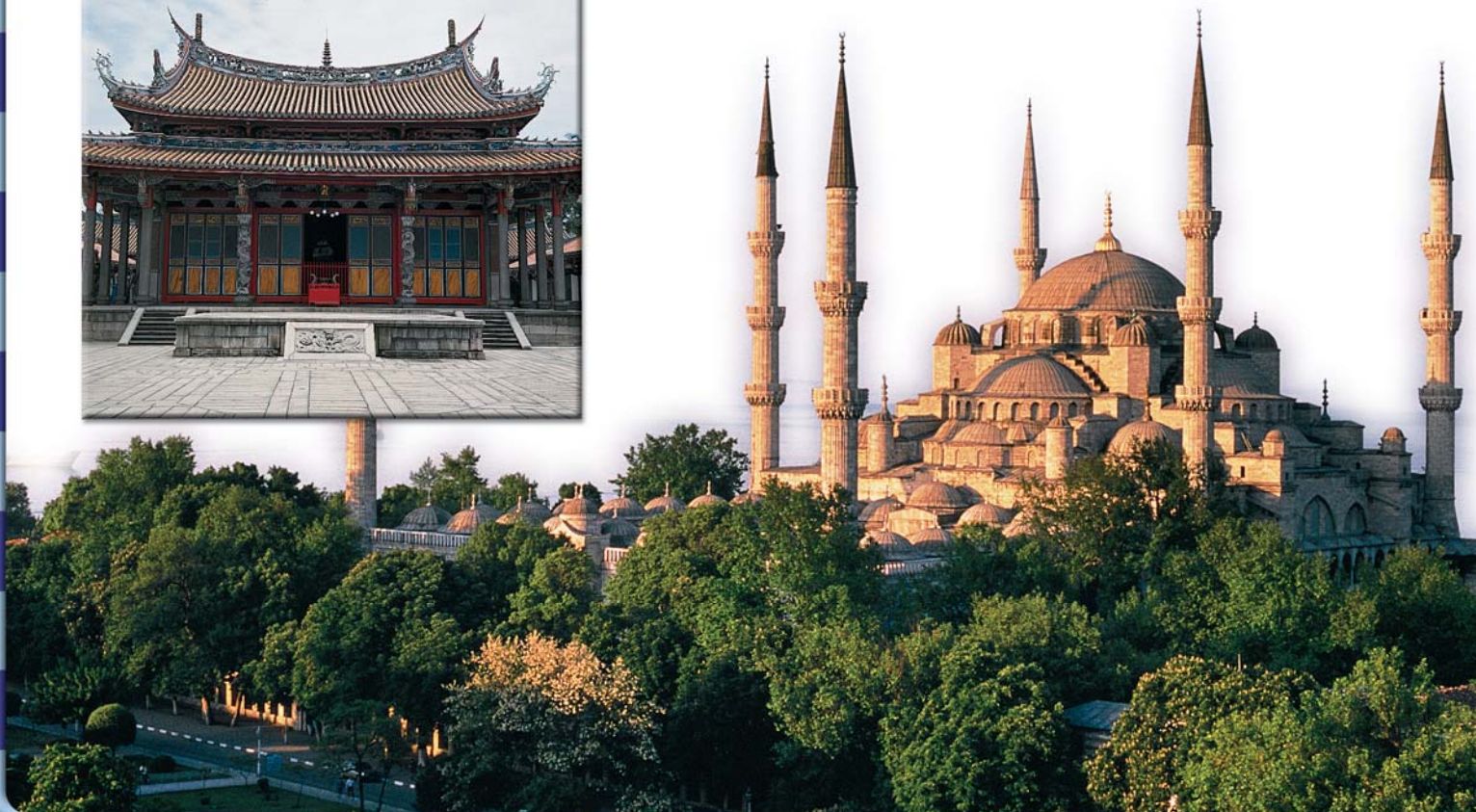
Throughout the world and across time, people have created spaces in their communities for the worship of God. Sometimes the space is reserved for only a special few, such as priests. Other times the space is designed to bring many worshippers together to create a sense of community. Religious requirements, available building materials, and artistic expression come together in the “houses of god.”

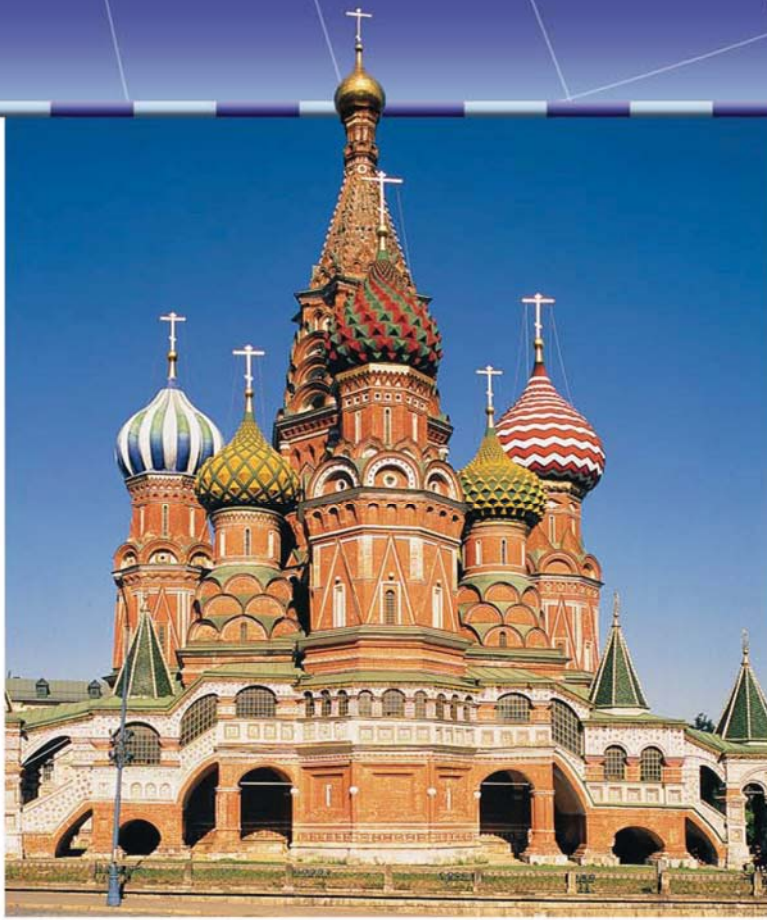


A Buddhist temple, such as this one located in Chufu, China, is sometimes called a pagoda. The temple itself usually is a wooden hall with several tiled roofs that curve up on the edges.



The Sultan Ahmed Cami Mosque in Turkey is considered one of the finest examples of Muslim religious architecture. Most mosques feature a minaret, a slender tower from which believers are called to prayer. This mosque is unusual because it has six minarets.





St. Basil's Cathedral in Moscow, Russia, is really eight smaller churches around a main one. The basic plan of the church forms a cross. The exterior was originally white. The colorful domes are covered with roof tiles that were added in the 17th century.

The Pyramid of the Sun in Mexico is the largest Meso-American religious structure. Its size was designed to inspire awe in the worshipper. A small temple on the top was usually visited only by priests.



GeoActivity

CREATING A MODEL

Choose one of the major religions of the world. With a small group, use the Internet to research more about the religious architecture of that religion.

- Create a model of a worship space showing the unique aspects of that religion's architecture.
- Create a brochure explaining your model.



RESEARCH LINKS
CLASSZONE.COM

GeoData

PLACES OF WORSHIP

THE MOSQUE

- Muslims are instructed to face toward Mecca when they pray. Inside the mosque, a special recess in the wall—*mihrab*—marks the direction of Mecca.
- The Sultan Ahmed Cami Mosque is also called the Blue Mosque because of the bluish haze given to the interior by 21,043 blue-glazed tiles on the walls.

THE PYRAMID

- Standing 216 feet high and 720 by 760 feet at the base, the Pyramid of the Sun is one of the largest structures of its type in the Western Hemisphere.

ST. BASIL'S CATHEDRAL

- St. Basil's was built by Ivan IV, also called Ivan the Terrible, as an offering to God for military victories over Tatar armies.
- Legend has it that the architect of St. Basil's was blinded so that he could never create anything similar to St. Basil's.



The Eastern Mediterranean

A HUMAN PERSPECTIVE On September 28, 2000, riots broke out in the city of Jerusalem. The cause was a visit by an Israeli political leader to a Jewish holy place at a location on the Temple Mount. Muslims also have a holy place on the Temple Mount. They viewed the visit by the Israeli leader as disrespectful to Muslims. Hundreds of people died in the civil unrest that followed.

To understand why a simple visit to a holy place would cause such problems, it is necessary to understand the deep-seated hostility Arabs and Jews feel for each other. They have an enormous disagreement over the control of the city of Jerusalem and of the land called the Occupied Territories. (See the map on page 480.) In fact, the relations between Arabs and Jews affect the entire region of the Eastern Mediterranean.

Religious Holy Places

Three major monotheistic religions—Judaism, Christianity, and Islam—were founded in Southwest Asia. All three claim Jerusalem as a holy city. The City of Jerusalem, which covers 42 square miles, has Jewish, Christian, Armenian Christian, and Muslim sections. Followers of all three religions come to the Old City to visit locations with strong spiritual meaning.

JEWISH PRESENCE For Jews, Jerusalem, the capital of Israel, is the center of their modern and ancient homeland. Located in the old part of the city, the Temple Mount once housed the religion's earliest temples. There, King Solomon built the First Temple. The Second Temple was constructed after the Jews returned to their homeland in 538 B.C. Modern Jews come to pray at the holiest site in Jerusalem, a portion of the Second Temple known as the **Western Wall**—also called the Wailing Wall. It is the only remaining piece of the Second Temple, which was destroyed in A.D. 70 by the Romans.

CHRISTIAN HERITAGE For Christians, Jerusalem is the sacred location of the final suffering and crucifixion of Jesus. Towns and villages important in the life of Jesus are found near Jerusalem. Every year, Christians visit places like the Mount of Olives and the Church of the Holy Sepulchre by the thousands. When Jerusalem was under Muslim control, Christians launched the Crusades to regain the lands and place them under the

Main Ideas

- The holy places of three religions are found in this subregion.
- There is a great deal of political tension among nations in this subregion.

Places & Terms

Western Wall

Dome of the Rock

Zionism

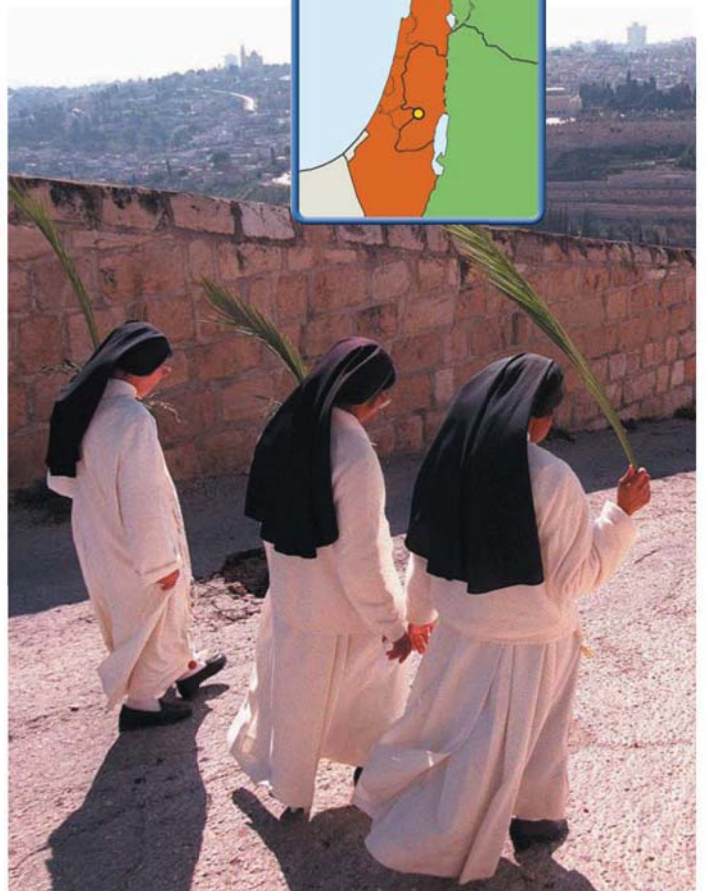
Palestine Liberation Organization (PLO)

CONNECT TO THE ISSUES


RELIGIOUS CONFLICT

Creation of the nation of Israel led to conflict in the region.

PLACE Christian pilgrims walk on the road to the Mount of Olives on a holy day—Palm Sunday.




control of Christians. Eventually, the lands returned to the control of Muslims and remained that way until the nation of Israel was established in May of 1948.

ISLAMIC SACRED SITES After Mecca and Medina, Jerusalem is considered the third most holy city to Muslims. A shrine there, called **Dome of the Rock**, houses the spot where Muslims believe the Prophet Muhammad rose into heaven. Jews believe it is the site where Abraham, a Jewish forefather, prepared to sacrifice his son Isaac to God. The Dome of the Rock and a nearby mosque, Al-Aqsa, are located on the Temple Mount next to the Western Wall. Because these most holy sites are so close together, they have been the site of clashes between Jews and Muslims. 



CONNECT TO THE ISSUES

RELIGIOUS CONFLICT

 What problems might emerge when three different religious groups claim the same area as a holy place?

A History of Unrest

The nations of the Eastern Mediterranean have been plagued with a history of political tension and unrest. The Ottoman Empire, a Muslim government based in Turkey, ruled the Eastern Mediterranean lands from 1520 to 1922. But the Ottoman Empire grew weaker and less able to solve problems with groups seeking independence. By the beginning of the 20th century, its collapse was not far away. The Ottoman Empire sided with Germany during World War I. At the end of the war, the Ottoman Empire fell apart. Britain and France received the lands in the Eastern Mediterranean as part of the war settlement.

THE LEGACY OF COLONIALISM After World War I, Britain and France divided the Ottoman lands in the Eastern Mediterranean region. France took the northern portion, including the present-day countries of Lebanon and Syria. Britain controlled the southern section, which included the present-day nations of Jordan and Israel. Britain and France were supposed to rule these lands until they were ready for independence. During the time of their control, the French frequently played different religious groups against each other. Those tensions remain in the region today. The Syrians hated the French and in the 1920s and 1930s rebelled against them. Lebanon became independent in 1943, and Syria gained independence in 1946.

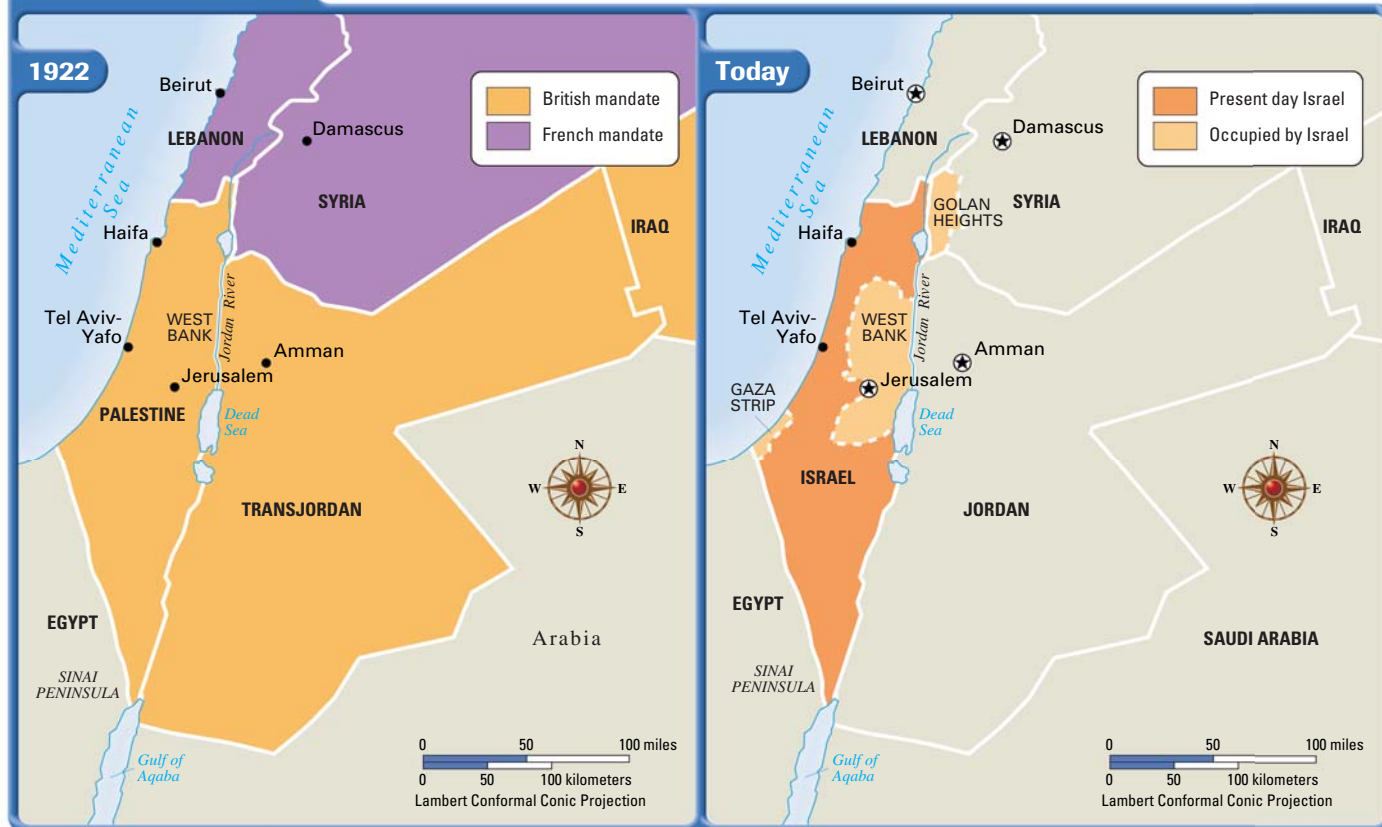
BRITISH CONTROL PALESTINE The land controlled by Britain was known as Palestine. In the 19th century, a movement called **Zionism** began. Its goal was to create and support a Jewish homeland in Palestine. Jewish settlers started buying land and settling there. By 1914, just before World War I, about 12 percent of the population in Palestine was Jewish. After the war, the British took command of the region and continued to allow Jewish immigration to Palestine. Early

BACKGROUND

The League of Nations gave the Ottoman lands to France and Britain.

PLACE Muslim visitors gather at the Dome of the Rock, a holy site in the city of Jerusalem.
How did control of Jerusalem change over many centuries?

Creation of Israel



SKILLBUILDER: Interpreting Maps

- 1 **PLACE** Which bodies of water form a natural boundary between Jordan and Israel?
- 2 **PLACE** Which three areas are occupied by Israel?

on, Arabs and Jews in the region cooperated. But as more and more Jews poured into Palestine to escape persecution in Germany, the Arabs resisted the establishment of a Jewish state. In 1939, to reduce tensions the British halted Jewish immigration to Palestine.

As you study the map on this page, you will see that the area controlled by the British was divided into two sections—Transjordan and Palestine. The land was divided to relieve tensions between Arabs and Jews. An Arab government jointly ruled Transjordan with the British. Britain controlled Palestine, along with local governments that included both Jews and Arabs.

CREATING THE STATE OF ISRAEL At the end of World War II, thousands of Jewish survivors of the Holocaust wanted to settle in Palestine. Palestine was considered the Jewish homeland. World opinion supported the establishment of a Jewish nation-state. Britain eventually referred the question of a Jewish homeland to the United Nations. In 1947, the United Nations developed a plan to divide Palestine into two states—one for Arabs and one for Jews.

Arabs in the region did not agree with the division. However, the nation of Israel was established on May 14, 1948. Immediately, the surrounding Arab nations of Egypt, Syria, Lebanon, Jordan, Iraq, Saudi Arabia, and Yemen invaded Israel to prevent the establishment of the state. Jewish troops fought back. By the 1950s, Israel was a firmly established nation. The 1948 war was the beginning of hostilities that continue to this day. **B**



Using the Atlas

B Use the Atlas on page 480.

How was the land Israel occupied in 1967 different from the land it held in 1948?

BACKGROUND

A refugee is a person who leaves home or country to find safety in another location.

Caught in the middle of this turmoil were Palestinian Arabs and Christians. Many of these people had roots in Palestine that went back for centuries. They either fled their homes or were forced into UN-sponsored refugee camps just outside Israel's borders. The land designated for the Palestinians on the West Bank and Gaza Strip is under Israeli control. In the 1960s, the **Palestine Liberation Organization (PLO)** was formed to regain the land for Palestinian Arabs. Over the years, the PLO has pursued political and military means to take possession of Arab land in Israel and allow refugees to return to their homes.

Modernizing Economies

The nations in the Eastern Mediterranean subregion are relatively young. Most became independent shortly after World War II. Cyprus received its independence from Britain in 1960. These nations face many economic problems. Political divisions, refugees, lack of water, and a weak infrastructure make it difficult to develop healthy economies.

REFUGEES AND CIVIL WARS The creation of Israel produced a large number of Palestinian refugees. Today, those refugees and their descendants total almost 3.6 million people. They are scattered across many of the countries in the region. Some still live in UN-sponsored camps.

Many of the refugees have struggled to find adequate food and shelter. Many of them are unemployed. Providing education and other services for them is difficult for nations such as Jordan, one of the poorest in the region—and the one with the largest Palestinian refugee population.

Civil wars in Lebanon and Cyprus have also caused huge economic problems. Lebanon, a more developed nation, was hard hit by a civil war that lasted from 1975 to 1976. The conflict widened to include other nations, and in 1982 Israel invaded Lebanon. Some Israeli troops remained in Lebanon until 2000.

MODERN INFRASTRUCTURE All of the nations of the Eastern Mediterranean subregion have great potential for development. They have a good climate for producing citrus crops and many places for tourists to visit. They are well located for connections to international markets in Europe, Asia, and Africa.

What many of them lack, however, is an infrastructure that would support a growing economy. Roads in war-torn areas, for example, must be rebuilt. Especially needed are irrigation systems to make the area bloom. Better communication systems and power sources are needed for developing high tech industries in the region. Israel has been able to build sophisticated industries such as computer software development.

BACKGROUND

The island of Cyprus has two countries. One is controlled by Greek Cypriots and one by Turkish Cypriots. Only Turkey officially recognizes the Turkish republic.

connect TO THE Issues

POPULATION

Palestinian Refugee Camps

In 1949, the UN authorized the creation of 53 Palestinian refugee camps. The camps were supposed to be used only for a short time until the Palestinians were resettled. That was over 50 years ago. Today, most of the Palestinians living in the camps were actually born there and have never been to the lands designated for the Palestinian state.

The camps house upwards of 35,000 people and some as many as 50,000 people. The UN and other nations provide money for education and health care needs. Since the Israeli government restricts all travel for work, economic opportunities are very limited.



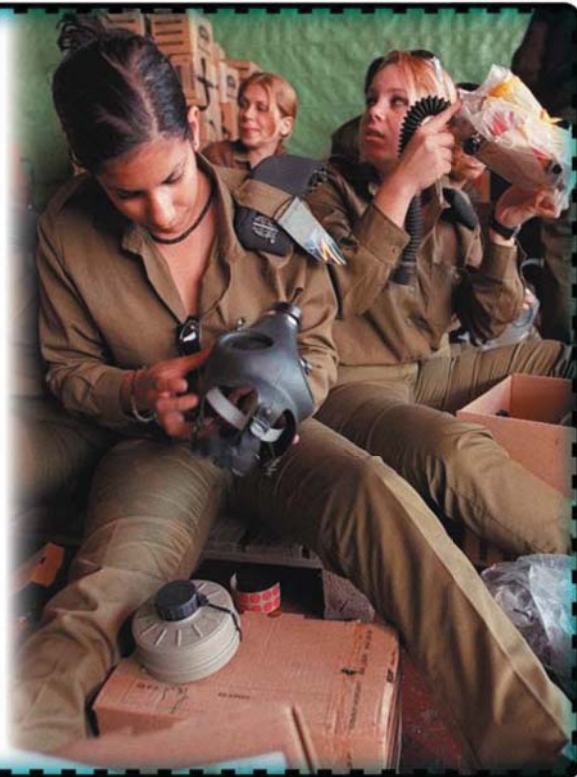
growing up in... Israel

This young woman is a member of the Israel Defense Forces.

Unmarried Jewish young women are required to serve for two years. They serve in various parts of the armed forces, in jobs such as tank instructors, helicopter pilots, military police, rescue workers, and office workers. They are not permitted to serve in active combat units. Service in the armed forces helps build unity and identity for Israelis.

If you lived in Israel, you would pass these milestones:


- You would go to school from age 5 to age 15.
- At age 14, you would choose between going to a technical school or a more academic school.
- You could begin working at age 15.
- You could drive at age 17.
- You could get married at age 17.
- You would enter the armed forces at age 18: men for 3 years, women for 2 years.



Modern Life

Modern life in the Eastern Mediterranean is a curious blend of old and new. Strong cultural traditions exist but they are combined with changes that were brought about by modern innovations. Cell phones, computers, and Internet access are increasingly common. One aspect of life here that remains quite traditional, however, is the dining experience.


EATING OUT, EATING IN Eating in restaurants in Eastern Mediterranean countries is not as common as in the United States. Some restaurants have separate sections for men and women. Cafes serving coffee and tea are generally for men only. Most meals are eaten in the home. Families and sometimes friends gather to have meals. The last meal of the day is usually served between 8 and 11 P.M.

Typically, a meal begins with small portions of hummus, ground chickpeas mixed with lemon juice and parsley, and baba ganoush, an eggplant dip served with pita, a flat bread with a pocket. A salad called tabbouleh, made of bulgur (cracked wheat), parsley, onions, mint, tomatoes, and lemon juice, is common. Chicken or lamb is more likely to be served as a main course than beef. Many meals are finished with fresh fruit or sweets such as kolaicha, a sweet cake made of barley flour, sugar, oil, and cardamom seed. Thick coffee or tea is also served. The host of a dinner may not eat with the guests so that he can attend to all their needs during the meal. 

A VARIETY OF CULTURES Muslim Arabs make up the majority of people who live in the countries of the Eastern Mediterranean. However, in several nations, especially Lebanon and Israel, there is a variety of cultures.



Making Comparisons

 In what ways is the dining experience in this region different from that of the United States?

Since the seventh century, Lebanon has been a refuge for both Muslims and Christians. Many of the Muslims there are Shi'ites, as compared to the Sunni majorities in many of the other nations in this region. A small group of Druze also live in Lebanon. This tightly knit group is very secretive about its religious practices. The members live in the mountainous areas of Lebanon and also in Israel and Syria. Christians of the Maronite tradition (Roman Catholics following Eastern Orthodox practices) and the Eastern Orthodox tradition make up a large minority in Lebanon. Together, these groups present a wide variety of cultures and religious practices. The variety makes it difficult to build unity in the country.

Israel is a land with a tremendous variety of immigrants. The majority of immigrants are Jewish, and they arrive from all over the globe. They come from the United States, Eastern Europe, the Mediterranean region, Russia, and Ethiopia. The focus of Jewish culture helps to draw most of this diverse group together.

In addition, Israel is home to Arab Muslims of several different groups. Bedouins live in the Negev Desert. Druze, Sunni, and a group called Circassians come from the Caucasus Mountains area. Also living in Israel is a small number of Christians and people following the Baha'i faith. The combination of all these groups brings a variety of languages and lifestyles to Israel.

In the next section, you will learn about countries in this region with ethnic backgrounds that are Turkish or Persian.



PLACE A woman walks along the beachfront of Beirut, Lebanon.
How does Lebanon's relative location make it a refuge for Muslims and Christians?



Seeing Patterns

▶ How might the small size of Israel and Lebanon affect the way groups of people living there relate to each other?



Assessment

1 Places & Terms

Explain the meaning of each of the following terms.

- Western Wall
- Dome of the Rock
- Zionism
- Palestine Liberation Organization

2 Taking Notes

PLACE Review the notes you took for this section.

Southwest Asia

Eastern Mediterranean

- What are some religious holy places found in this subregion?
- What factors have made it difficult to develop this subregion economically?

3 Main Ideas

- How did colonial rule set up tension in the subregion?
- What impact have refugees and civil wars had on modernizing the economies of this subregion?
- In addition to Muslims, what other groups live in the Eastern Mediterranean nations?

4 Geographic Thinking

Determining Cause and Effect How did the creation of the nation of Israel increase tension in the subregion? **Think about:**

- religious differences
- division of Palestine



See Skillbuilder Handbook, page R9.



MAKING COMPARISONS Review the maps on page 480 and page 512. Create a series of four **sketch maps** that show how the state of Israel changed between 1922 and 1976. Write a caption on each map describing the change from the previous map.



The Northeast

Main Ideas

- The nations in this subregion are Muslim but most are not part of the Arab culture.
- The nations in the Northeast range from developed to very poorly developed.

Places & Terms

Kurds

Shi'ite

Mesopotamia

Taliban

Sunni

CONNECT TO THE ISSUES

POPULATION RELOCATION

The Kurds' movement across this subregion has caused conflict.

A HUMAN PERSPECTIVE On March 16, 1988, Iraqi Air Force planes released poisonous gases over the Kurdish town of Halabja, Iraq. An estimated 5,000 **Kurds**, an ethnic group in Southwestern Asia, died from the chemical weapons attack. The Kurdish people have occupied the lands they call Kurdistan for thousands of years. In the modern world, those lands are located in Turkey, Iraq, and Iran. For most of the 20th century, these three nations disagreed with the Kurds over control of these lands. In fact, clashes over land have been the focus of much unrest in the northeastern part of Southwest Asia.

A Blend of Cultures

The nations in this subregion include Turkey, Iran, Iraq, and Afghanistan. They are mostly Muslim in religion, but only Iraq is Arabic in cultural life. All these nations were influenced by early civilizations and empires in the region.

EARLY CIVILIZATIONS Part of the cultural hearth known as the Fertile Crescent is located here. Some of the earliest civilizations in the world developed in Iraq along the Tigris and Euphrates rivers. Sumer, Babylonia, Assyria, and Chaldea all built empires in **Mesopotamia**, the “land between the rivers.”

The Hittites, whose empire stretched across what is Turkey today, brought innovations such as the use of iron weapons. Persia, which developed in the region occupied by Iran today, introduced innovations in government organization.

ETHNIC AND RELIGIOUS VARIETY Living in this subregion are members of many ethnic groups, including Turks, Kurds, Persians, and Assyrians. The map on page 482 shows where these groups live. They speak languages such as Turkish and Farsi, which are different from the Arabic that is spoken in the rest of the region.

Though the different ethnic groups all follow Islam, tensions exist. After the death of the Prophet Muhammad, Muslims divided into two main branches—the **Sunni** and the **Shi'ite**. About 83 percent of all Muslims are Sunni. Most Iranians are Shi'ite.

Northeast Ethnic Areas




SKILLBUILDER: Interpreting Maps

- 1 REGION** Which country has the largest area inhabited by Kurds?
- 2 REGION** What is the approximate size of the area inhabited by the Kurds?

Clashes Over Land

Clashes over land in this region increased after World War I. Some were disagreements over homelands claimed by ethnic groups whose demands for land were ignored. Other disputes were over control of valuable oil fields.


HOMELANDS AND REFUGEES The Kurds have been called a stateless nation. At the end of World War I, they were promised a homeland but never received it. Clashes between the Kurds and the governments of Turkey, Iran, and Iraq have prevented the Kurds from becoming a nation-state.

Because of its location, Iran has become home to refugees fleeing oppressive governments in both Afghanistan and Iraq. In fact, Iran has the largest refugee population of any nation in the world. Iraqi Shi'ites persecuted by their government have sought refuge with fellow Shi'ites in Iran. Decades of war drove many Afghan refugees to Iran, although some began to return in 2002. 

CONTROL OF OIL FIELDS Access to the oil-rich regions on the Persian Gulf is strategically important for all nations that import oil. Between 1980 and 1990, Iran and Iraq fought a war over control of oil fields. Then, in 1990–1991, Iraq invaded Kuwait, starting the Persian Gulf War. The United States and 32 other nations fought to drive the Iraqis out of Kuwait and keep oil fields open.

CONNECT TO THE ISSUES

POPULATION RELOCATION

 How might land claims and refugee status affect movement across the region?

PLACE In Afghanistan, coalition forces prepare explosives to blow up caves that shelter Taliban forces.

What difficulties did the coalition forces face fighting in the mountainous terrain of Afghanistan?

Clashes Over Leadership

The war on terrorism declared by President George W. Bush led to clashes over leadership in the Northeast subregion. Within a month of the attacks against the United States on September 11, 2001, the United States and the coalition forces fought in Afghanistan, where the terrorists responsible for the attacks were being harbored. In 2003, fear for national security prompted the United States to declare war on Iraq and its leader, Saddam Hussein.

OVERTHROW OF THE TALIBAN A fundamentalist Muslim political group called the **Taliban** was protecting Osama bin Laden and his al-Qaeda terrorist network in Afghanistan. On October 7, 2001, U.S.-led coalition forces launched Operation Enduring Freedom to seize the terrorists' financial assets and destroy their infrastructure. By March 2002, the Taliban had been removed from power. A transitional government, headed by Hamid Karzai, replaced the repressive regime. However, some Taliban and al-Qaeda leaders, including Osama bin Laden, managed to escape the coalition forces.



OVERTHROW OF SADDAM HUSSEIN After the Persian Gulf War ended in 1991, the United Nations ordered Saddam Hussein to destroy his biological and chemical weapons. President George W. Bush, however, believed that the Iraqi dictator was continuing to develop and expand a weapons of mass destruction program. As a result, American and British forces launched Operation Iraqi Freedom in March 2003 to stamp out Hussein's ability to wage mass war or aid terrorists. Major combat ended on May 1, and the long process of working toward a democratic government in Iraq began. Saddam Hussein was captured in December 2003. But by 2005, weapons of mass destruction still had not been found in Iraq.

Reforming Economies

The nations in this subregion face a variety of economic challenges. All of them have limited agricultural land. Production must become more efficient in order to produce surplus crops to sell elsewhere. Most of these nations have oil or natural gas resources that can generate revenue. This money is needed to update and expand transportation systems, communication systems, power generation plants, and water and sanitation systems.

PLACE This monument located in Tehran is dedicated to the Iranian Revolution.

Why might the government have built such a monument?



MAKING PROGRESS Turkey and Iran are making progress in modernizing their economies. Turkey is developing its water resources and hydroelectric plants to supply energy and to boost production of cotton and other agricultural products. It is the only nation in this subregion that produces significant amounts of steel. Turkey straddles two continents—Europe and Asia—which makes it ideally located for trade. **B**

Changes in Iran's government have had a major impact on its economic progress. Government attitudes have swung between strong support for economic growth to no plans for change. The current government is supporting growth. Oil money fuels most of the plans for developing a diversified economy.

But Iran is still recovering from a war with Iraq (1980–1990) that severely harmed its economy.

PROGRESS INTERRUPTED For many years, war and political problems in Iraq and Afghanistan prevented these countries from improving their economies. After Iraq invaded Kuwait in 1990, economic restrictions were imposed, limiting much of Iraq's foreign trade. As a result, the Iraqi people have lacked basic goods such as food and medicine and other medical supplies.

Afghanistan is one of the poorest nations in the world. Most of its people are engaged in agriculture



Seeing Patterns

B Why might Turkey's location increase its desire to develop international trade?

and animal herding. Afghanistan has great mineral resources, but civil war and turmoil during the U.S.-led war against the Taliban in 2001 and 2002 interrupted any attempts at progress in the area. After the Taliban regime was removed from power, however, the transitional government began taking steps toward rebuilding Afghanistan's economy.

Modern and Traditional Life

As the nations of this subregion move into the new century, they face internal struggles. In each country, a division exists between those who want to adopt a modern lifestyle and those who want to preserve more traditional ways.

Nowhere was this division more apparent than in Afghanistan. There, the Taliban imposed strict rules on people's behavior. After the regime was toppled in 2002, however, newly installed president Hamid Karzai began restoring civil liberties and improving education.

In Turkey, Iran, and Iraq, groups similar to the Taliban exist but have not been able to gain control of the governments there. These fundamentalist Muslim groups have very different ideas from each other about the way people should behave. It has led to conflicts within the societies that have sometimes flared into serious political problems.

In the next chapter, you will study more about issues that affect the countries of Southwest Asia.



PLACE An Iranian woman works on a wool rug. The high quality hand-woven rugs are a valuable trade item.

How does the photograph demonstrate a traditional lifestyle?

SECTION 3 Assessment

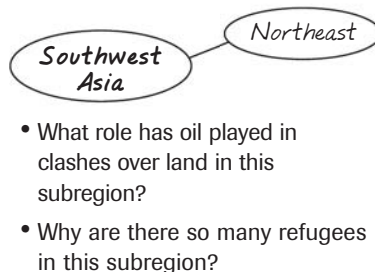
1 Places & Terms

Explain the meaning of each of the following terms.

- Kurds
- Mesopotamia
- Sunni
- Shi'ite
- Taliban

2 Taking Notes

REGION Review the notes you took for this section.



3 Main Ideas

- How are the people who live in the Northeast different from those who live in other parts of Southwest Asia?
- What do the nations in this subregion need to do to develop their economies?
- Why did the United States overthrow some of the leaders in the subregion?

4 Geographic Thinking

Making Inferences What impact do political problems have on economic progress?

Think about:

- the economies of Turkey and Iran
- the economies of Iraq and Afghanistan



SEEING PATTERNS Review the information on ethnic and religious variety, and national economies of the countries in this section. Also visit the Internet for more information on the topics. Then create a **database** showing your information.

Disasters!

INTERACTIVE

Earthquake in Turkey

As the Arabian Plate pushes northward, it squeezes the Anatolian Plate into the Eurasian Plate. Caught like a slippery seed squeezed between two fingers, the Anatolian Plate slips westward. This movement causes the earth to quake. At 3 A.M. on August 17, 1999, residents of Gölcük, a city near Izmit, Turkey, were thrown from their beds by 45 seconds of earth-shaking terror. When it was over, the quake—which measured 7.4 on the Richter Scale—had taken the lives of 17,000 people and caused billions of dollars of damage.



Izmit, Turkey, was at the epicenter of the quake. It is located on one of the world's most active fault lines—the North Anatolian Fault. Since 1939, 11 major quakes have hit along the Anatolian Fault Line.





The quake destroyed 85,000 buildings. Many of the buildings were poorly constructed with inferior building materials. Floors of buildings "pancaked" and crushed the residents.

GeoActivity

MAKING A DEMONSTRATION

Working with a small group, use the Internet to research the causes and effects of earthquakes. Then create a **demonstration** about earthquakes.

- Build a model or create a diagram showing how an earthquake occurs.
- Create a chart showing the type of damage caused by earthquakes.
- Add a world map showing the major fault lines.



RESEARCH LINKS
CLASSZONE.COM

GeoData

THE MERCALLI INTENSITY SCALE

- The Mercalli Intensity Scale measures an earthquake's effect on people and buildings.
- Mercalli ranges from I to XII. Here are some examples.
 - I.** No damage
 - VI.** Pictures fall off the wall
 - VII.** Slight damage to structures
 - X.** Most masonry structures destroyed; landslides; ground cracked
 - XII.** Total damage

RICHTER SCALE

- The Richter Scale measures the magnitude of energy released during an earthquake.
- Here are some examples of Richter Scale measurements:
 - 2** Just felt
 - 4.5** Damage newsworthy
 - 7** A major quake
 - 8** Great damage
 - 8.9** Largest quake ever recorded



About 40,000 families were made homeless by the quake. Survivors were housed in 168 tent cities. Unfortunately, few were winterized, and thousands of people shivered through Turkey's winter.

VISUAL SUMMARY HUMAN GEOGRAPHY OF SOUTHWEST ASIA

Subregions of Southwest Asia

● The Arabian Peninsula

- The teachings of Islam shape the lives of the people of the region.
- Oil forms the basis of the economy of the region.
- The subregion has experienced rapid modernization.

● The Eastern Mediterranean

- The region has holy places of three religions: Judaism, Christianity, and Islam.
- The Jewish nation-state of Israel was created in 1948.
- Political unrest in the region has disrupted life and created problems with refugees and the economy.

● The Northeast

- The region has a variety of ethnic groups, most of whom practice Islam.
- The region has economies that range from developed to one of the poorest nations in the world—Afghanistan.
- There are divisions among the people of this region over modern and traditional lifestyles.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

- | | |
|---------------------|--------------------------------------|
| 1. Mecca | 6. Zionism |
| 2. Islam | 7. Palestine Liberation Organization |
| 3. OPEC | 8. Sunni |
| 4. Western Wall | 9. Shi'ite |
| 5. Dome of the Rock | 10. Taliban |

B. Answer the questions about vocabulary in complete sentences.

11. Why is Mecca an important site to Muslims?
12. How are Islam, Sunni, and Shi'ite related to each other?
13. Which branch of Islam has the largest number of followers?
14. Where are the Western Wall and the Dome of the Rock located?
15. With which religion is the Dome of the Rock associated?
16. Why is the Western Wall important to Jews?
17. Which of the terms above is associated with international oil trade?
18. What is the goal of the Palestine Liberation Organization?
19. How is Zionism connected to the formation of the state of Israel?
20. In which country would you find members of the Taliban?

Main Ideas

The Arabian Peninsula (pp. 503–509)

1. How did the teachings of Islam unite the people of the Arabian Peninsula?
2. Why is oil so important to the economies of the Arabian Peninsula?
3. How has modern Arabic life changed in the past 50 years?

The Eastern Mediterranean (pp. 510–515)

4. For which religions is Jerusalem a holy city?
5. Why was the state of Israel created?
6. What factors have made it difficult to build healthy economies in the Eastern Mediterranean countries?
7. How are populations of Lebanon and Israel different from other countries in the region?

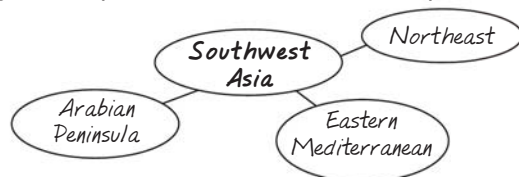
The Northeast (pp. 516–521)

8. How are language, ethnic groups, and religion in the Northeast region different from other parts of Southwest Asia?
9. What steps need to be taken to improve the economies of the Northeast region?
10. Why are there internal struggles in some of the nations of the Northeast region?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.



- How is Israel different from the other nations in the region?
- How must infrastructure be changed in the region?

2. Geographic Themes

- HUMAN-ENVIRONMENT INTERACTION** What impact does the presence of oil in the region have on the economies of the countries in Southwest Asia?
- LOCATION** How would Israel's relative location be described?

3. Identifying Themes

Which nations are dealing with large numbers of refugees or immigrants? Which of the five themes applies to this situation?

4. Making Inferences

How has the presence of many different ethnic groups in this region caused political unrest?

5. Making Generalizations

In what ways has oil production changed life in Southwest Asia?

Additional Test Practice,
pp. S1–S37



TEST PRACTICE
CLASSZONE.COM

Geographic Skills: Interpreting Maps

Ottoman Empire, 1683

Use the map at the right to answer the following questions.

- LOCATION** What is the relative location of the Ottoman Empire?
- PLACE** On which continents was the Ottoman Empire located?
- PLACE** Which large bodies of water are within the Ottoman Empire?



On a current map showing the same area as in the map at the right, outline the Ottoman Empire. Make a list of the modern countries that were once a part of the Ottoman Empire.



INTERNET ACTIVITY

Use the links at classzone.com to do research about OPEC. Make a list of the current members of the organization. Focus on the impact on the price of oil as a result of actions taken by the group.

Analyzing Data Study the data you collected on oil prices and the actions of OPEC. Create charts or graphs to illustrate the information. Then write a generalization about the information you found.

TODAY'S ISSUES

Southwest Asia

SECTION 1

Population Relocation

SECTION 2

Oil Wealth Fuels
Change

CASE STUDY

RELIGIOUS CONFLICT
OVER LAND

For more on these issues in
Southwest Asia . . .



CURRENT EVENTS
CLASSZONE.COM

A Kurdish family rests
at its camp in eastern
Turkey. Many Kurds
are nomadic and move
across lands in several
countries.

GeoFocus

Can Southwest Asia solve
long-standing problems?

Taking Notes Copy the cause-and-effect
chart below into your notebook. Use it to
record information about solving economic
and political problems in Southwest Asia.

	Causes	Effects
Issue 1: Population Relocation		
Issue 2: Economic Development		
Case Study: Religious Conflict		





Population Relocation

What kind of population movement is taking place in Southwest Asia?

A HUMAN PERSPECTIVE In the 1980s, Kurds living in Turkey were attacked by the Turkish military. The parents of 10-year-old Garbi Yildirim feared for their son's safety. Reluctantly they sent him from Turkey to live with relatives in Germany. When Garbi reached his 18th birthday, he was notified by the German government that he would have to return to Turkey. Upon his return, he knew that he would have to serve in the Turkish military. This meant he would have to use weapons against his own people—the Kurds. He refused to return to Turkey and was placed in a deportation prison to await the recommendation of a German court on the case. Garbi's case is an example of the problems some ethnic groups face in Southwest Asia.

New Industry Requires More Workers

Life in Southwest Asia in 1900 seemed only slightly different from life there in 1100. Some people lived in villages or cities while others moved livestock from one source of water to another.

Then, in the early years of the 20th century, everything changed. Geologists discovered huge deposits of petroleum and natural gas under the sands and seas of Southwest Asia. Western oil companies quickly leased land in the region and supplied the technology and the workers to pump the fuel from the ground.

Many countries in Southwest Asia grew enormously wealthy from oil profits. The oil boom set off decades of rapid urbanization. Extensive road construction made cities and towns more accessible. Many thousands of people migrated to the cities in search of jobs and a chance to share in the region's newfound riches. So many jobs were available that some were left unfilled.

FOREIGN WORKERS To fill the job openings, companies recruited people, mostly from South and East Asia. These “**guest workers**” are largely unskilled laborers. They fill jobs that the region's native peoples find culturally or economically unacceptable. In parts of the Arabian Peninsula, the immigrant workers actually outnumber the native workers. For example, in 1999, nearly 90 percent of the United Arab Emirates (UAE) work force was made up of immigrants.

Main Ideas

- Economic growth brings foreign workers to the region.
- Political factors have shifted the region's population.

Places & Terms

guest workers

stateless nation

Palestinians

West Bank

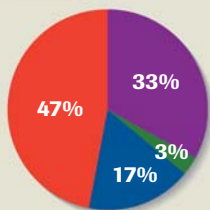
Gaza Strip

PLACE Great wealth makes this United Arab Emirates golf club possible. In the middle of the desert, it features green fairways, a pool, and a freshwater lake. Guest workers fill jobs at sites like this.

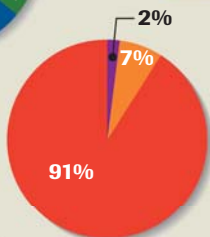


Foreign Workers

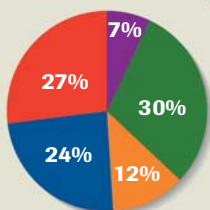
Bahrain



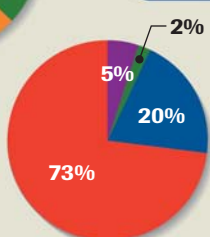
Iraq



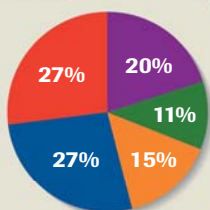
Kuwait



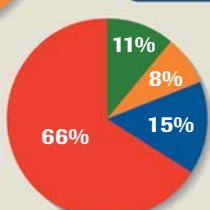
Oman



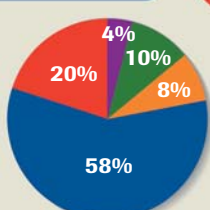
Qatar



Saudi Arabia



United Arab Emirates



SOURCE: CIA Atlas of the Middle East, 1993

Country citizens
Asian
African
Other Middle East
Other

SKILLBUILDER: Interpreting Graphs

- ANALYZING DATA** In which country is the percentage of country nationals the lowest?
- MAKING GENERALIZATIONS** How could the impact of foreign workers in the region be described?

PROBLEMS OF GUEST WORKERS The presence of so many guest workers has led to problems. Cultural differences often exist between the guest workers and their employers. Misunderstandings over certain customs can result in severe penalties. For example, a Filipino man was given six months in jail and expelled from the UAE for brushing past a woman on a bus. Arabs viewed his behavior as insulting to the woman.

Sometimes the workers must live in special districts apart from the Arab population. Some workers have been abandoned. Others receive no wages for months at a time. Many immigrants find themselves unemployed and without money to get back home.

The large number of guest workers is a concern to the governments of Southwest Asia. Some government officials worry that depending on these workers will prevent their nation's own workers from developing their skills. Others worry about the intolerance and even violence that these workers face. And, finally, some fear the immigrants could weaken their country's sense of national identity. Solving the cultural and economic issues over guest workers will be a challenge to the governments of the region. **A**

Political Refugees Face Challenges

Rapidly changing economic conditions have caused population shifts in Southwest Asia. Political conflict in the region has also caused relocation.

STATELESS NATION One of the longest conflicts has been over the ethnic group known as the Kurds. After World War I, the Allies recommended creating a national state for the group. Instead, the land intended for the Kurds became part of Turkey, Iraq, and Syria. The Kurds became a **stateless nation**—a nation of people without a land to legally occupy. Turkey, Iraq, Iran, and Syria tried to absorb the Kurds into their populations but were not successful. The Kurds resisted control in each of the countries. Governments forcibly moved thousands of Kurds in an attempt to control them.

In Iraq, this forced migration ruined Kurdish homes, settlements, and farms. As you read in Chapter 22, the Iraqi government used deadly chemical weapons on settlements of Kurds to kill them or force them to leave the area. In the year 2000, as many as 70,000 Kurds had been displaced from areas they called home. Many of the Kurds have been forced to live in crowded relocation camps.



Seeing Patterns

- A** How did changes in the economy of the region change the make-up of the population?

PALESTINIAN REFUGEES Another group of people who have been displaced in the region are the **Palestinians**. They are the Arabs and their descendants who lived or still live in the area formerly called Palestine and now called Israel. Palestinians live in relocation camps in Israel, in other parts of the region, and throughout the world. This group of people, like the Kurds, consider themselves a stateless nation.

As you read in Chapter 22, war immediately followed the creation of Israel in 1948. Arabs in Palestine were promised a homeland. (See map on page 512.) However, Israel occupied some of those lands during the 1948-49 war. Between 520,000 and 1,000,000 persons fled Israel. Fifty-two refugee camps for Arab Palestinians were established in Lebanon, Jordan, Syria, the West Bank, and the Gaza Strip. The **West Bank** is a strip of land on the west side of the Jordan River. Jordan originally controlled the land, but it lost control of the land in a war with Israel in 1967. The **Gaza Strip** is a territory along the Mediterranean Sea just northeast of the Sinai Peninsula. Israel occupied it in the same 1967 war. **B**

The refugees have not been able to return to the areas of Israel that they claim are theirs. The number of Palestinians living in the refugee camps or in other parts of Southwest Asia has now swelled to an estimated 3.6 million persons. By 2005 there will be an estimated 8.2 million worldwide. Thousands have lived and died in refugee camps without ever being able to return to lands they claim as their homeland. Their presence and their demand to return to Palestine are at the heart of many conflicts in the region.



PLACE Palestinian and Israeli teens discuss concerns they share about their future in the region.
How could land claims in Israel affect these students' future?



Making Comparisons

B In what ways are the reasons for the Kurds' or Palestinians' land claims different?



Assessment

1 Places & Terms

Identify and explain where in the region these would be found.

- guest workers
- stateless nation
- Palestinians
- West Bank
- Gaza Strip

2 Taking Notes

MOVEMENT Review the notes you took for this section.

	Causes	Effects
Issue 1: <i>Population Relocation</i>		

- What are the causes of population movement in the region?
- What are "stateless nations"?

3 Main Ideas

- Why is there a need for guest workers in this region?
- What makes the Kurds a stateless nation?
- In which areas are Palestinian refugee camps found?

4 Geographic Thinking

Identifying and Solving Problems What problems are created by the presence of guest workers in the region, and how might the problems be solved? **Think about:**

- cultural differences
- national identity

S See Skillbuilder Handbook, page R10.



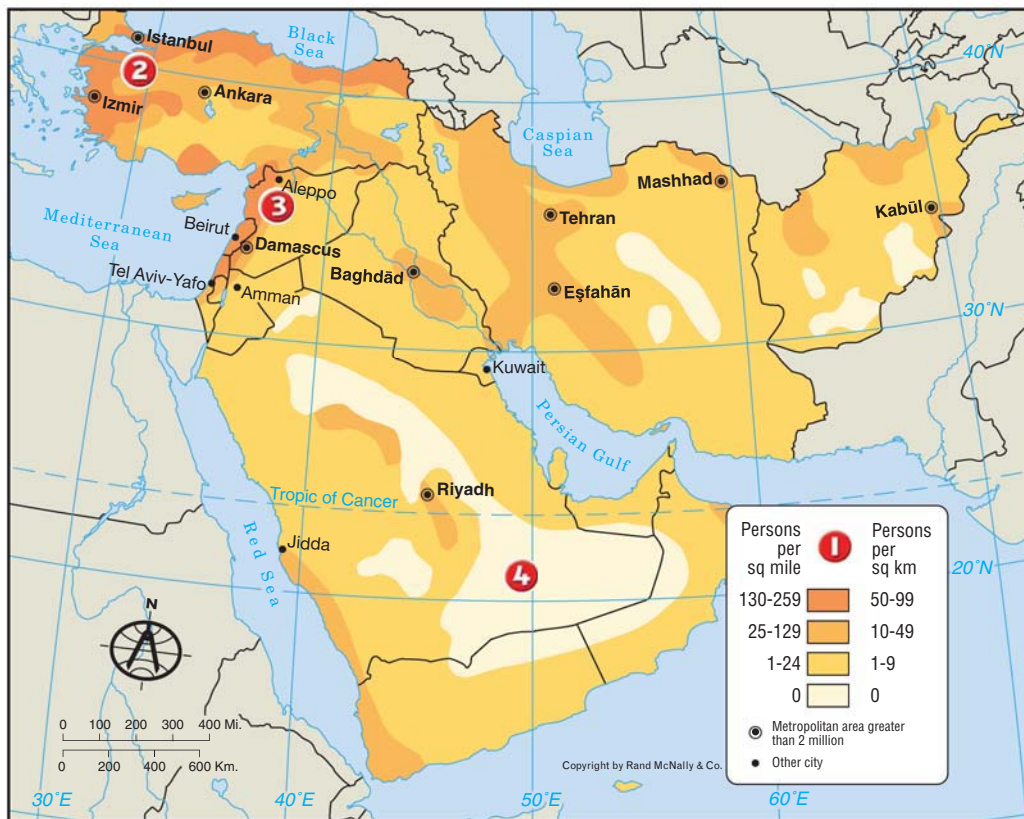
MAKING COMPARISONS Do some additional research to find out more about the land claims of the Kurds and the Palestinians. Then create a **Venn diagram** showing the ways in which the Kurds' and the Palestinians' land claims are similar to and different from each other.

Interpreting a Population Density Map

How crowded is the area in which you live? Are there cities near you that have very large populations? Population density maps help geographers learn the distribution as well as the density of the population. Notice how the map below shows that Southwest Asia has areas of very dense population and other areas where almost no one lives.

THE LANGUAGE OF MAPS A **population density map** shows where people live and how crowded the conditions are. Population density is measured by dividing the total population in an area by the total number of square miles or square kilometers. The results are stated as numbers of persons per square mile or square kilometer. The density is indicated by colors. Population maps also use symbols to show cities with large populations.

Population Density of Southwest Asia



- 1 The key uses colors to show ranges of population density and symbols to show cities of different sizes.
- 2 Notice that densities are greater near large cities.
- 3 Population density patterns show heavier populations in some areas near water.
- 4 Uninhabited areas usually are regions with inhospitable climates or landforms.

Map and Graph Skills Assessment

1. Drawing Conclusions

In which parts of the region are the largest number of cities found?

2. Making Comparisons

Which of the two cities, Aleppo or Beirut, is more densely populated?

3. Making Generalizations

Use the atlas map on page 481. Which country has the largest areas of uninhabited land?



Oil Wealth Fuels Change

How can oil wealth help develop the region's economies?

A HUMAN PERSPECTIVE On October 2, 1995, Queen Noor of the Kingdom of Jordan gave a speech on the role of women in Southwest Asian economies. In her speech, she identified an important change in the economies of Southwest Asia:

The changing environment in our region holds the promise of new opportunity for businessmen and women. Middle Eastern women are overcoming discriminatory socio-cultural constraints [limitations] that once denied them equal access to services and hindered [slowed] their participation in the economy.

Queen Noor described one of the ways in which countries in the region are using the skills of their people to change the economy. Today, money earned from the region's most important export—oil—is helping to build a more diverse economy.

Main Ideas

- Oil wealth brings political and economic changes to the region.
- To achieve a diversified economy, countries need to improve infrastructure and resource use.

Places & Terms

strategic commodity

human resources



**The Voyageur Experience
in World Geography**

United Arab Emirates:

Oil and Water Resources

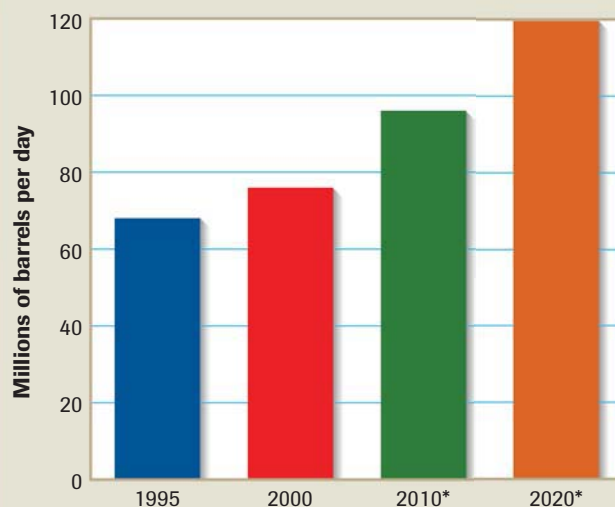
Meeting the Global Demand

At the start of the 21st century, oil fueled the world's industries and transportation—and its economies. This “black gold” was so vital that oil became a **strategic commodity**, a resource so important that nations will go to war to ensure its steady supply.

Southwest Asia contains much of the oil supply. As you learned in Chapter 21, about 64 percent of the world's proven oil deposits and 34 percent of its reserves of natural gas are found in this region. By the year 2020, exports from Southwest Asia will probably provide about 44.5 million barrels of oil per day, or about 50 percent of world demand.

These oil reserves haven't always been of great benefit. One problem is that the world's oil prices rise and fall unpredictably. As a result, Southwest Asian countries cannot always plan how much revenue oil will bring in. Unpredictable oil prices have also made it difficult for the region's nations to have steady economic growth. For instance, when oil prices were low in 1996 and 1997, Southwest Asia's economies grew slowly. Because of that experience, the nations of that region realized that they could not continue to base their economies only on oil.

World Oil Demand



SOURCES: Congressional Research Service and the International Energy Agency

*projected

SKILLBUILDER: Interpreting Graphs

- 1 MAKING GENERALIZATIONS** By about how much will oil demand increase by the year 2020?
- 2 ANALYZING DATA** During which decade is demand projected to increase most sharply?

SW ASIA

Using Oil Wealth to Diversify

To promote more economic growth, the oil-rich nations of Southwest Asia face three challenges in the way that they use oil profits. First, each has to modernize its infrastructure. Second, each has to develop its agricultural, mineral, and water resources. Finally, the people of each nation have to gain access to higher education and job training.

MODERNIZING THE INFRASTRUCTURE The region has improved its infrastructure. Saudi Arabia, for example, has built new roads in rural areas, irrigation networks, and facilities to store agricultural products. It has also built desalinization plants that remove the salt from seawater and provide water for cities and industrial use.

Other nations have constructed airports, shopping malls, and port facilities. These efforts are not always well coordinated, though. Some years ago, the UAE built four international airports to serve an area about the size of the state of Maine. Needless to say, these airports are greatly underused.

Toward the end of the 20th century, nations in the region began putting together information technology systems to serve businesses. Dubai launched a plan in 2000 called Internet City. The plan made it possible for its government to conduct business on-line.

HUMAN-ENVIRONMENT INTERACTION

Using overhead sprinkler systems to bring water to desert areas will make them green. Compare the watered fields to the rest of the Negev Desert shown in the lower picture.



BACKGROUND

Water produced by desalinization is not always pure enough for drinking purposes but can be used in sanitation.

DEVELOPING RESOURCES To create a diversified economy, nations of the area have to develop resources besides oil. One of the greatest needs is to develop agriculture. The region's arid conditions mean that the area is not able to produce great quantities of food. To trap much-needed water for agricultural production, governments have built dams. They have also dug deep wells to tap the water trapped in huge underground reservoirs.

Saudi Arabia can boast several economic success stories. By 1985, improvements in agriculture allowed the Saudis to completely meet the nation's demand for dairy products, red meat, poultry, and eggs. The biggest Saudi success story, however, was wheat production. The Saudis were determined to reduce their dependence on imported wheat. They improved water supplies so that grain production could be expanded. By 1992, they were producing more than four million tons of grain per year. This was enough to actually meet their needs and to have wheat to export. This diversification of the Saudi economy would not have happened without significant investment in infrastructure. That investment, in turn, was made possible by oil profits. **A**



Seeing Patterns

A How are the expansion of water production and increased agricultural output connected?



Making Comparisons

B How is the diversification of Oman's economy different from that of Saudi Arabia?

Other nations are making efforts to develop other mineral resources. Oman revived its copper industry and chromium mines. Chromium is used in steel production for jet aircraft. Expanding these industries allowed the Omani economy to reduce its dependence on oil profits. **B**

HUMAN RESOURCES People are a valuable resource in any nation. Southwest Asian nations are developing their **human resources**—the skills and talents of their people. Many of those nations also realize that they must invest in all their people, including women. Provid-

ing education and technology training is critical. Nations are expanding the opportunities for their citizens to gain an education. For example, Kuwait has established free education for all children through the university level. For students who wish to study outside the country, the government pays the fees and provides money to cover living expenses.

Many societies in Southwest Asia have strict rules concerning women's roles in society. Often it is difficult for women to get an education and find employment. However, the shortage of workers in the region has opened economic opportunities for women. Important economic and political changes are taking place in Southwest Asia. As the nations work to develop their physical and human resources, opportunities for all who live there will expand. A successful economy is built on the efforts of all its people working together toward the goal of diversification.



PLACE Muslim girls in Tehran, Iran, discuss a lesson.

Why is it important for all citizens to be educated?



Assessment

1 Places & Terms

Identify and explain the meaning of these terms.

- strategic commodity
- human resources

2 Taking Notes

REGION Review the notes you took for this section.

	Causes	Effects
Issue 2: Economic Development		

- Why are this region's resources so valuable?
- What changes need to be made to the region's infrastructure?

3 Main Ideas

- What effect have unpredictable oil prices had on the economy of the region?
- What steps have nations in the region taken to diversify their economic base?
- Why must the human resources of the region be developed?

4 Geographic Thinking

Determining Cause and Effect How has oil wealth changed the economy of the region? **Think about:**

- the cost of modernizing the infrastructure
- the need for a diverse economy

S See Skillbuilder Handbook, page R9.



MAKING COMPARISONS Do some research to find information about the projected fresh-water supplies for the nations in the region. Create a set of symbols to represent the projected water supply figures. Then draw a **map** of the region, and place the appropriate water supply symbol on each nation.

CASE STUDY

RELIGIOUS CONFLICT OVER LAND

Who should control Jerusalem?



Jerusalem checkpoints deepen Palestinian resentment.

Conflict between Jews and Arabs over land and statehood in Southwest Asia disrupts life in the region. One aspect of this conflict centers around Jerusalem. The city is sacred to Jews, Christians, and Muslims. Control of Jerusalem is a deeply emotional issue that affects the region's politics and population.

Control of Jerusalem

After World War II, the UN recommended that the city of Jerusalem become an international city. It would be under the control of an international body rather than an Arab or a Jewish government. But by the end of the Arab-Israeli war in 1948, Jerusalem was divided between Arabs and Israelis. Arabs took the Old City and East Jerusalem located in the West Bank sector. The Israelis took control of West Jerusalem. During the Six-Day War of 1967, the Israelis captured the rest of Jerusalem.

Control of the holy sites within the Old City also became an issue. Although the Israelis captured the city, the Muslims retained control of their holy site, *Haram ash-Sharif*, called the Temple Mount by the Jews.

As the Israelis gained control of the entire city of Jerusalem, they began adding Arab lands to the city. They placed Jewish settlements on those lands. Palestinian Arabs fled or were forced to leave the settlement lands. The Palestinians in Jerusalem and elsewhere have maintained they should have the "right of return" to the lands in Israel. Their claims are supported by United Nations Resolution 194, which states that Palestinians have the "right of return" to former homelands.



1940 ARAB-ISRAELI CONFLICT

1960

1970

1980

1990

2000

1948

The **State of Israel** is created; war with Arabs follows immediately.

1967

Israel takes control of Jerusalem, West Bank, and Gaza Strip at the end of the Six-Day War.

1978

Camp David Accords set up Palestinian self-rule in West Bank.

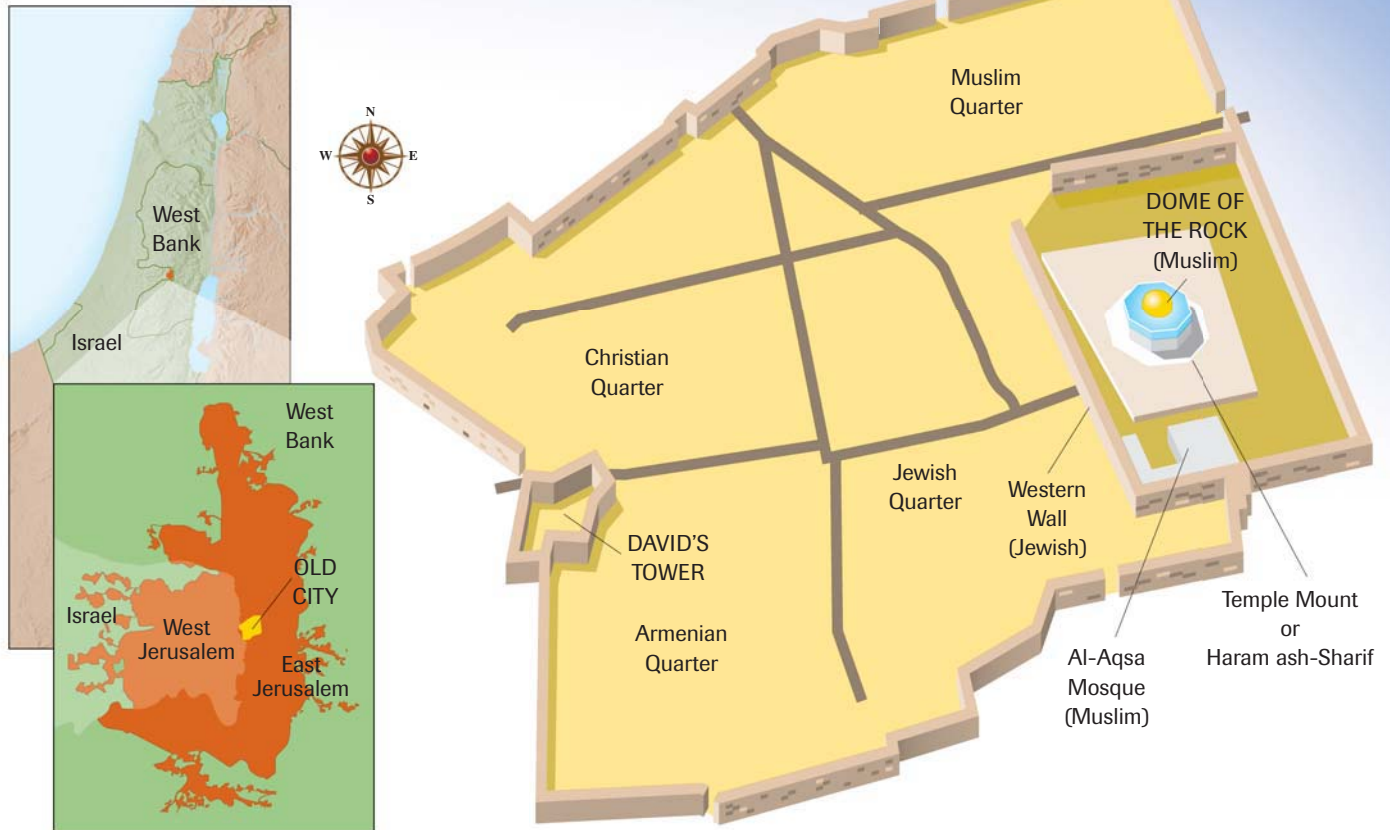


1993

Oslo Accords allow Palestinians to establish self-rule in West Bank and Gaza Strip.

Jerusalem: The Old City

INTERACTIVE



Proposed Solutions to the Conflict

SEE

PRIMARY SOURCE D

The emotional and political issue of who should control Jerusalem makes it a very difficult diplomatic problem to solve. Because both the Israelis and the Palestinians claim Jerusalem as the capital of their nation, neither is willing to give it up to the other group. The following solutions have been proposed for control of Jerusalem:

- Palestinians retain control of certain parts of East Jerusalem while Israel annexes several Jewish settlements near Jerusalem. This would enlarge Israeli territory in the area.
- Israel retains control of West Jerusalem and the Jewish Quarter of the Old City, but the Palestinians control the Old City and East Jerusalem. This is basically how the city is controlled today.
- Palestinians control the Temple Mount but give up the right of return to Israel. The Israeli government fears that the sheer numbers of returning Palestinians would overwhelm Israel.
- An international agency has control of all holy sites.

SEE

PRIMARY SOURCE C

On the following pages, you will find primary sources that present different views on the control of the city of Jerusalem. Use them to help you form an opinion about the best way to solve the problem.

CASE STUDY

PROJECT

Primary sources A, B, C, D, and E on these two pages offer differing views about control of Jerusalem. Use these resources along with your own research to prepare a peace conference that presents both Israeli and Arab solutions for control of Jerusalem.



RESEARCH LINKS
CLASSZONE.COM

A Peace Conference

Suggested Steps

1. Choose one of the proposed solutions to the control of Jerusalem to investigate.
2. Use online and print resources to research the positions of Israelis, Palestinians, and Americans.
3. Create visuals—maps, charts, graphs—to make the conference discussion clearer.
4. Select two or three representatives from each group to take part in the conference. The rest of the class should act as journalists, take notes on the presentation, and be prepared to ask questions of the representatives.

Materials and Supplies

- Posterboard
- Markers
- Reference books, newspapers, and magazines
- Video monitor with VCR or DVD capability
- Computer with Internet access/printer

PRIMARY SOURCE A

United Nations Resolution UN Resolution 181, adopted on November 29, 1947, declared that Jerusalem would become an international city with both Jewish and Muslim inhabitants.

Part III City of Jerusalem

A. The City of Jerusalem shall be established as a *corpus separatum* [separate body] under a special international regime and shall be administered by the United Nations. The Trusteeship Council shall be designated to discharge the responsibilities of the Administering Authority on behalf of the United Nations.

* * *

C. 1(a) To protect and to preserve the unique spiritual and religious interests located in the city of the three great monotheistic faiths throughout the world, Christian, Jewish, and Moslem; to this end to ensure that order and peace, and especially religious peace, reign in Jerusalem.

(b) To foster co-operation among all the inhabitants of the city in their own interests as well as in order to encourage and support the peaceful development of the mutual relations between the two Palestinian peoples throughout the Holy Land.

PRIMARY SOURCE B

Official Statement This statement was made December 31, 2000, by the Palestinian cabinet, which opposed President Clinton's plan for resolving the issue of "right of return" and control of the holy sites in Jerusalem.

The Palestinian leadership confirms its commitment to the full right of refugees to return to their lands and homes in accordance with Resolution 194, the cabinet said, referring to the United Nations resolution adopted in December 1948.

Our people will never, under any circumstances, concede one inch from our Jerusalem and our Islamic and Christian holy sites.

PRIMARY SOURCE C

Personal Observation Yossi Sarid, head of the Meretz party in Israel, is a leading advocate of peace in the region. On December 31, 2000, he expressed his opinion on the central issue of the Palestinian right of return.

There is only one issue that could, God forbid, make this [Clinton peace proposal] fail, and that is the right of return. It is important for the Palestinians to understand and internalize this. Realization of the right of return means—how should I put it?—the suicide of Israel.

If we open the gates to hundreds of thousands of refugees, that means the state of Israel as created by the Zionist dream will be bankrupt.

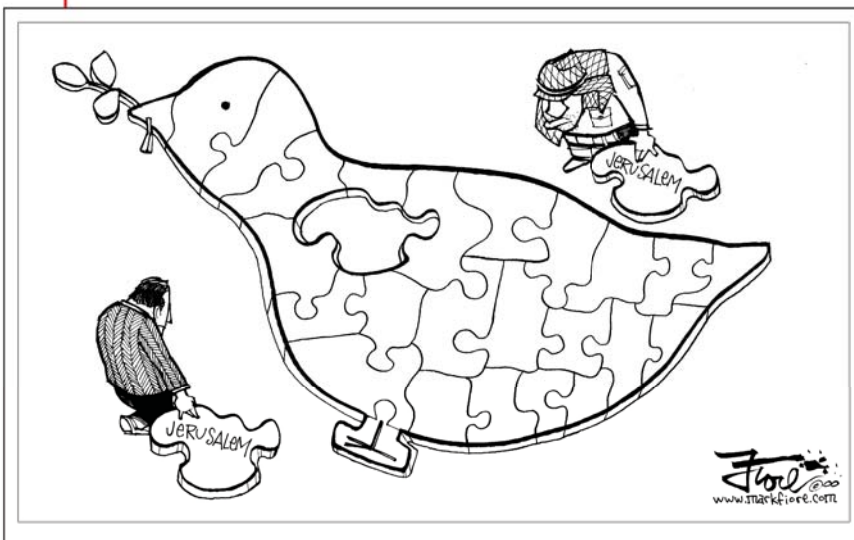
PRIMARY SOURCE D

Editorial Commentary Kenneth L. Woodward, religion editor for Newsweek magazine, expresses an opinion about why any solution for the Jerusalem question is one that is important not just to Jews and Arabs but to millions of others.

Thus, for billions of believers who may never see it, Jerusalem remains a city central to their sacred geography. This is why the future of the city is not just another Middle Eastern conflict between Arabs and Jews. . . . Both Israel and the Palestinians have real roots in the Holy Land, and both want to claim Jerusalem as their capital. The United Nations, supported by the Vatican, would have the city internationalized under its jurisdiction. The issue, however, is not merely one of geopolitics. There will be no enduring solution to the question of Jerusalem that does not respect the attachments to the city formed by each faith. Whoever controls Jerusalem will always be constrained by the meaning the city has acquired over three millennia of wars, conquest and prophetic utterance.

PRIMARY SOURCE E

Political Cartoon Mark Fiore drew this cartoon about the situation in Jerusalem. What message is the cartoonist sending about prospects for peace between Israelis and Palestinians?

**PROJECT Checklist****Have I . . .**

- ✓ looked at all sides of the issue?
- ✓ identified the key players and their points of view?
- ✓ created informative visuals that make my presentation clear and interesting?
- ✓ practiced the delivery of my presentation?

VISUAL SUMMARY TODAY'S ISSUES IN SOUTHWEST ASIA

Population

Population Relocation

- Urban areas in the region have grown significantly since the 1960s.
- Thousands of foreign workers fill jobs in the region.
- Kurds claim homelands in four countries: Turkey, Iraq, Iran, and Syria.
- Arab Palestinians claim lands in Israel.



Economics

Oil Wealth Fuels Change

- Huge oil resources shape the region's economy.
- The infrastructure needs to be updated.
- The region's economy must be diversified.
- Human resources need to be developed.



Conflict

Religious Conflict Over Land

- Jerusalem is holy to three major religions: Judaism, Christianity, and Islam.
- Israel controls Jerusalem.
- Control of holy sites in Jerusalem is one aspect of the conflict.
- Arab Palestinians claim the "right of return" to Jerusalem, after leaving it as the result of wars.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

1. guest workers
2. stateless nation
3. Palestinians
4. West Bank
5. Gaza Strip
6. strategic commodity
7. human resources

B. Answer the questions about vocabulary in complete sentences.

8. Why is it necessary to have guest workers in Southwest Asia?
9. Which terms above refer to land areas in Israel?
10. Which of the above terms includes the location of Jerusalem?
11. Why might Palestinians and Kurds be considered stateless nations?
12. Which group claims the right of return to the Gaza Strip?
13. Why is oil considered a strategic commodity?
14. In what way could water be considered a strategic commodity?
15. What groups make up human resources?

Main Ideas

Population Relocation (pp. 525-528)

1. What concerns have been raised about foreign workers in the region?
2. Why don't the Kurds have a homeland?
3. Which lands are claimed by Arab Palestinians?
4. Where do a large majority of Palestinians live?

Oil Wealth Fuels Change (pp. 529-531)

5. Why must nations stop depending solely on oil wealth?
6. Which areas of the region's economy need to be developed and diversified?
7. Why is providing education and technology training an important aspect of developing human resources?

Religious Conflict Over Land (pp. 532-535)

8. How did the Israelis gain control of Jerusalem?
9. What is the "right of return"?
10. What are some proposed solutions to the issue of control of Jerusalem?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.

	<i>Causes</i>	<i>Effects</i>
<i>Issue 1: Population Relocation</i>		
<i>Issue 2: Economic Development</i>		

- How did the Kurds become a stateless nation?
- What effect has an expanding economy had on population relocation in the region?

2. Geographic Themes

- MOVEMENT** How are Palestinian refugee camps and the "right to return" related?
- REGION** Why is this region considered to be a strategic location?

3. Identifying Themes

Why is the control of Jerusalem such a difficult issue to resolve? Which of the five themes applies to this situation?

4. Making Inferences

Why must some oil wealth be used to develop water resources in the region?

5. Making Decisions

Which of the proposed solutions for the control of Jerusalem do you favor and why?

Additional Test Practice,
pp. S1–S37



Geographic Skills: Interpreting Graphs

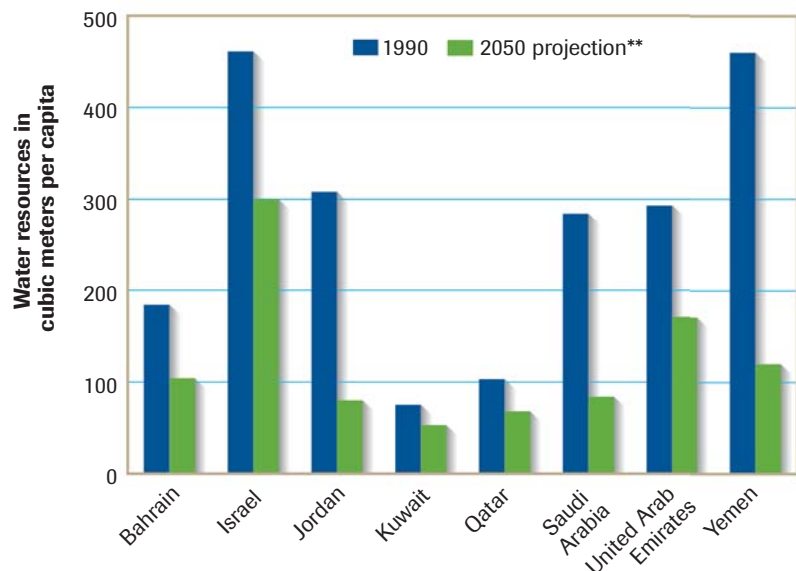
Availability of Water Resources*

Use the graph at the right to answer the following questions.

- MAKING COMPARISONS** Which country is projected to have the greatest available water supplies by 2050? Which country will have the least?
- MAKING INFERENCES** What are some reasons why the availability of water resources will decrease?



Use the Regional Data File to create a chart showing the population of the nations listed in the Water Stress Index. Create a second bar graph showing water stress by placing the countries in order by population.



* Freshwater resources of below 1,000 cubic meters per year per capita will likely cause chronic water shortages.

**Estimates are based on a high projection of population increase.

SOURCE: Adapted from Robert Engelman and Pamela LeRoy, *Sustaining Water: An Update*, Population Action International, Washington D.C. 1995

INTERNET ACTIVITY

Use the links at classzone.com to do research on water scarcity in the region and proposed solutions to the problem. Focus on finding a solution that would be environmentally friendly.

Identifying and Solving Problems Using the information you gathered, propose a solution to the need for fresh water in Southwest Asia. Support your proposal with charts or graphs illustrating both the need for water and the sources of fresh water.



South Asia

PREVIEW: TODAY'S ISSUES IN SOUTH ASIA

UNIT ATLAS

Chapter 24

PHYSICAL GEOGRAPHY

The Land Where Continents Collided

Chapter 25

HUMAN GEOGRAPHY

A Region of Contrasts

Chapter 26

TODAY'S ISSUES

South Asia

CASE STUDY

TERRITORIAL DISPUTE

South Asia includes the Indian subcontinent and its nearby islands. It is a region of ancient cultures, spectacular landforms, and rapidly growing populations.



PLACE The Taj Mahal, at Agra, India, is said to be one of the world's most beautiful buildings. Constructed of marble, it was built in the 17th century by Emperor Shah Jahan as a tomb for his wife.

GeoData

LOCATION South Asia is mainly a triangular peninsula that juts out from the Asian mainland into the Indian Ocean.

REGION The seven countries of South Asia have great cultural and religious diversity.

HUMAN-ENVIRONMENT INTERACTION Life in South Asia is greatly influenced by its varied landforms and its extreme weather, especially the seasonal monsoons.

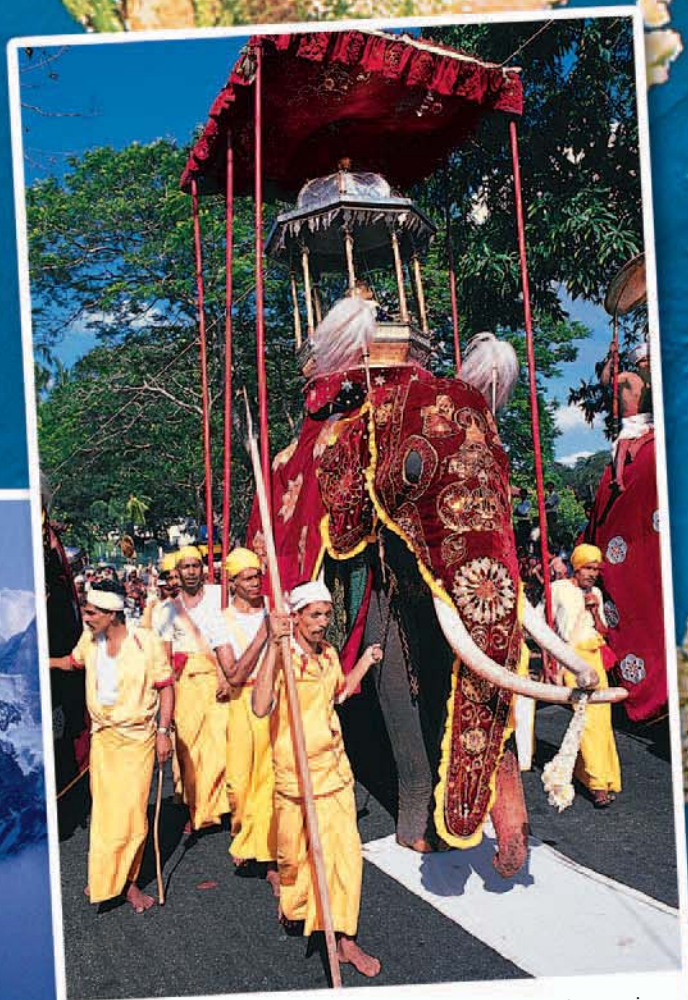
For more information on South Asia . . .



RESEARCH LINKS
CLASSZONE.COM



REGION The world's highest mountains, the majestic snow-capped Himalayas, form the northern border of the Indian subcontinent. Mt. Everest, to the left, is the world's tallest peak at 29,035 feet.



LOCATION Elephants wearing richly decorated cloth coverings are central figures in the 14-night Esala Perahera festival in Kandy, Sri Lanka. It is one of many religious festivals held in South Asia.

Today's Issues in South Asia

Today, South Asia faces the issues previewed here. As you read Chapters 24 and 25, you will learn helpful background information. You will study the issues themselves in Chapter 26.

In a small group, answer the questions below. Then have a class discussion of your answers.

Exploring the Issues

- 1. POPULATION** What might be some of the effects of rapid population growth on both humans and the environment?
- 2. EXTREME WEATHER** Consider news stories that you have heard or read about that refer to extreme weather in various parts of South Asia. Make a list of the types of extreme weather that affect South Asians.
- 3. TERRITORIAL DISPUTE** Search the Internet for the latest information about the dispute over Kashmir. What position does each side hold?

For more on these issues in South Asia . . .



POPULATION EXPLOSION



How can South Asia's population growth be managed?

Many problems come with rapid population growth, including crowded cities. Kolkata, pictured here, had a population of more than 4 million in the 1990s, and a population density of more than 61,900 persons per square mile.

EXTREME WEATHER



How do people cope with extreme weather?

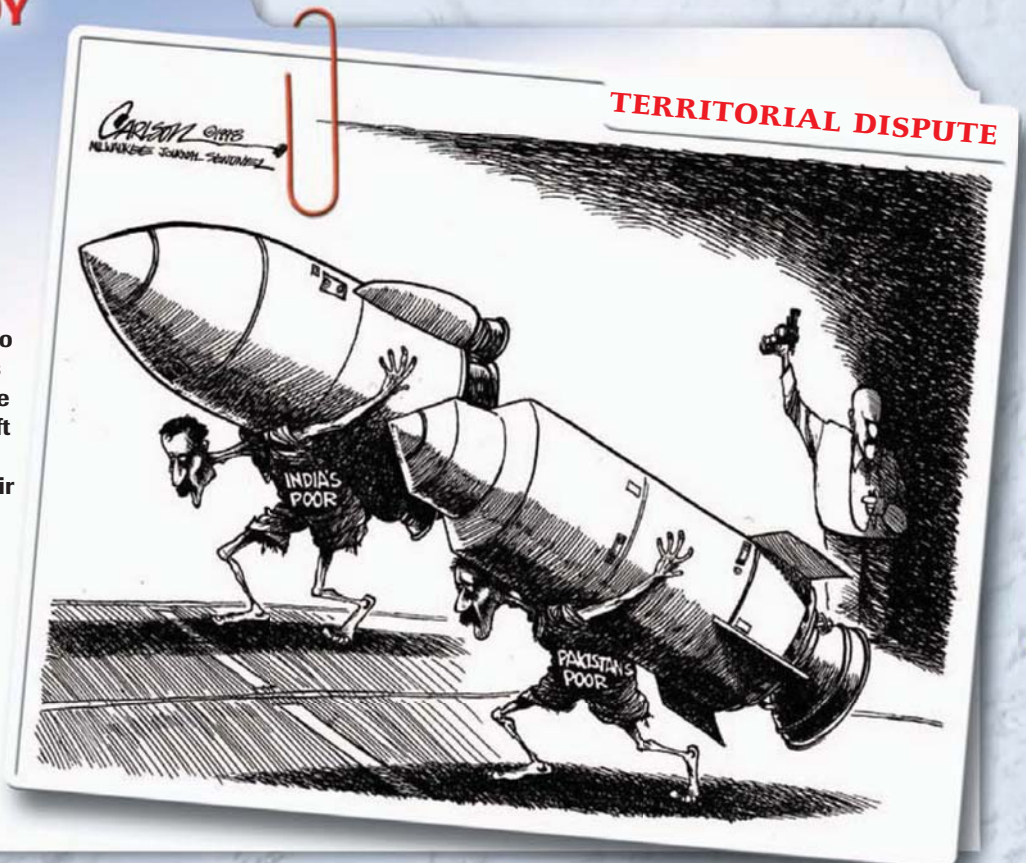
People find a way to continue with their lives despite the severe flooding that plagues South Asia during the summer monsoons. Residents of Dhaka, Bangladesh, shown here, navigate flooded streets as best they can.

CASE STUDY

How can India and Pakistan resolve their dispute over Kashmir?

India and Pakistan have spent millions of dollars to develop nuclear weapons in their continuing dispute over Kashmir. This has left less money to spend on improving the lives of their citizens.

TERRITORIAL DISPUTE



Unit ATLAS



Patterns of Physical Geography

Use the Unit Atlas to add to your knowledge of South Asia. As you look at the maps and charts, notice geographic patterns and specific details about the region. For example, the chart to the right gives details about the rivers and mountains of South Asia.

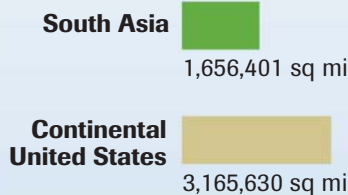
After studying the illustrations, graphs, and physical map on these two pages, jot down in your notebook the answers to the following questions.

Making Comparisons

1. How much longer is the Nile than each of the three major rivers of South Asia?
2. Compare the size and population of South Asia to that of the United States. Which is larger in terms of size? Which is larger in terms of population?
3. How do the tallest mountains of South Asia compare to the tallest U.S. mountain?

Comparing Data

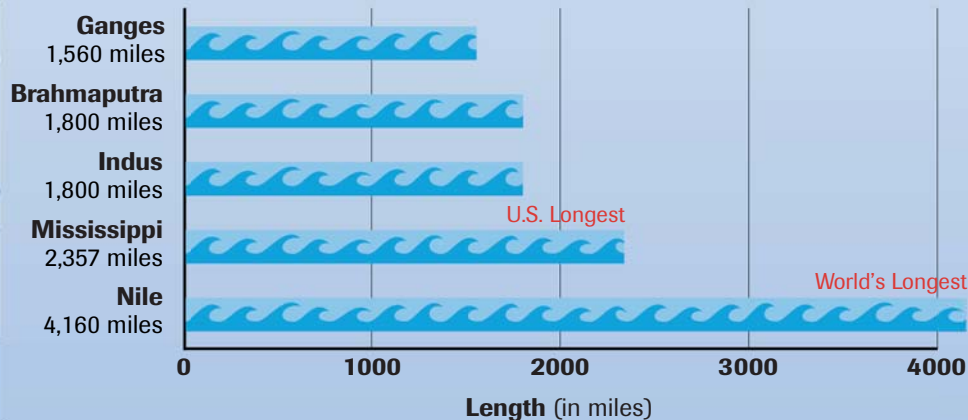
Landmass



Population



Rivers



Mountains



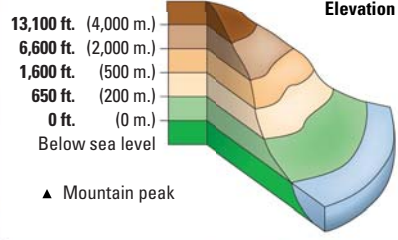
For updated statistics on
South Asia . . .



South Asia: Physical



0 250 500 miles
0 250 500 kilometers
Two-Point Equidistant Projection



Unit ATLAS



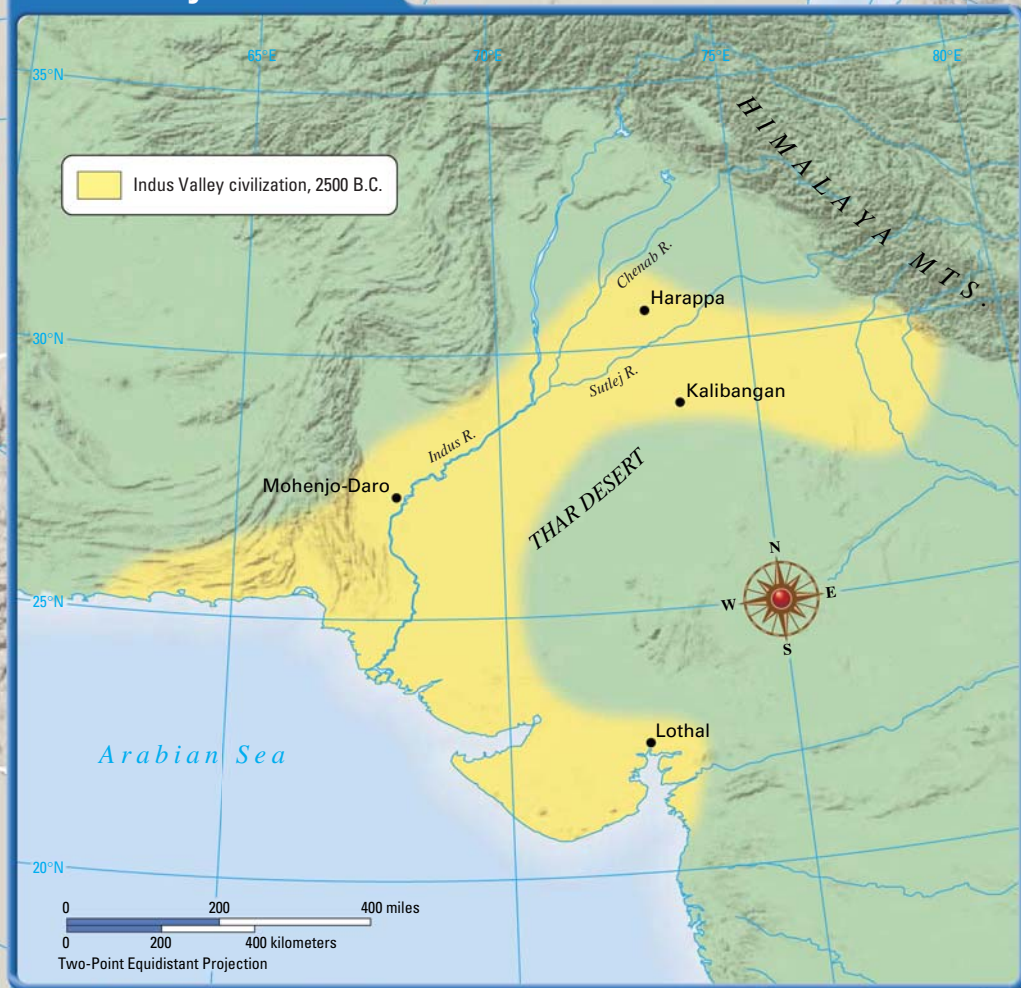
Patterns of Human Geography

The first great civilization of South Asia developed along the banks of the Indus River more than 4,000 years ago. Study the historical map of the Indus Valley civilization and the political map of South Asia on these two pages. In your notebook, jot down the answers to these questions.

Making Comparisons

1. In which countries of modern South Asia was the Indus Valley civilization located? Which of these countries is the larger country?
2. What might have been some of the reasons for a civilization developing at that location?
3. What modern city or cities are closest to the locations of ancient Mohenjo-Daro, Harappa, Kalibangan, and Lothal? (In some cases, more than one city will be an acceptable answer.)

Indus Valley Civilization



South Asia: Political



Unit ATLAS



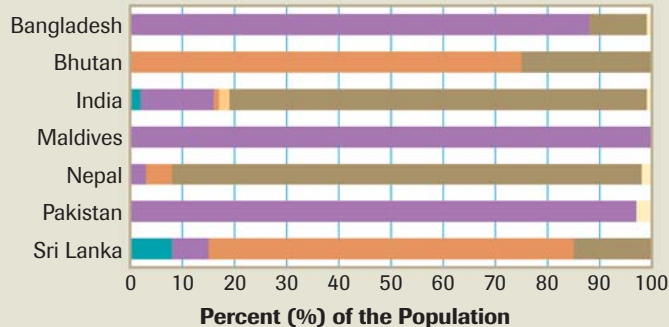
Regional Patterns

These two pages contain a graph and three thematic maps. The graph shows the religions of South Asia. The maps show other important information about religion, population density, and economics. Study these two pages and then jot down in your notebook the answers to the questions below.

Making Comparisons

1. What percentage of the population of Sri Lanka is Hindu, and where are most of the Hindus located? Why might Hindus have settled in Sri Lanka rather than in other areas?
2. Which is the most densely populated country of South Asia?
3. What is the main economic activity in much of South Asia?

South Asia: Religions by Country

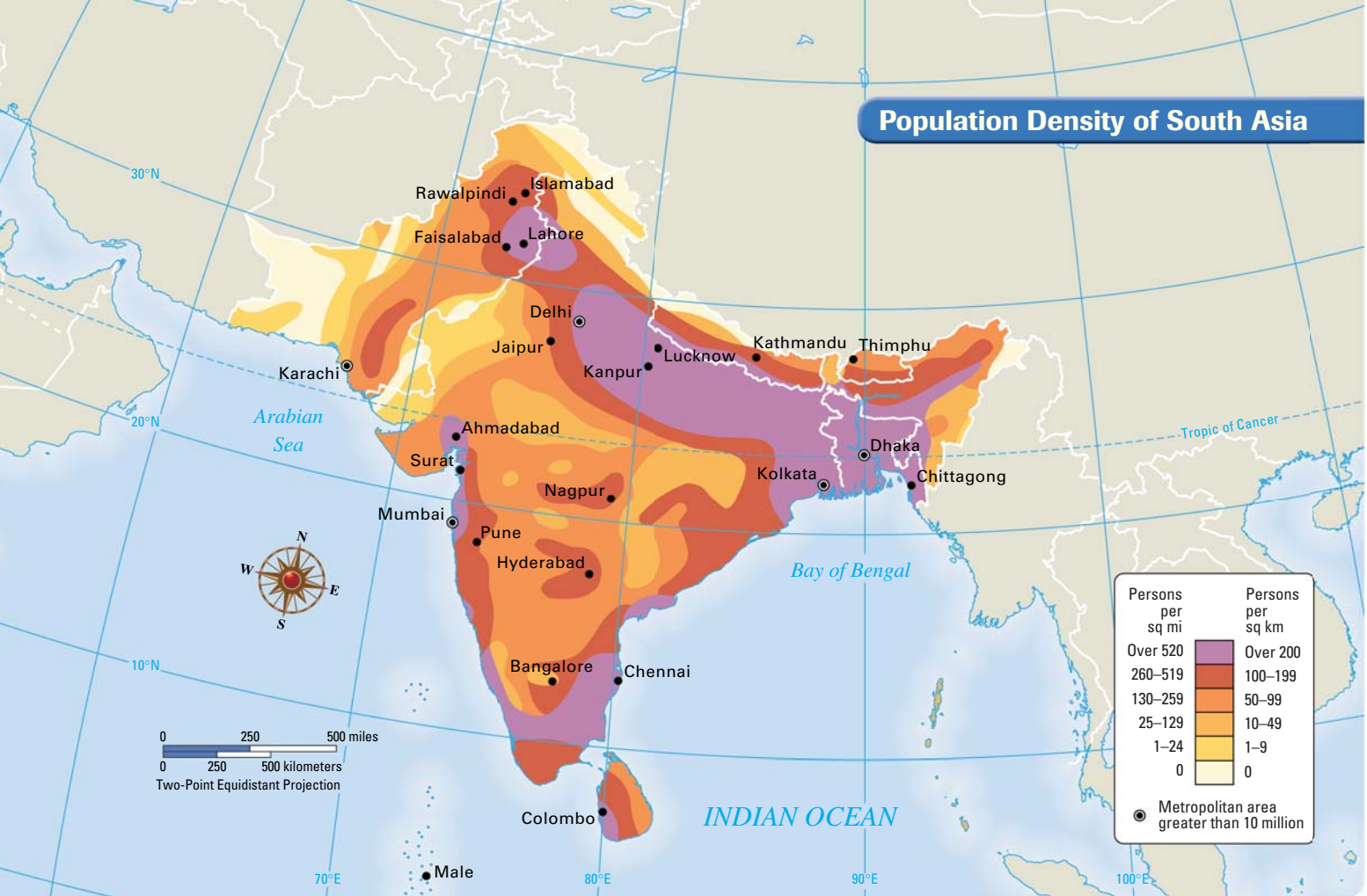


SOURCE: The World Factbook 2000

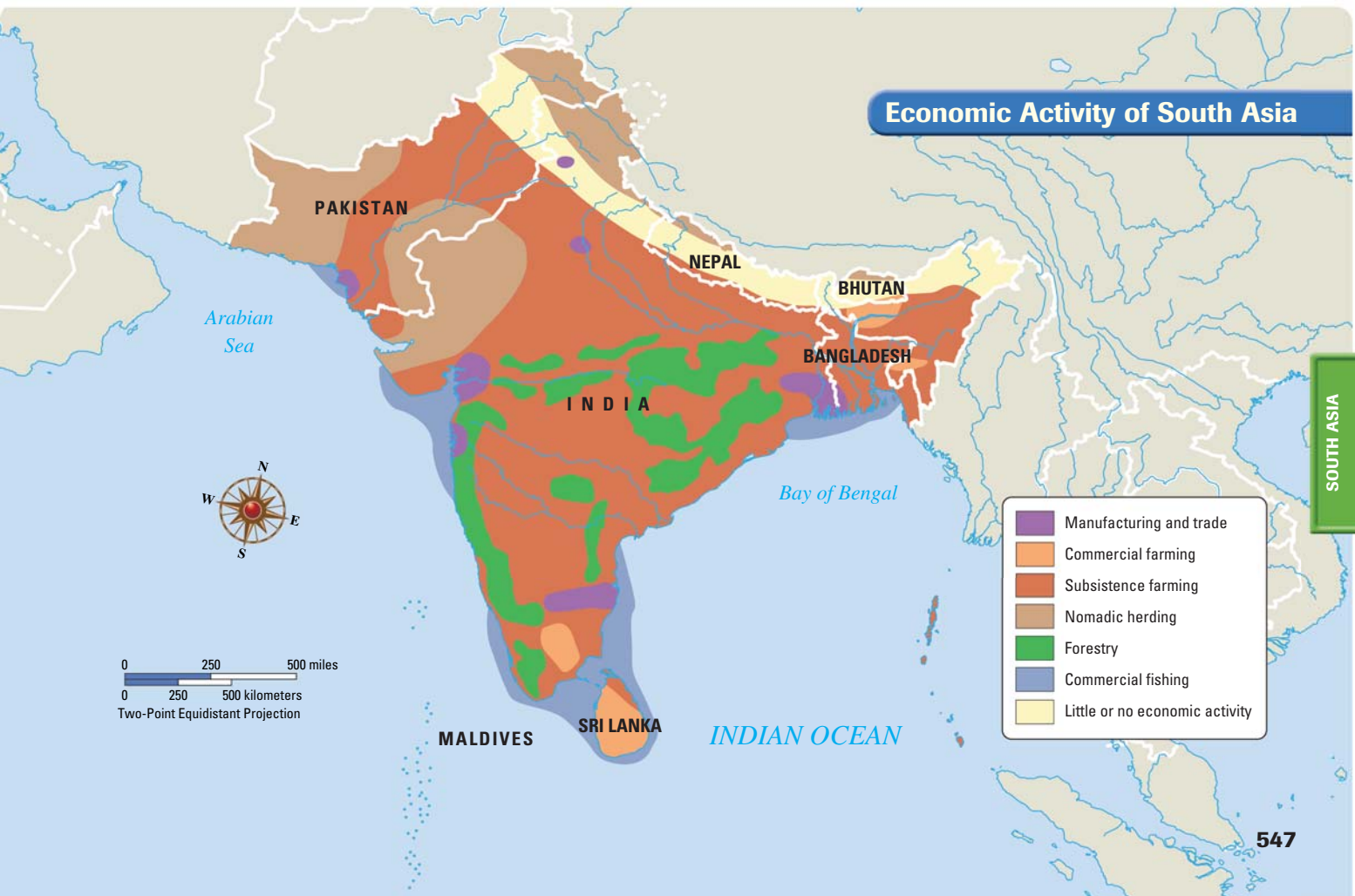
Religions of South Asia



Population Density of South Asia



Economic Activity of South Asia





Regional Data File

Study the information on the countries of South Asia. In your notebook, jot down the answers to these questions.

Making Comparisons

1. Which two South Asian countries have the fewest people? Are they the smallest in area? Locate them on the map.
2. Which South Asian country has the most people? Is it the largest in area? Locate it on the map.
3. Which nation do you think is the poorest? Which factors did you consider in making your choice?

Sources:









Europa World Year Book 2000
Human Development Report 2000,
 United Nations
International Data Base, 2000, U.S.
 Census Bureau online
Merriam-Webster's Geographical Dictionary, 1997
Statesman's Yearbook 2001
2000 World Population Data Sheet,
 Population Reference Bureau
 online
UNESCO World Education Report 2000
WHO Estimates of Health Personnel,
 World Health Organization online
World Almanac and Book of Facts 2001
World Factbook 2000, CIA online
 N/A = not available

Notes:

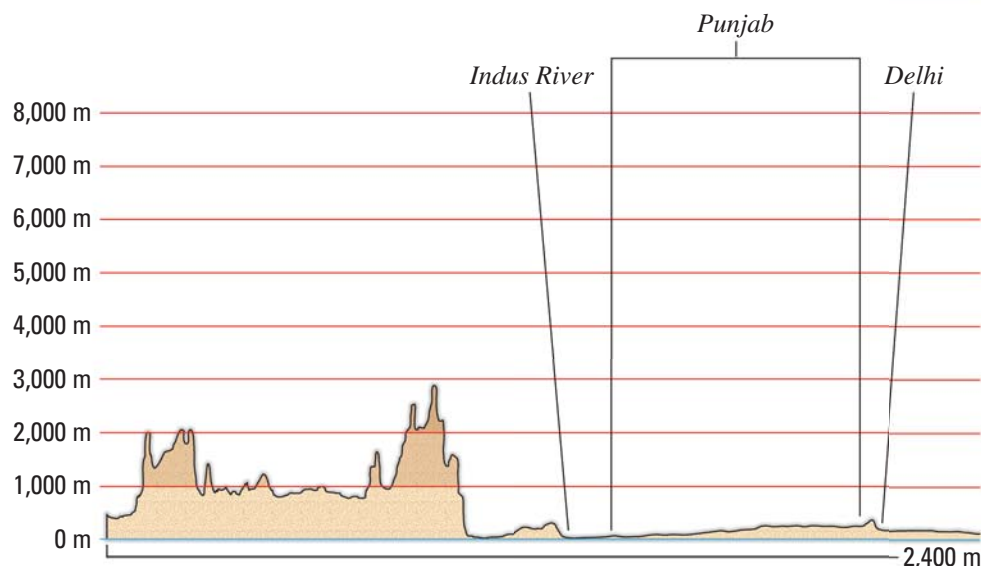
- ^a A comparison of the prices of the same items in different countries is used to figure these data.
^b Includes land and water, when figures are available.
^c Due to census disagreements, the population has been reported as high as 2 million.









For updated statistics on South Asia . . .

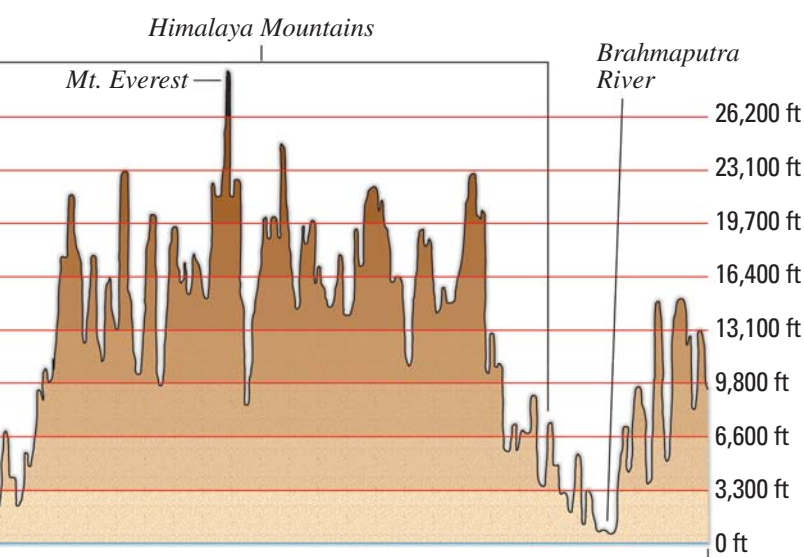


Country Flag	Country/ Capital	Population (2000 estimate)	Life Expectancy (years) (2000 estimate)	Birthrate (per 1,000 pop.) (2000)	Infant Mortality (per 1,000 live births) (2000)
	Bangladesh Dhaka	128,133,000	59	27	82.2
	Bhutan Thimphu	877,000 ^c	66	40	70.7
	India New Delhi	1,002,142,000	61	27	72.0
	Maldives Male	286,000	71	35	27.0
	Nepal Kathmandu	23,930,000	57	36	78.5
	Pakistan Islamabad	150,648,000	58	39	91.0
	Sri Lanka Colombo	19,169,000	72	18	17.3
	United States Washington, D.C.	281,422,000	77	15	7.0

Profile of South Asia



Doctors (per 100,000 pop.) (1992–1999)	GDP ^a (billions \$US) (1999 estimate)	Import/Export ^a (billions \$US) (1998–1999)	Literacy Rate (percentage) (1998)	Televisions (per 1,000 pop.) (1996–1998)	Passenger Cars (per 1,000 pop.) (1996–1999)	Total Area ^b (square miles)	
20	187	8.01 / 5.1	40	7	1	55,126	
16	2.1	0.122 / 0.111	42 (1995)	19	1	16,000	
48	1,805	50.2 / 36.3	56	69	4	1,195,063	
40	0.54	0.312 / 0.098	96	39	3	115	
4	27.4	1.2 / 0.485	39	4	N/A	54,362	
57	282	9.8 / 8.4	44	88	8	310,403	
37	50.5	5.3 / 4.7	91	92	12	25,332	
251	9,255	820.8 / 663.0	97	847	489	3,787,319	



PHYSICAL GEOGRAPHY OF SOUTH ASIA

The Land Where
Continents Collided

SECTION 1

Landforms and
Resources

SECTION 2

Climate and
Vegetation

SECTION 3

Human–Environment
Interaction

Spectacular mountain
peaks tower above a
valley floor in northern
Pakistan.

GeoFocus

**How do mountains
and rivers affect the
lives of the people of
South Asia?**

Taking Notes Copy the graphic organizer
below into your notebook. Use it to record
information from the chapter about the
physical geography of South Asia.

Landforms	
Resources	
Climate and Vegetation	
Human–Environment Interaction	



Landforms and Resources

A HUMAN PERSPECTIVE Thousands of years ago, the Hindus of what is now north India imagined a gigantic mountain reaching more than 80,000 miles into the sky. They believed that this enormous peak, called Mt. Meru, was the center of the physical and spiritual world. In their writings, they described “rivers of sweet water” flowing down the sides of the mountain. While Mt. Meru exists only in myth, it did have a real-life inspiration—Mt. Everest, the world’s tallest mountain peak at 29,035 feet above sea level. Mt. Everest and the other towering peaks of the **Himalaya Mountains** have been a lure to mountain climbers around the world. Many climbers had died on Everest’s icy slopes before Sir Edmund Hillary and Tenzing Norgay, his Sherpa guide, became the first people to reach its summit in 1953.

Mountains and Plateaus

The Himalayas are part of South Asia, a region that includes seven countries—India, Pakistan, Bangladesh, Bhutan, Nepal, Sri Lanka, and the Maldives. South Asia is sometimes called a **subcontinent**, a large landmass that is smaller than a continent. In fact, it is often referred to as the Indian subcontinent because India dominates the region. Although South Asia is about half the size of the continental United States, it has more than one billion inhabitants—one-fifth of the world’s population.

Main Ideas

- South Asia is a subcontinent of peninsulas bordered by mountains and oceans.
- A wide variety of natural resources helps sustain life in the region.

Places & Terms

Himalaya Mountains

subcontinent

alluvial plain

archipelago

atoll

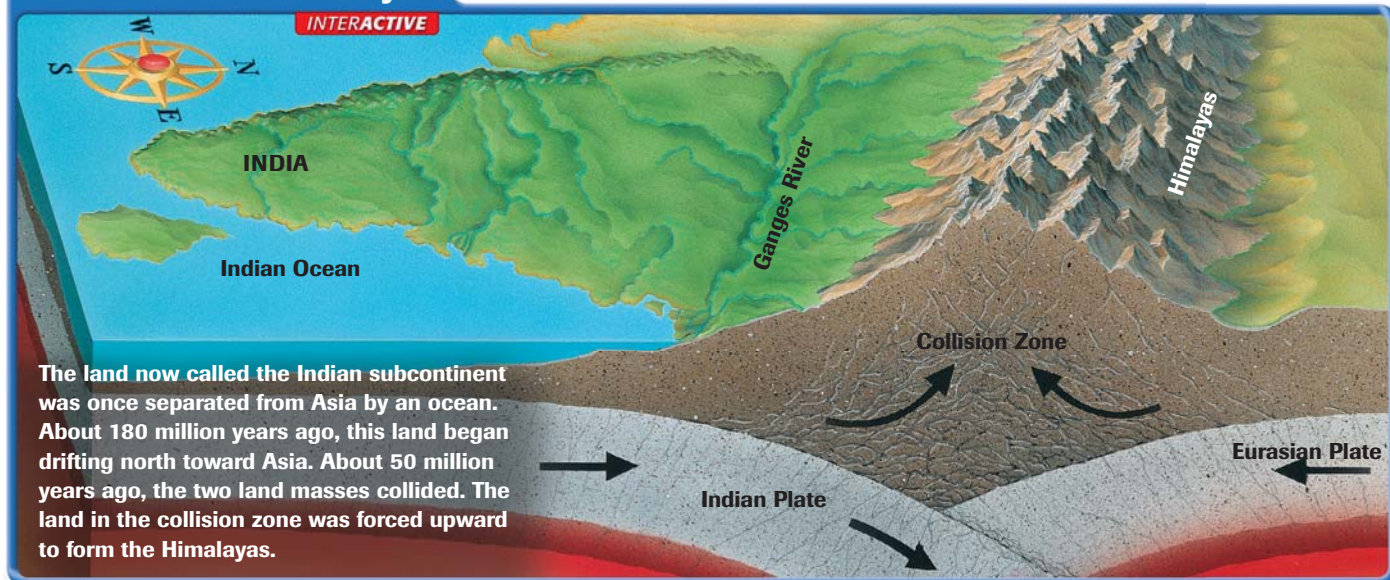
CONNECT TO THE ISSUES

TERRITORIAL DISPUTE

Kashmir is an area in the western Himalayas on the border of India and Pakistan. It has been a source of dispute between the two countries.

Formation of the Himalayas

INTERACTIVE




The land now called the Indian subcontinent was once separated from Asia by an ocean. About 180 million years ago, this land began drifting north toward Asia. About 50 million years ago, the two land masses collided. The land in the collision zone was forced upward to form the Himalayas.

SOUTH ASIA

As you saw on the map on page 543, natural barriers help to separate the South Asian subcontinent from the rest of Asia. The Himalayas and other mountain ranges form the northern border, while water surrounds the rest of the region. The South Asian peninsula, which extends south into the Indian Ocean, is bordered by the Arabian Sea to the west and the Bay of Bengal to the east.

NORTHERN MOUNTAINS Millions of years ago, the land that is now South Asia was actually part of East Africa. About 50 million years ago, it split off and drifted northward. As the illustration on page 551 shows, it collided with Central Asia. The gradual collision of these two large tectonic plates forced the land upward into enormous mountain ranges. These mountains, which are still rising, now form the northern edge of the South Asian subcontinent.

The magnificent Himalayas are a system of parallel mountain ranges. They contain the world's highest mountains, with nearly two dozen peaks rising to 24,000 feet or above. The Himalayas stretch for

1,500 miles and form a giant barrier between the Indian subcontinent and China. Mt. Everest, the world's tallest peak, sits at the heart of the Himalayas. Nestled high up within these mountains are the remote, landlocked kingdoms of Nepal and Bhutan. 

The Hindu Kush are mountains that lie at the west end of the Himalayas. They form a rugged barrier separating Pakistan from Afghanistan to the north. For centuries, the Hindu Kush stood in the way of Central Asian tribes trying to invade India. Bloody battles have been fought over control of major land routes through these mountains, including the Khyber Pass. The mighty Karakoram Mountains rise in the northeastern portion of the chain. They are the home of the world's second highest peak, K2.

SOUTHERN PLATEAUS The collision of tectonic plates that pushed up the Himalayas also created several smaller mountain ranges in central India, including the Vindhya (VIHN•dyuh) Range. To the south lies the Deccan Plateau. This large tableland tilts east, toward the Bay of Bengal, and covers much of southern India. Two mountain ranges, the Western Ghats and the Eastern Ghats, flank the plateau, separating it from the coast. These mountains also block most moist winds and keep rain from reaching the interior. As a result, the Deccan is a largely arid region.


Rivers, Deltas, and Plains

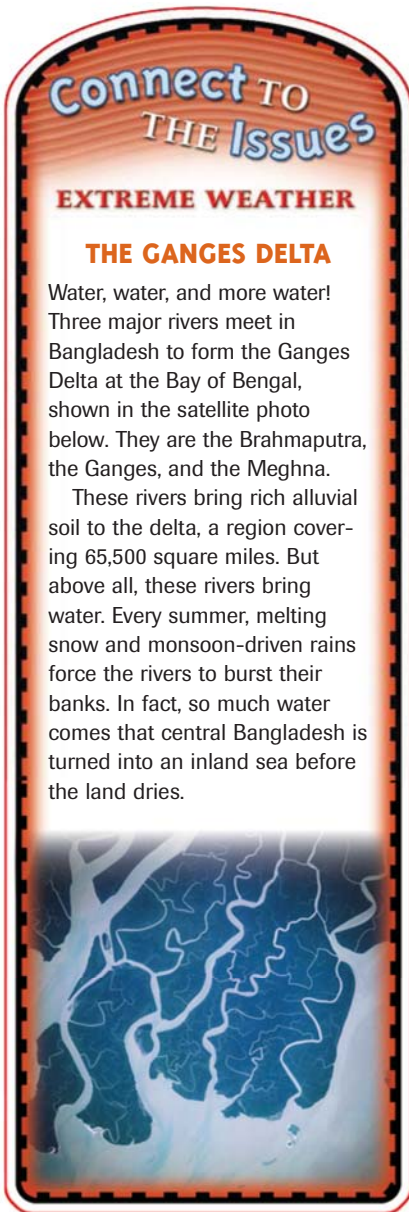
The Northern Indian Plain, or Indo-Gangetic Plain, lies between the Deccan Plateau and the northern mountain ranges. This large lowland region stretches across northern India and into Bangladesh. It is formed by three great river systems: the Indus, the Ganges, and the Brahmaputra.

GREAT RIVERS The three great rivers of South Asia have their origins among the snowcapped peaks of the high



Seeing Patterns

 What role have the Himalayas played in the development of Nepal and Bhutan?




BACKGROUND

The name *Himalayas* is Sanskrit for “abode of snow.”

Himalayas. The Indus flows west and then south through Pakistan to the Arabian Sea. The Ganges drops down from the central Himalayas and flows eastward across northern India. The Brahmaputra winds its way east, then west and south through Bangladesh. The Ganges and Brahmaputra eventually meet to form one huge river delta before entering the Bay of Bengal.

FERTILE PLAINS These rivers play a key role in supporting life in South Asia. Their waters provide crucial irrigation for agricultural lands. They also carry rich soil, called alluvial soil, on their journey down from the mountains. When the rivers overflow their banks, they deposit this soil on **alluvial plains**, lands that are rich farmlands. As a result, the Indo-Gangetic Plain is one of the most fertile farming regions in the world.


The Indo-Gangetic Plain is also the most heavily populated part of South Asia. In fact, the area contains about three-fifths of India's population. Many of the subcontinent's largest cities, including New Delhi and Kolkata in India, and Dakha in Bangladesh, are located there. Population densities at the eastern end of the plain, particularly in the Ganges-Brahmaputra delta, are especially high, as you can see on the map on page 547. To the west, in the area between the Indus and Ganges rivers, the plain becomes drier and requires more irrigation. To the south lies one of the world's most arid regions—the Thar, or Great Indian Desert. 

PLACE Not one of the more than 1,200 small coral islands that make up the Maldives rises more than six feet above the Indian Ocean.

How might global warming affect these islands?



Using the Atlas

 Use the map

on page 543.

Locate the Thar Desert. What two countries share its land?

Offshore Islands

Two island groups are also countries of South Asia—Sri Lanka and the Maldives. Sri Lanka is located in the Indian Ocean just off India's south-eastern tip. The Maldives island group is situated farther off the Indian coast to the southwest.

SRI LANKA: THE SUBCONTINENT'S "TEAR DROP"

Sri Lanka (sree LAHNG•kuh) is a large, tear-shaped island country. It is a lush tropical land of great natural beauty. Dominating the center of the island is a range of high, rugged mountains that reach more than 8,000 feet in elevation. Many small rivers cascade from these mountains to the lowlands below. The northern side of the island consists of low hills and gently rolling farmland. Circling the island is a coastal plain that includes long, palm-fringed beaches.

THE MALDIVES ARCHIPELAGO The Maldives comprise an **archipelago**, or island group, of more than 1,200 small islands. These islands stretch north to south for almost 500 miles off the Indian coast near the equator. The islands (shown at right) are the low-lying tops of submerged volcanoes, surrounded by coral reefs and shallow lagoons. This type of island is called an **atoll**. The total land area of the Maldives is 115 square miles (roughly twice the size of Washington, D.C.). Only about 200 of the islands are inhabited.



Natural Resources of South Asia

INTERACTIVE



SKILLBUILDER: Interpreting Maps

- 1 **LOCATION** How would you describe the distribution of petroleum resources in South Asia?
- 2 **REGION** Why might terrain be a reason no major mineral resources are shown in Nepal?

Natural Resources

The natural beauty of the southern islands is just one of the many physical assets of South Asia. In fact, the subcontinent boasts a wide variety of natural resources that support human life. At the same time, South Asia's rapidly growing population puts great pressure on its land and resources.

WATER AND SOIL South Asia relies heavily on its soil and water resources to provide food through farming and fishing. The great river systems that bring alluvial soil down from the mountains help enrich the land. They also bring the water necessary for crops to grow. Both small- and large-scale irrigation projects divert the water to the farmlands that need it. Many types of fish are also found in South Asian rivers and coastal waters, including mackerel, sardines, carp, and catfish.

South Asian waters also provide a means of transportation and power. Boats travel the rivers and coastlines, carrying goods and people from town to town. Governments also are working to harness hydroelectric energy from the waters. For example, India and Pakistan have a number of hydroelectric and irrigation projects underway.

FORESTS Timber and other forest products are another important resource in South Asia. Rain forests in India produce hardwoods like sal and teak, along with bamboo and the fragrant sandalwood. Highland forests in Bhutan and Nepal have thick stands of pine, fir, and other softwood trees. Deforestation is a severe problem, however. It causes

BACKGROUND
Only one-tenth of India's original forest cover remains uncut.

soil erosion, flooding, landslides, and loss of wildlife habitats. Overcutting has devastated formerly dense forests in India, Bangladesh, and Sri Lanka.

MINERALS Much of South Asia's energy is still generated from mineral resources. For example, India ranks fourth in the world in coal production and has enough petroleum to supply about half its oil needs. India, Pakistan, and Bangladesh also have important natural gas resources. Uranium deposits in India provide fuel for nuclear energy.

South Asia also has large iron-ore deposits, particularly in India's Deccan Plateau. India is one of the world's leading exporters of iron ore, which is also used in that country's large steel industry. Other South Asian minerals include manganese, gypsum, chromium, bauxite, and copper.

India supplies most of the world's mica, a key component in electrical equipment. This is one of the reasons that India has a growing computer industry. Mica is also found in Nepal. India and Sri Lanka both have substantial gemstone deposits. India is traditionally known for its diamonds, while Sri Lanka produces dozens of types of precious and semi-precious stones. The island is most famous for its beautiful sapphires and rubies.

In this section, you read about the landforms and resources of South Asia. In the next section, you will learn about climate and vegetation.



HUMAN-ENVIRONMENT INTERACTION

These Nepalese are harvesting timber from depleted forests in southern Nepal.

What are some ways deforestation might affect the lives of South Asians?



Assessment

1 Places & Terms

Identify and explain where in the region these would be found.

- Himalaya Mountains
- subcontinent
- alluvial plain
- archipelago
- atoll

2 Taking Notes

PLACE Review the notes you took for this section.

Landforms	
Resources	

- What mountain ranges separate the subcontinent from the rest of Asia?
- Why might South Asia have a large steel industry?

3 Main Ideas

- When and how was South Asia formed?
- What are South Asia's three largest rivers, and what is their source?
- How do the island countries that lie off the subcontinent's coast differ from one another?

4 Geographic Thinking

Seeing Patterns How do the Himalayas contribute to South Asia's resource wealth? **Think about:**

- river systems
- agriculture

See Skillbuilder Handbook, page R8.



MAKING COMPARISONS Do research on one of the mountain climbing expeditions to the peak of Mt. Everest. Write a **news article** about the expedition and present it to the class. Use standard sentence structure, spelling, grammar, and punctuation.



Climate and Vegetation

A HUMAN PERSPECTIVE Every April and May, much of South Asia bakes in the heat. People endure temperatures that regularly top 100°F. Dust fills the air, and streams dry up. People walk for miles looking for water. Then—when it seems that no one can survive another day—the clouds roll in. The skies open up, and the rains come. People celebrate when the land turns green.

But their celebration is short-lived, as the downpour continues. Soon, the ground can hold no more water. Rivers overflow their banks. Families are forced from their homes as towns and cities are flooded. Thousands may die before the waters eventually recede, and the land dries out. South Asians see this cycle repeat itself each year.

Climate—Wet and Dry, Hot and Cold

Half of the climate zones that exist on Earth can be found in South Asia. This means that South Asians must adapt to widely varying conditions.

CLIMATE ZONES South Asia has six main climate zones, as you can see on the map on page 557. The highland zone has the coldest climate. This is the area of the Himalayas and other northern mountains, where snow exists year-round. The lower elevations, which include the lush foothills and valleys of Nepal, Bhutan, and northern India, are much warmer. They are in the humid subtropical zone that stretches across South Asia. The Indo-Gangetic Plain also occupies much of this region.

The semiarid zone—a region of high temperatures and light rainfall—is found at the western end of the Plain and in parts of the Deccan Plateau. The desert zone covers much of the lower Indus Valley, in the borderlands of western India and southern Pakistan. The driest part of

Main Ideas

- Climate conditions in South Asia range from frigid cold in the high mountains to intense heat in the deserts.
- Seasonal winds affect both the climate and vegetation of South Asia.

Places & Terms

monsoon

cyclone

CONNECT TO THE ISSUES

EXTREME WEATHER

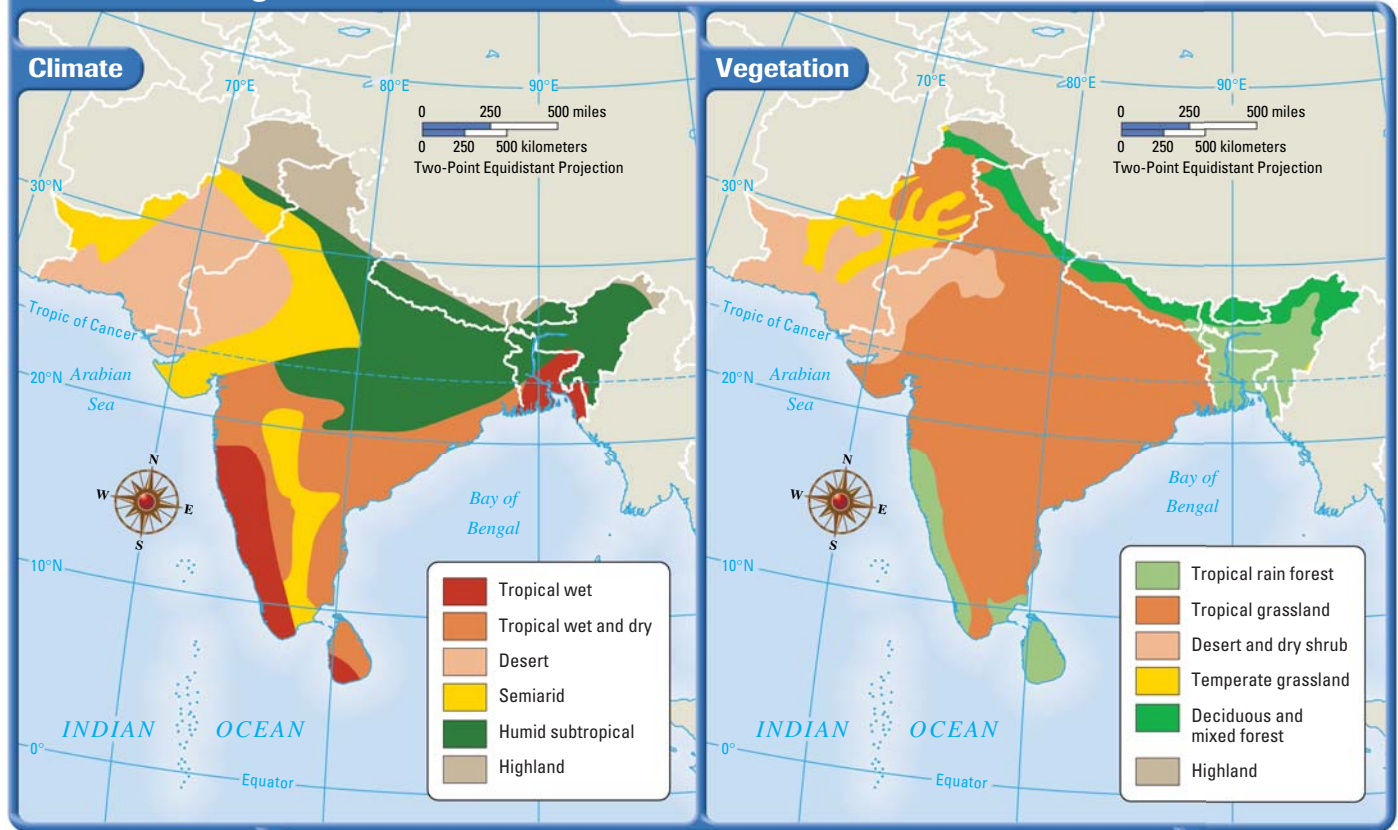
Seasonal droughts and flooding take a heavy toll in lives and property in South Asia each year.

MOVEMENT Camels, who can go days without water, are used to move goods and people across the sands of the Thar Desert, which straddles northwest India and southeast Pakistan.

What does this photo show about the climate and vegetation of the Thar Desert?



Climate and Vegetation of South Asia



SKILLBUILDER: Interpreting Maps

- 1 **LOCATION** Which countries have only one type of vegetation?
- 2 **REGION** Which areas of South Asia receive the most rainfall?

this area, the Thar Desert, gets very little rain—averaging 10 inches a year. The tropical wet zone is found along the western and eastern coasts of India and in Bangladesh. Temperatures are high, and rainfall is heavy. In fact, Cherrapunji in northeastern India holds the world's record for rainfall in a month—366 inches. Southern Sri Lanka also has a tropical wet climate, while the north is tropical wet and dry.

MONSOONS AND CYCLONES Although climate varies in South Asia, the region as a whole is greatly affected by **monsoons**, or seasonal winds. Each year, from October through February, dry winds blow across South Asia from the northeast. From June through September, the winds blow in from the southwest, bringing moist ocean air. Heavy rains fall, especially in the southwestern and Ganges Delta portions of South Asia. The illustration on page 598 shows how the monsoons blow across the region.

This rainfall is crucial to life on the subcontinent. Yet, the monsoons can cause severe hardship for millions, especially those living in the lowlands of India and Bangladesh. The monsoons also are highly unpredictable. Some areas may get too little rain, while others get too much. The monsoons are a sometimes beneficial, sometimes difficult feature of life in South Asia. **A**

The most extreme weather pattern of South Asia is the **cyclone**, a violent storm with fierce winds and heavy rain. Cyclones are most destructive in Bangladesh, a low-lying coastal region where high waves can swamp large parts of the country. A severe cyclone can cause



Seeing Patterns

A How are the monsoons both beneficial and destructive to South Asia?

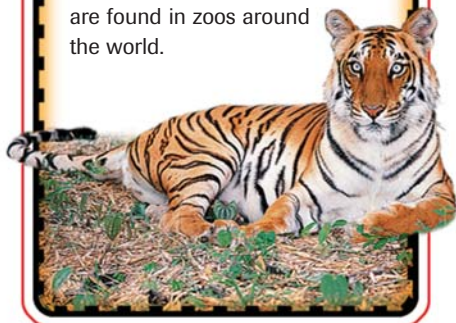
5 THEMES

HUMAN-ENVIRONMENT INTERACTION

Saving the Tigers

The Indian subcontinent's magnificent Bengal Tiger was nearing extinction in the early 1970s. Hunters killed them for sport and skins and as a source of traditional medicine. Only about 1,800 remained.

Today, through the efforts of conservationists and governments, the Bengal Tiger is a protected species. Its numbers are on the rise. An estimated 3,250 to 4,700 Bengal Tigers now roam in protected jungle and grassland areas mainly in India and Bangladesh, but also in parts of Nepal, Bhutan, and Myanmar. Several hundred are found in zoos around the world.



widespread damage and kill thousands of people. In the Disasters! feature on pages 578–579, you will read about a cyclone that killed more than 300,000 in 1970.

Vegetation: Desert to Rain Forest

Plant life in South Asia varies according to climate and altitude. As you can see on the map on page 557, vegetation ranges from desert shrub and temperate grasslands to dense forests in the wettest areas.

VEGETATION ZONES The most forested parts of South Asia lie within the tropical wet zone, particularly the western coast of India and southern Bangladesh. Lush rain forests of teak, ebony, and bamboo are found there, along with mangroves in the delta areas. In the highland zone, which includes northern India, Nepal, and Bhutan, there are forests of pine, fir, and other evergreens. The river valleys and foothills of the humid subtropical zone have forests of sal, oak, chestnut, and various palms. But deforestation is a problem everywhere. For example, less than one-fifth of India's original forests remain. Cutting down forests has caused soil erosion, flooding, climate changes, and lost wildlife habitats.

In the semiarid areas of South Asia, such as the Deccan Plateau and the Pakistan-India border, there is less vegetation. The main plant life is desert shrubs and grasses. The driest areas, like the Thar Desert, have little plant life, and as a result, few people live there. The tropical wet and dry climate of northern Sri Lanka produces both grasses and trees. How South Asians interact with their environment will be discussed in the next section. **B**



Using the Atlas

B Use the atlas on pages 543 and 547. What is the average population density in the Thar Desert?

SECTION 2

Assessment

1 Places & Terms

Explain the importance of each of the following places and terms.

- monsoon
- cyclone

2 Taking Notes

PLACE Review the notes you took for this section.

Climate and Vegetation

- How many different climate zones does South Asia have?
- What percentage of India's original forest remains today?

3 Main Ideas

- In what part of South Asia is there a desert climate?
- What are monsoons, and when do they affect South Asia?
- Where are South Asia's tropical rain forests located?

4 Geographic Thinking

Making Inferences What might be some of the long-term effects of deforestation on life in South Asia? **Think about:**

- soil erosion and flooding
- climate changes
- lost wildlife habitats



GeoActivity

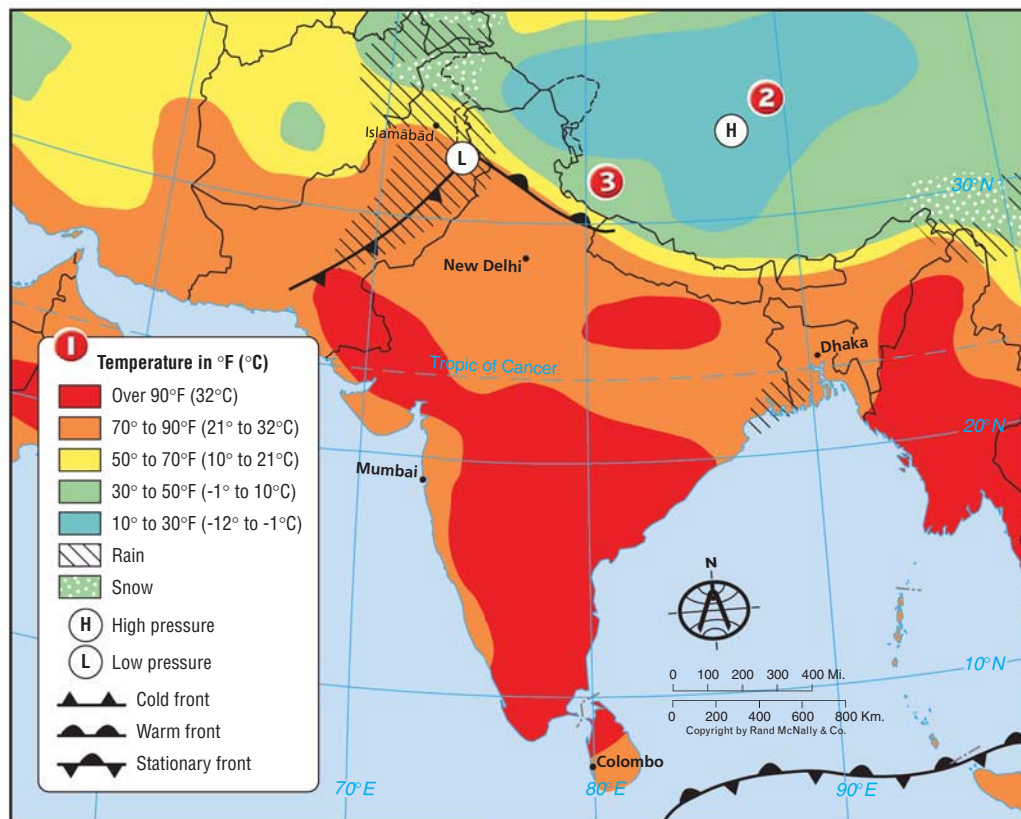
SEEING PATTERNS Do more research on the different trees that grow in South Asia, such as teak, ebony, and bamboo. Create a **sketch map** of the region that shows where these various trees grow.

Reading a Weather Map

Suppose you have decided to take a trip to South Asia and want to know what the weather in the area you are going to visit will be like. To see what the weather is predicted to be for the next several days, you would look at a weather map. Most daily newspapers and news broadcasts show weather maps for a region or a country every day.

THE LANGUAGE OF MAPS A **weather map** shows weather conditions and patterns for a specific area at a point in time. Weather maps show temperatures, precipitation, weather fronts (rapid changes in weather), and air pressure. The weather map below shows weather conditions in South Asia on a typical day during the winter monsoon season—February 21, 2001.

Weather Map of South Asia



- 1 The key shows colors and patterns that are used to indicate temperatures and precipitation. The temperatures are shown in both Fahrenheit and Celsius.
- 2 Letter symbols on the map represent high and low pressure systems. Air pressure is the force of the air pressing down on the earth's surface.
- 3 These symbols show weather fronts. In addition to showing whether a warm front or a cold front is approaching an area, the symbols show in which direction the front is moving.

Map and Graph Skills Assessment

1. Drawing Conclusions

Which South Asian cities are having temperatures over 70°F?

2. Making Comparisons

Which area of South Asia would have the most pleasant weather conditions for a visitor at the time?

3. Making Inferences

Judging from the map, will the weather in northwestern India stay the same or change?



Human–Environment Interaction

A HUMAN PERSPECTIVE Hinduism is the religion of most Indians. During one Hindu religious festival, millions of Indians gather near the city of Allahabad, where the Ganges and Yamuna rivers meet. A temporary tent city goes up, complete with markets, temples, and teahouses. People visit the market stalls and pray at the temples. They also watch plays based on Hindu myths and legends.

Mainly, though, the Hindus wait for the appointed moment when they will wade into the Ganges and wash their sins away in its holy waters. To Hindus, the Ganges River is not only an important water resource, but it is also a sacred river. It is the earthly home of the Hindu goddess Ganga.

Living Along the Ganges

The Ganges is the most well-known of all the South Asian rivers. It flows more than 1,500 miles from its source in a Himalayan glacier to the Bay of Bengal. Along the way, it drains a huge area nearly three times the size of France. This area is home to about 350 million people. Although it is shorter than both the Indus and Brahmaputra rivers, the impact of the Ganges on human life in the region is enormous.

A SACRED RIVER The Ganges is extremely important for the livelihood of Indians. It provides water for drinking, farming, and transportation. Just as important, though, is the spiritual significance of the river. The Ganges is known in India as *Gangamai*, which means “Mother Ganges.” In Bangladesh, where the Ganges joins the Brahmaputra, the river is called the Padma. According to Hindu beliefs, the Ganges is a sacred river that brings life to its people. As you read above, the Hindus worship the river as a goddess, and they believe its waters have healing powers.

Many temples and sacred sites line the banks of the Ganges. In some places, wide stone steps lead down to the water. Pilgrims come from all parts of the world to drink and bathe in its waters. They also come to scatter the ashes of deceased family members on the river.

At Varanasi (shown at right), one of the most sacred sites on the Ganges, thousands of people gather every day. As the sun rises, Hindu pilgrims enter the water for purification and prayer. They float baskets of flowers and burning candles on the water, as bells ring and trumpeters blow on conch shells. It is a daily celebration of their faith in the Ganges and its sacred waters.

Main Ideas

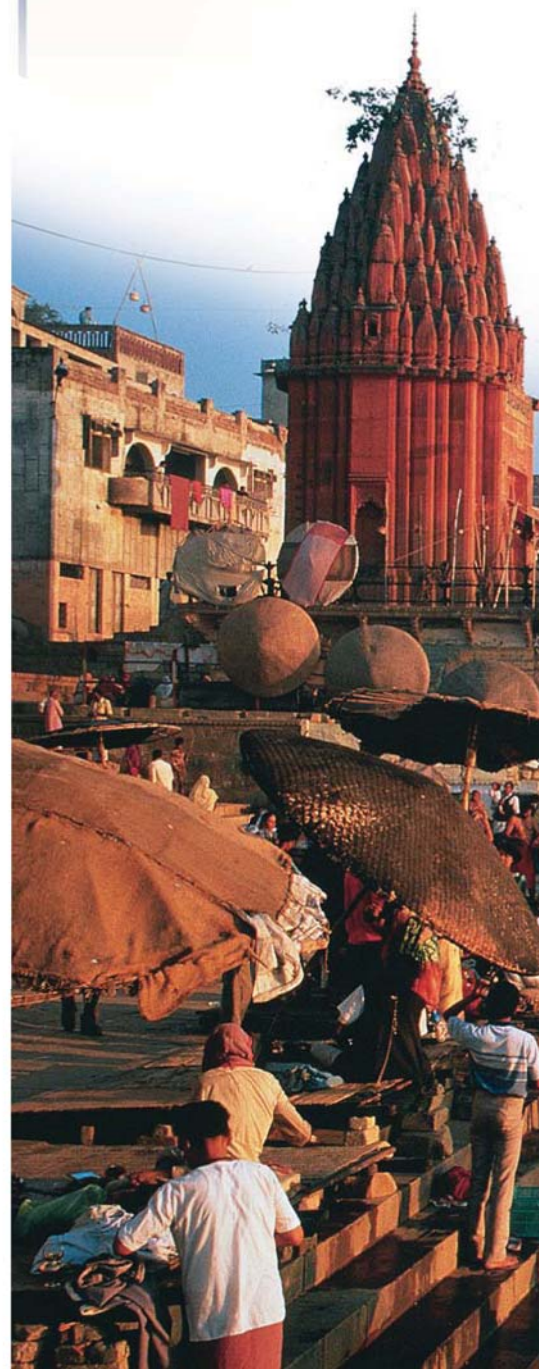
- Rivers play a central role in the lives of South Asians.
- Water pollution and flooding pose great challenges to South Asian countries.

Places & Terms

Hinduism **storm surge**
Ganges River **estuary**

CONNECT TO THE ISSUES

POPULATION The large population of South Asia is in danger of using up the region’s water resources.



A POLLUTED RIVER Unfortunately for the people of India, the Ganges is in trouble. After centuries of intense human use, it has become one of the most polluted rivers in the world. Millions of gallons of raw sewage and industrial waste flow into the river every day. The bodies of dead animals float on the water. Even human corpses are thrown into the river. As a result, the water is poisoned with toxic chemicals and deadly bacteria. Thousands of people who bathe in the river or drink the water become ill with stomach or intestinal diseases. Some develop life-threatening illnesses, such as hepatitis, typhoid, or cholera.

Since 1986, the Indian government has tried to restore the health of the river. Plans have called for a network of sewage treatment plants to clean up the water and for tougher regulations on industrial polluters. So far, however, progress has been slow. Few of the proposed treatment plants are in operation, and factories and cities are still dumping waste into the river.

Pollution in the Ganges remains an enormous problem. It will take a great deal of time, effort, and money to clean up the river. It will also require a change in the way people view the river. According to many Hindu believers, the Ganges is too holy to be harmed by pollution. If there is a problem with the water, they believe that “Mother Ganges” will fix it.

MOVEMENT Each year, millions of Hindu pilgrims come to the city of Varanasi, in northern India, to bathe in the waters of the Ganges—the sacred river of their religion.

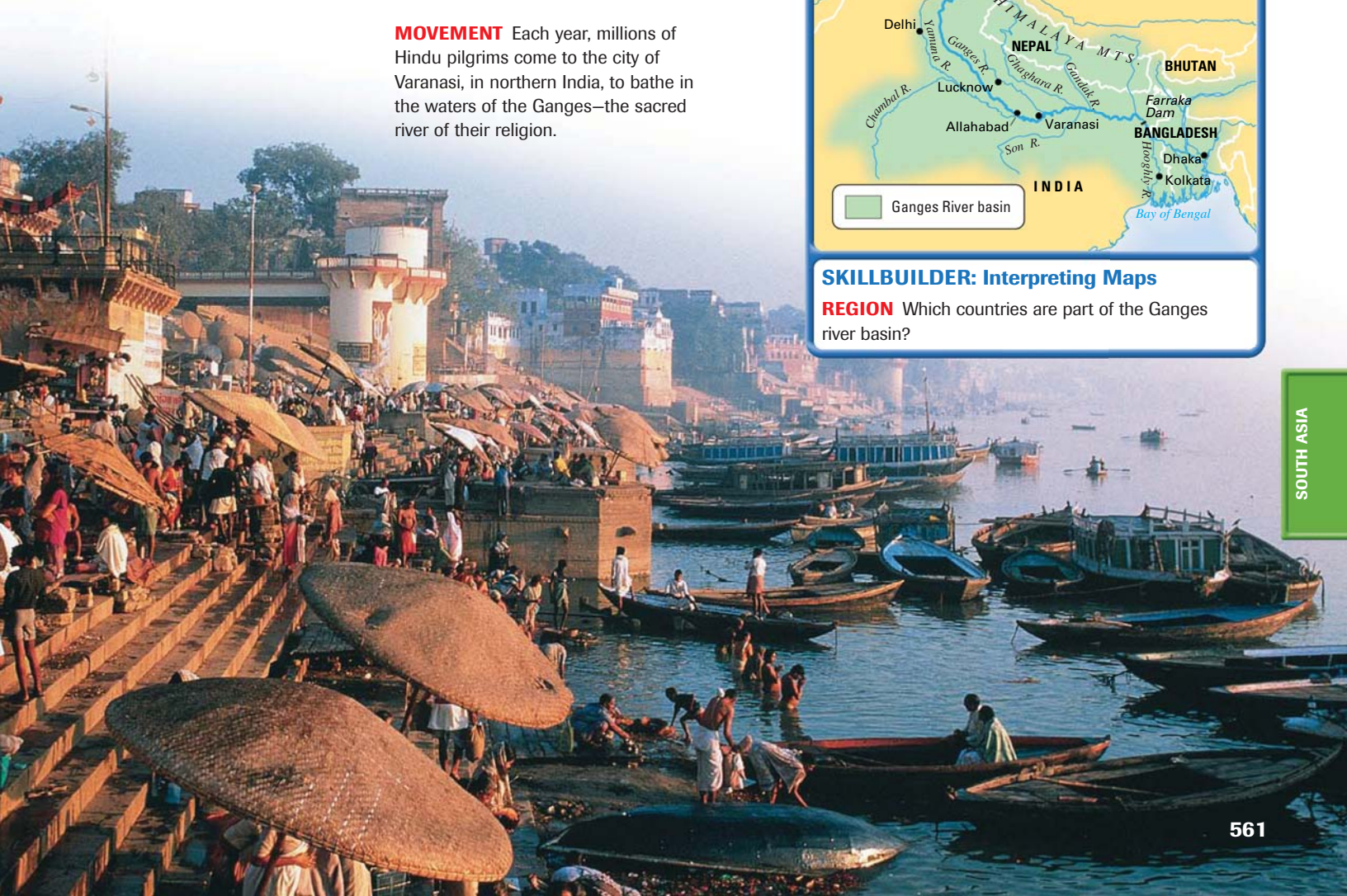
The Ganges River

Length	1,560 miles
Source	Gangotri glacier, western Himalayas, 10,302 feet above sea level
Mouth	Bay of Bengal
Delta Area	65,500 square miles in India and Bangladesh
Name, in Hindi	Gangamai, or Ganga



SKILLBUILDER: Interpreting Maps

REGION Which countries are part of the Ganges river basin?






HUMAN- ENVIRONMENT INTERACTION

Bangladeshi workers carry hundred-pound bags of clay across the Feni River bottom at low tide. The bags were used in the construction of the dam pictured on the next page.

What might be a reason for using people rather than trucks for this job?



Controlling the Feni River

Just as the Ganges is the lifeblood of India, the rivers of Bangladesh are crucial to that country's survival. Many rivers emerge from the Chittagong Hills in the southeast. One of these rivers is the Feni, which flows into the Bay of Bengal just east of the huge delta that makes up most of the southern part of the country. The Feni begins as a small hill stream, but it becomes a wide, slow-moving river by the time it enters the bay. 

A RIVER OVERFLOWS The Feni flows through a low-lying coastal plain that borders the Bay of Bengal before it reaches the sea. This flat, marshy area is subject to flooding during the wet season. At that time, monsoon rains swell the river and may cause it to overflow its banks. Also a problem are the cyclones that sweep across the Bay of Bengal. They bring high waters—called **storm surges**—that swamp low-lying areas. You saw a photo of this area on page 552.


Over the years, storm surges at the mouth of the Feni River have caused tremendous hardship. Sea water surges up the river and onto the coastal flatlands. Villages and fields are flooded, causing great destruction. On smaller streams, villagers sometimes build earthen dikes to block the water and protect their farmlands. But such structures are not effective against the flooding of large rivers.

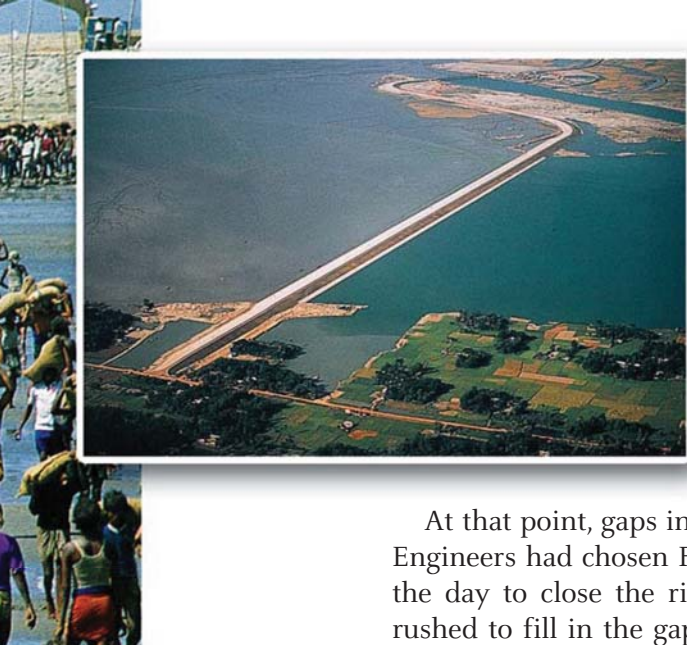
In the 1980s, engineers in Bangladesh proposed building an earthen dam for the Feni. Closing the Feni to build the dam would be very difficult, though. The mouth of the river is nearly a mile wide, posing major problems for dam construction. The cost of building such a dam would also be enormous. A poor country like Bangladesh has limited financial and technological resources.

USING PEOPLE POWER Bangladesh did have one key asset for such a project—abundant human resources. With its large population, the country had plenty of unskilled workers available for construction work. To help plan the job, Bangladesh hired engineers from the Netherlands. As you read in Unit 4, the Dutch have had great experience in flood control.



Using the Atlas

 Use the map on page 543. Find the highest elevated area in Bangladesh—the Chittagong Hills. What is their elevation?



From the beginning in 1984, the project emphasized the use of cheap materials and low-tech procedures. The first step was to lay down heavy mats made of bamboo, and reeds weighted with boulders. This was done to prevent erosion of the river bottom. Workers piled more boulders on top and then covered them with clay-filled bags. After six months' work, they had built a partial closure across the mouth of the Feni River.

At that point, gaps in the wall still allowed water to flow in and out. Engineers had chosen February 28, 1985—the day of lowest tides—as the day to close the river. When the tide went out, 15,000 workers rushed to fill in the gaps with clay bags. In a seven-hour period, they laid down 600,000 bags. When the tide came back, the dam was closed.

COMPLETING THE DAM After that, dump trucks and earthmovers added more clay to raise the dam to a height of 30 feet. Then, workers placed concrete and brick over the sides of the dam and built a road on top. Bangladesh now had the largest **estuary** (an arm of the sea at the lower end of a river) dam in South Asia. But a crucial question remained—would the dam hold against a major storm?

The test came three months later, when a cyclone roared into the Bay of Bengal. A storm surge hit the dam, but the dam held. The lands and villages behind the dam were spared the worst effects of the storm. The success of the Feni River closure offers hope for similar solutions in other low-lying areas of Bangladesh and South Asia. **B**

In this chapter, you read about the physical geography of South Asia. In the next chapter, you will learn about the human geography of the region—its history, government, economy, and culture.

CONNECT TO THE ISSUES

EXTREME WEATHER

B Why might dams such as the one on the Feni River help to prevent the effects of extreme weather?



Assessment

1 Places & Terms

Identify and explain the significance of each in the region.

- Hinduism
- Ganges River
- storm surge
- estuary

2 Taking Notes

PLACE Review the notes you took for this section.



- What do the people of India call the Ganges River?
- Why do pilgrims visit the Ganges?

3 Main Ideas

- What is the spiritual significance of the Ganges for India's Hindus?
- Why are rituals performed in the Ganges dangerous?
- How have Bangladeshis sought to prevent storm surges from flooding coastal lowlands?

4 Geographic Thinking

Making Inferences Why might pilgrims continue to bathe in and drink water from the Ganges River even though it is polluted? **Think about:**

- how much pilgrims know about the river
- the religious importance of the river



EXPLORING LOCAL GEOGRAPHY Learn more about common religious beliefs where you live. Are there places in your community that believers hold to be sacred? Create a **report** that describes your findings.

VISUAL SUMMARY PHYSICAL GEOGRAPHY OF SOUTH ASIA

Landforms

Mountains and Plateaus: Himalayas, Hindu Kush, Karakoram Mountains, Eastern and Western Ghats, and Vindhya Range; Deccan and Karnataka plateaus

Rivers, Deserts, and Plains: Indus, Ganges, and Brahmaputra rivers; Thar Desert; Indo-Gangetic Plain

Islands: Sri Lanka, Maldives Archipelago



Resources

- South Asia counts heavily on its soil and water resources for farming, fishing, transportation, and power.
- Coal, petroleum, uranium, and natural gas are plentiful in South Asia. The region also boasts large deposits of iron ore and other minerals, as well as substantial but dwindling timber resources.



Climate and Vegetation

- South Asia's climate ranges from frigid cold in the mountainous north to intense heat in the desert regions to the south.
- Seasonal winds, called monsoons, have an enormous impact on the region's vegetation.



Human-Environment Interaction

- The people of South Asia have strong economic and spiritual ties to their great rivers, especially the Ganges.
- Even so, the region's unpredictable storms and severe problems with water pollution have complicated these ties.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

- | | |
|-----------------------|-----------------|
| 1. Himalaya Mountains | 6. cyclone |
| 2. subcontinent | 7. Hinduism |
| 3. archipelago | 8. Ganges River |
| 4. atoll | 9. storm surge |
| 5. monsoon | 10. estuary |

B. Answer the questions about vocabulary in complete sentences.

11. What geographic term above can be used to describe the Maldives?
12. What is the religion of most of India's people?
13. Where is the world's tallest mountain peak?
14. Which river is home to the Hindu goddess Gangamai?
15. What is the most extreme weather pattern in South Asia?
16. What is another name for South Asia's landmass?
17. What is the name of the broad seaward end of a river mouth?
18. What is caused by the cyclones that sweep across the Bay of Bengal?
19. What seasonal winds play a large role in South Asia?
20. What island type is the top of a submerged volcano surrounded by coral reefs?

Main Ideas

Landforms and Resources (pp. 551–555)

1. Which mountain ranges resulted from the collision of what is now the Indian subcontinent with Asia?
2. What two tectonic plates were involved in this collision?
3. In which directions do the three major rivers originating in the Himalayas flow?
4. Why is India's supply of mica important?

Climate and Vegetation (pp. 556–559)

5. When are South Asia's monsoon seasons?
6. What are the advantages and disadvantages of the southwest monsoons?
7. Why are the people in Bangladesh vulnerable to cyclones?

Human-Environment Interaction (pp. 560–563)

8. Why is the Ganges River so polluted?
9. Why do Hindu pilgrims bring the ashes of deceased family members to the river?
10. How long did it take the Bangladeshi people to build a dam across the Feni River?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.

Landforms	
Resources	

- Where is the Deccan Plateau?
- What is the most heavily populated plain in South Asia?

2. Geographic Themes

- LOCATION** Which bay is located south of Bangladesh?
- PLACE** Which island's center is dominated by a range of high rugged mountains?

3. Identifying Themes

How can you explain the enormous wall of mountain ranges that separate South Asia from the rest of Asia? Which of the five themes applies to this situation?

4. Making Inferences

Why might the Khyber Pass be considered of crucial military importance?

5. Making Generalizations

How does weather cause suffering in South Asia?

Additional Test Practice,
pp. S1–S37



Geographic Skills: Interpreting Maps

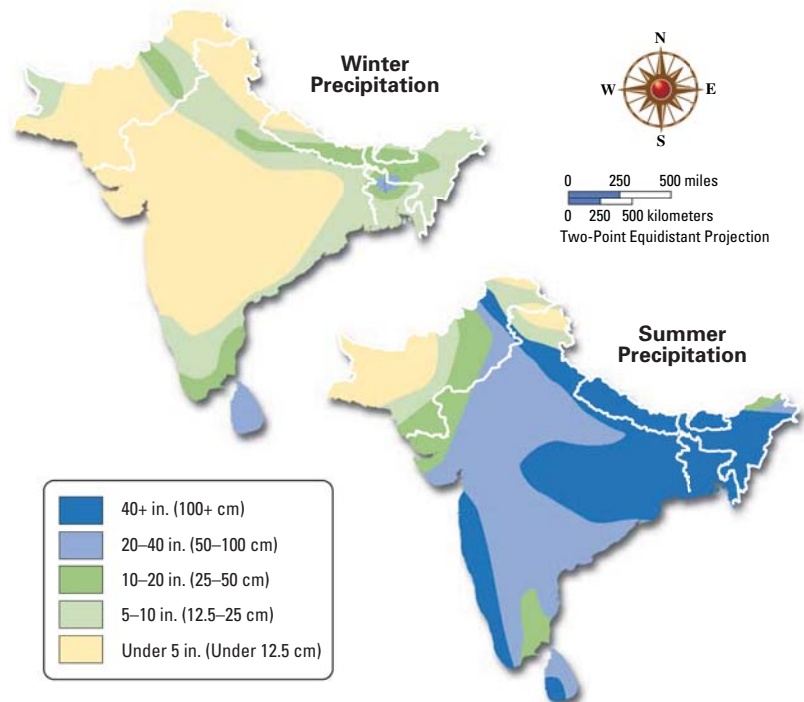
Precipitation in South Asia

Use the maps at right to answer the following questions.

- REGION** In which season does South Asia get most of its precipitation?
- REGION** How much precipitation does central India receive during the winter?
- PLACE** How much rainfall does Bangladesh receive in the summer?



Do more research on precipitation in South Asia. Focus on the drought that struck the region in 2000—what some observers have called the worst drought in 100 years. Use presentation software to share your results.



INTERNET ACTIVITY

Use the links at classzone.com to do research on the different kinds of wildlife that are found in South Asia. Try to identify specific areas in the region where these different animals live.

Creating a Sketch Map Use your research to create a sketch map that shows the locations of different animal habitats. Add pictures and captions to your map. Use the captions to explain why the locations are suited to specific animals.

HUMAN GEOGRAPHY OF SOUTH ASIA

A Region of Contrasts

SECTION 1

India

SECTION 2

Pakistan and
Bangladesh

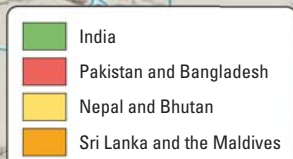
SECTION 3

Nepal and Bhutan

SECTION 4

Sri Lanka and the
Maldives

Four Subregions of South Asia



PAKISTAN

NEPAL

BHUTAN

BANGLADESH

INDIA

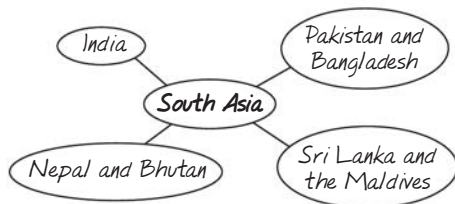
SRI LANKA

MALDIVES

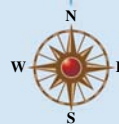
GeoFocus

How have the different
cultures of South Asia
developed?

Taking Notes In your notebook, copy a cluster diagram like the one below. For each subregion of South Asia, take notes about its history, economics, culture, and modern life.



0 250 500 miles
0 250 500 kilometers
Two-Point Equidistant Projection





India

Main Ideas

- India is the largest country in South Asia and has the most developed economy.
- Indian culture is deeply influenced by religion.

Places & Terms

Mughal Empire

raj

nonviolent resistance

land reform

Green Revolution

caste system

CONNECT TO THE ISSUES

POPULATION India's huge and diverse population presents many social, economic, and political challenges.

A HUMAN PERSPECTIVE At midnight on August 14, 1997, India celebrated the 50th anniversary of its independence from Great Britain. Thousands of people flooded the streets of the capital, New Delhi, and waved the orange, white, and green flag of India. Fifty years before, Prime Minister Jawaharlal Nehru had spoken to the nation. "A moment comes," he said, "when we step out from the old to the new, . . . and when the soul of a nation, long suppressed, finds utterance [expression]." Since then, India has emerged as a modern and powerful country. But it has also preserved its links to the past.

Invasions, Empires, and Independence

India is an ancient land. Its culture and history date back more than 4,000 years. For centuries, foreign invaders came to conquer India but were absorbed into Indian life. As a result, Indian culture is a blend of many different customs and traditions.

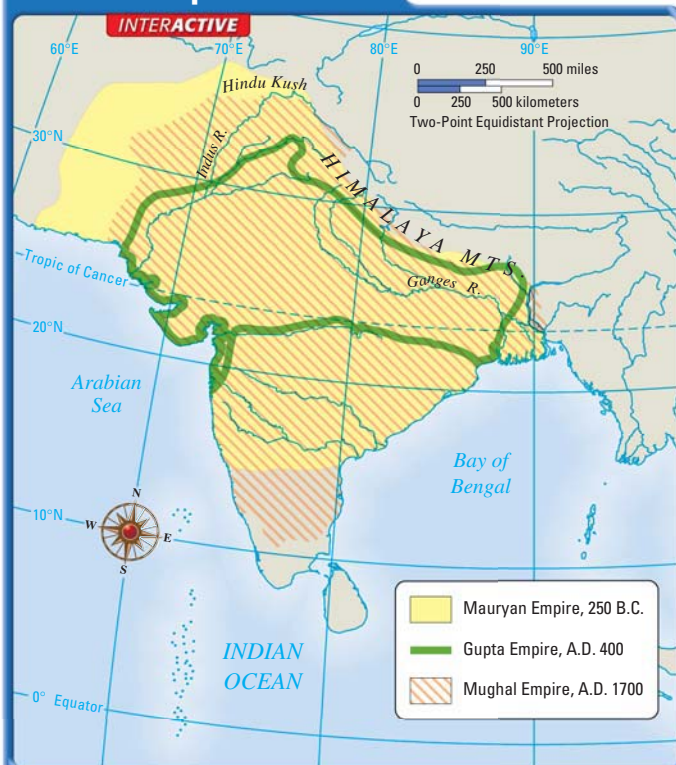
EARLY HISTORY Indian civilization began in the Indus Valley (now in Pakistan) around 2500 B.C. A thousand years later, invaders crossed the mountains of the Hindu Kush and spread across northern India. They were Aryans, a light-skinned people from the plains north of Iran. Aryan culture played a key role in the development of Indian civilization.

The Aryans established small kingdoms on the Ganges Plain. They pushed darker-skinned, native Indians, called Dravidians, toward the south. Later, Persian and Greek invaders occupied the Indus Valley. But they did not conquer the Aryan kingdoms of the Ganges.

Two great Indian empires eventually emerged on the lower Ganges. Beginning in 321 B.C., the Mauryan Empire united most of India. The great Mauryan leader Asoka helped spread Buddhism throughout Asia. Several centuries later, the Gupta Empire came to power. It ruled over northern India during an age of peace and prosperity.

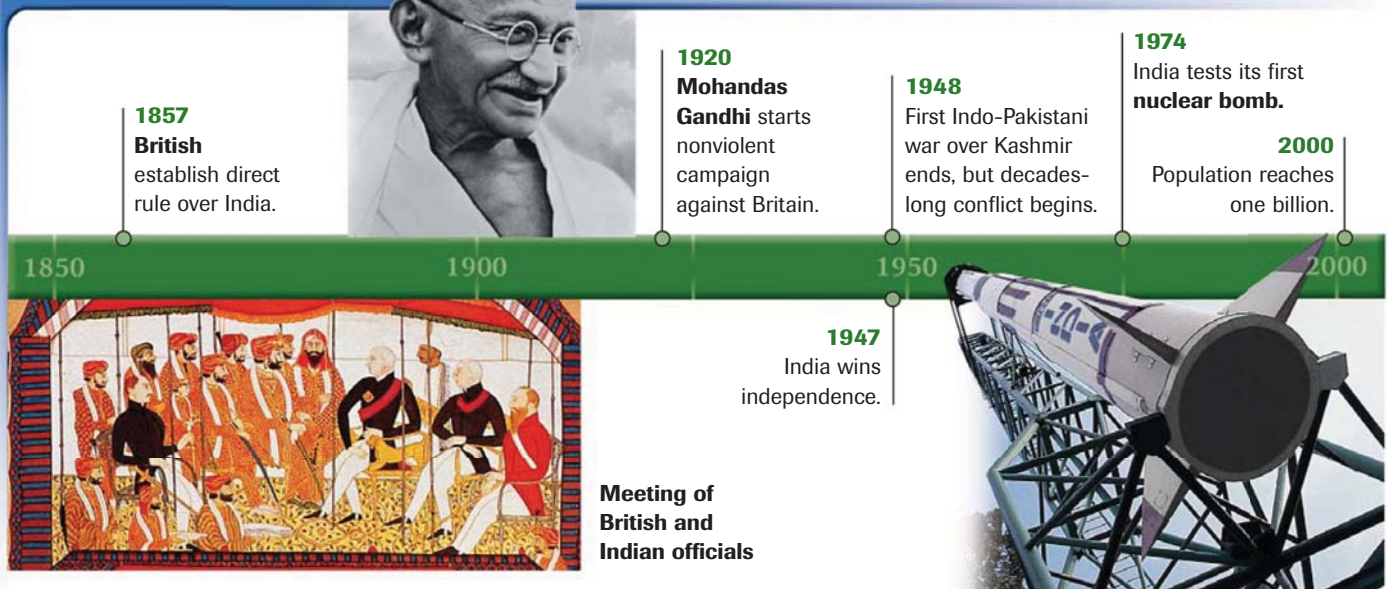
New waves of invaders from Central Asia and, later, Southwest Asia began entering India in the A.D. fifth century. Muslims conquered the Indus

Ancient Empires of India



SKILLBUILDER: Interpreting Maps

- 1 **LOCATION** What is the farthest north-south and east-west extent of the Gupta Empire?
- 2 **MOVEMENT** Which empire moved farthest south?



Valley and then occupied the Ganges Plain. By the early 1500s, they had established the **Mughal Empire** throughout much of India. Muslim rule brought new customs that sometimes conflicted with those of the native Hindus.

EUROPEANS ARRIVE Also in the 1500s, European traders came to India, looking for spices, cloth, and other goods not available in Europe. They soon established trade relations with India's rulers. French, Dutch, and Portuguese traders set up trading colonies in India—but it was the British who finally won out.

Through its trading arm, the British East India Company, Britain gained control over India's trade with Europe in 1757. In 1857, the British government put down a revolt and established direct rule over India. The period of direct British control, called the **raj**, lasted for nearly 90 years.

British rule brought some benefits to India, but most Indians did not like colonialism. The great Indian leader Mohandas Gandhi began an opposition movement based on **nonviolent resistance**—a protest movement that does not use violence to achieve its goals. Eventually, Britain gave in and granted India its freedom. At midnight on August 14, 1947, India became independent.

Independence also brought the division of India. The Muslims of West and East Pakistan (now Pakistan and Bangladesh, respectively) chose to separate from India, which was strongly Hindu, and form a separate country. This division caused violence to break out between Hindus and Muslims. Mass migrations across the new borders caused great hardship and suffering. **A**

Governing the World's Largest Democracy

India's first prime minister, Jawaharlal Nehru, was an associate of Gandhi. Under Nehru's leadership, India adopted a constitution and became a democratic republic in 1950. With a population of more than one billion, India is presently the world's largest democracy.



Using the Atlas

- A** Use the atlas on page 545. Locate India, West Pakistan (now Pakistan), and East Pakistan (now Bangladesh). Which country does not share a border with China?

Indian democracy reflects elements of both the American and the British systems. Like the United States, India is a federation of states held together by a strong central government. However, like Britain, it is a parliamentary democracy. The leader of the majority party in parliament becomes prime minister and head of the government.

Many different ethnic, cultural, and religious factors influence Indian politics. One major factor is relations between Hindus and Muslims. India is strongly Hindu, but its Muslim minority numbers around 150 million people. So, Indian leaders must take Muslim interests into account. Two other minorities, Sikhs and Tamils, also play a key role in Indian politics. In 1984, Sikhs who were angered by Indian policies assassinated Prime Minister Indira Gandhi, the daughter of Nehru. Seven years later, Tamil extremists assassinated Indira Gandhi's son, Prime Minister Rajiv Gandhi. Despite such violence, India manages to resolve most of its political conflicts peacefully. In a challenging post-colonial world, Indian democracy has survived.

BACKGROUND

Mohandas Gandhi, the founder of modern India, was also assassinated. A Hindu extremist who opposed Gandhi's attempts to resolve the Hindu-Muslim conflict killed him.

Economic Challenges

Another challenge for India is to promote economic growth and raise standards of living. The government has adopted a variety of policies to achieve these goals. But progress has been slow. India has one of the world's largest economies, but per capita income remains low. About half of India's people live in poverty.

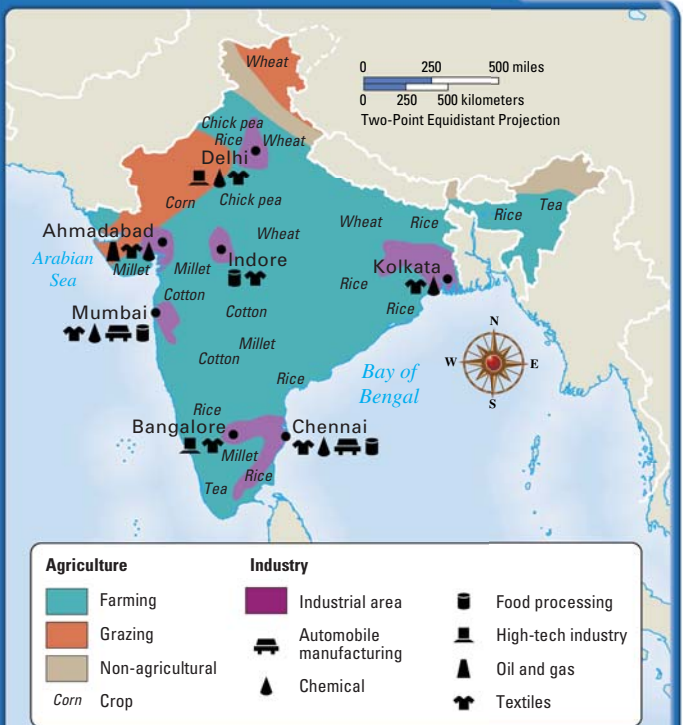
DEPENDENCE ON FARMING

About two-thirds of India's people rely on farming for their livelihood. The majority of farms, however, are very small, and crop yields are low. Most farm families struggle to survive on what they can grow for themselves.

One solution being considered for this problem is **land reform**—a more balanced distribution of land among farmers than now exists. In the late 1990s, 5 percent of India's farm families owned nearly 25 percent of India's farmland. Because the large landowners have great political influence, land-reform proposals have never made much progress. **B**

One change has made a major difference, though. After a series of famines in the 1960s, agricultural scientists introduced new

Agriculture and Industry of India



SKILLBUILDER: Interpreting Maps

- 1 REGION** In which regions of India is grazing the principal agricultural activity?
- 2 REGION** Which industry is found in every major industrial area of India?



Seeing Patterns

B What changes might come about through land reform?

Geography TODAY


The Green Revolution

India could not feed its vast population in the 1950s. It needed foreign aid. Today, with a population of more than one billion, India is self-sufficient. The turnaround resulted from what was called the Green Revolution.

Starting in the 1950s, scientists set out to change the way Indians farmed. They proposed expanded use of machinery and increased irrigation, as well as trying chemical fertilizers and new types of high-yield crops. Today, India even grows a surplus of such crops as wheat and rice.



farming techniques and higher-yielding grain varieties to improve production. This program, later called the **Green Revolution**, increased crop yields. The increases were especially dramatic for wheat, but rice production also expanded. Still, many peasant farmers lack the land and money to take advantage of these technological improvements.

GROWING INDUSTRY Although agriculture is the main economic activity in India, industry is also an important element. Cotton textiles have long been a major product of India. Beginning in the late 1940s, however, other industries began to develop. As the map on page 569 shows, India is now a major producer of iron and steel, chemicals, machinery, and food products. The main industrial regions are centered around Kolkata (Calcutta) in the east, Mumbai (Bombay) and Ahmadabad in the west, Chennai (Madras) in the south, and Delhi in the north. 

The western industrial zone has led the way in the modernization of Indian industry. Today, Mumbai is India's most prosperous city and leading commercial center. Its industries include metals, chemicals, and electronics. Other areas are now following Mumbai's lead. The southern city of Bangalore has become India's high-tech center. It is home to hundreds of computer software companies that are taking advantage of India's low wages and highly skilled workers. To some observers, Bangalore represents the future of the modern Indian economy.

Life in Modern India

While India's economy is modernizing, many Indians still live and work in traditional ways. This blend of old and new is typical of modern life in India.


DAILY LIFE Marriage and family remain at the center of Indian life. Most Indians follow the custom of arranged marriages—in which marriage partners are chosen by their families. But more affluent urban young people increasingly choose their own spouses. Indian families are large. Often many relatives from several generations live under one roof. Marriages are usually male-dominated, and divorce is rare.

Most Indians eat a largely vegetarian diet based on rice, legumes, and flatbreads called *chapati* or *roti*. Some Indians eat meat, fish, and chicken, often in spicy dishes called curry. But meat consumption is limited by both Muslim and Hindu religious practices.

Indians enjoy sports, music, and movies. Some of the country's most popular sports are soccer, field hockey, and cricket—a sport similar to baseball adopted from the British. Classical Indian music, featuring traditional instruments such as the sitar and the tabla, still has a large audience. But modern pop music is finding favor with India's youth. They also flock to movie theaters, where foreign films compete with local productions. The Indian film industry is based in Mumbai.



Making Comparisons

 How has economic development changed India?

These young women from the state of Rajasthan dress in traditional clothing to attend a fair. Festivals of all kinds are part of life for people of all ages in India. The traditional clothing worn by females in India includes embroidered skirts, head shawls, and lots of jewelry. In many places, however, Western-style clothing has replaced the traditional, especially for young people. Even though changes are taking place, females in India are treated differently from males both inside and outside the home. Females, for example, have more family responsibilities and less access to higher education and professional jobs.

If you lived in India, you would pass these milestones:

- You would receive some schooling, as Indian law provides free education from age 6 through age 14. In some areas, though, you could be working even before the age of 10.
- In school, you would study history, geography, science, math, and moral education.
- You might be married at age 16 if you were a female living in a rural area and at age 17 if you were a female in an urban area.
- You could enter the military at age 17 if you were a male.
- You could vote at age 18.



EDUCATION Most Indians still work on farms or in small craft industries. As the economy changes, though, more people are finding work in factories and offices. Education is a key factor in this change. In towns and cities, most middle-class children attend school. Literacy—the ability to read and write—has risen steadily since the 1950s. In city slums and rural areas, however, school attendance is irregular and literacy rates are low. The government has placed a high priority on improving public education to better prepare its citizens for the future.

Indian Culture

The culture of India is a rich blend of the different linguistic, ethnic, and religious groups.

MANY LANGUAGES The Indian constitution recognizes 18 major language groups, but more than 1,000 languages and dialects are spoken in India. Hindi is the official language. English, too, is widely spoken as a common language, especially by those working in government and business. Southern India is a distinct subregion, dating back to the Aryan conquest of northern India. The language and ethnicity of this region is Dravidian rather than Indo-European. Southern India has four major languages: Telugu, Tamil, Kannada, and Malayalam.

HINDUISM India is a land of great variety, but the dominant force in the lives of most Indians is Hinduism. Hinduism is a complex religion with roots in Aryan culture. Hindus, who make up around 80 percent of the population, believe in many gods. They also believe in reincarnation—the rebirth of souls after death. The moral consequences of a person's actions, known as karma, help determine how a person is reincarnated.

BACKGROUND

Hinduism is not based on the teachings of one person or deity like many other religions. It has been shaped by many ethnic, religious, and cultural groups.



REGION Shiva is one of the major gods of Hinduism. As in this 18th-century painting, Shiva is often represented in the character of a many-headed, many-armed destroyer or restorer.

The **caste system** was the Aryan system of social classes. Today, it remains one of the cornerstones of Hinduism. Four basic castes made up the original system: the Brahmins (priests and scholars), the Kshatriyas (rulers and warriors), the Vaisyas (farmers and merchants), and the Sudras (artisans and laborers).

Over time, these castes were further divided into smaller groupings. Outside the system altogether were the *dalits*, or untouchables, who had the lowest status in Indian society. (This class was officially eliminated in the Indian constitution.)

According to Hindu belief, each person is born into a caste and has a certain moral duty, known as dharma, that is specific to that caste. A person can move into a different caste only through reincarnation. While the system brought social order, it also caused discrimination and limited people's ability to improve their lot in life.

OTHER RELIGIONS Other faiths also play a key role in Indian life. These include Jainism, Christianity, Sikhism, and Buddhism—which originated in northern India. Islam also exerts a strong cultural influence in certain parts of the country. But millions of Muslims left the country after India won independence in 1947. They chose to move to the new Muslim states founded in the northwestern and northeastern parts of the subcontinent. You will read about those states—now called Pakistan and Bangladesh—in the next section.

SECTION I Assessment

1 Places & Terms

Identify these terms and explain their importance in the region.

- Mughal Empire
- raj
- nonviolent resistance
- land reform
- Green Revolution
- caste system

2 Taking Notes

PLACE Review the notes you took for this section.



- Before Europeans arrived, which groups of people contributed to India's history?
- What are some of the major influences on Indian politics today?

3 Main Ideas

- What happened after the Europeans arrived in India?
- What is the traditional Indian custom regarding marriage?
- What are the central beliefs of the Hindu religion?

4 Geographic Thinking

Making Inferences What might be some of the problems caused by the Hindu caste system? **Think about:**

- being born into a caste
- being able to move into a different caste only through reincarnation



GeoActivity

SEEING PATTERNS Review the information about the arrival of Europeans in India on page 568. Then use the Internet or encyclopedias to learn more about British policies and actions during their rule. Create a **political cartoon** that illustrates British policies, actions, or attitudes during that time.



Pakistan and Bangladesh

A HUMAN PERSPECTIVE Some workers in the port of Chittagong, Bangladesh, have an unusual job. They are ship breakers. When ocean-going ships reach the end of their useful life, they take their last voyage to Chittagong. There, ship breakers wait on the beach with sledgehammers, crowbars, torches, and wrenches. They attack each ship, tearing it apart piece by piece. Within weeks, they can dismantle a ship. Then, they sell its scrap metal for recycling purposes. The job doesn't pay very well, but it is necessary work for the shipping industry, the workers, and the Bangladeshi economy.

New Countries, Ancient Lands

Like India, Pakistan and Bangladesh are young countries with an ancient history and with rapidly growing populations. They, too, are striving to make their way in the modern world.

EARLY HISTORY The largest of the world's first civilizations arose in what is now Pakistan. The **Indus Valley civilization** began around 2500 B.C. It featured well-planned cities like Harappa and Mohenjo-Daro, which had brick buildings (shown below) and sophisticated sanitation systems. The map on page 544 depicts the extent of the civilization at the height of its power. It fell around 1500 B.C., and the Aryans invaded soon after. Later on, the Mauryan, Gupta, and Mughal empires ruled the territory that included modern Pakistan and Bangladesh. The British were the next to take control of the region.

Main Ideas

- Pakistan and Bangladesh are Muslim countries formed as a result of the partition of British India.
- Both Pakistan and Bangladesh have large populations and face great economic challenges.

Places & Terms

Indus Valley civilization

partition

Kashmir

microcredit

entrepreneur

Ramadan

CONNECT TO THE ISSUES

EXTREME WEATHER

Bangladesh is severely affected by seasonal monsoons and cyclones.

PLACE The ruins of Mohenjo-Daro, one of the great cities of the ancient Indus Valley civilization, lie on the Indus River in south-central Pakistan.



The Indian Subcontinent

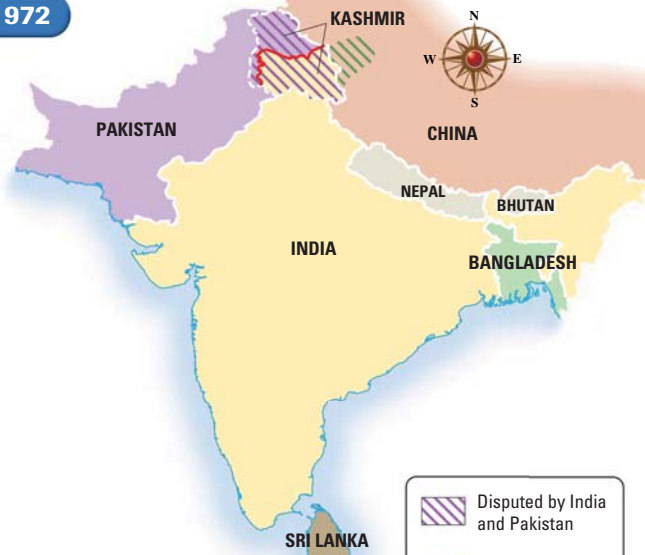
1947



0 250 500 miles
0 250 500 kilometers
Two-Point Equidistant Projection

Disputed by India and Pakistan

1972



0 250 500 miles
0 250 500 kilometers
Two-Point Equidistant Projection

Disputed by India and Pakistan
Disputed by India and China
Cease-fire line

SKILLBUILDER: Interpreting Maps

- 1 **PLACE** What had happened to the territory of Kashmir by 1972?
- 2 **REGION** What other changes had taken place in South Asia from 1947 to 1972?

PARTITION AND WAR The end of British rule in 1947 brought the **partition**, or division, of British India. Two new countries were created—India (predominantly Hindu) and mainly Muslim Pakistan (separated into West Pakistan and East Pakistan). Partition led to much violence between Muslims and Hindus. About one million people died in the conflict. Another 10 million fled across national borders. Muslims in India moved to Pakistan, while Hindus in Pakistan crossed into India.

West Pakistan and East Pakistan shared a religious bond, but ethnic differences and their 1,100-mile separation eventually drove them apart. The people of East Pakistan began to call for their own state. But the government in West Pakistan opposed such a move. Civil war broke out in 1971. That year, with help from India, East Pakistan won its independence as Bangladesh.

MILITARY RULE Both Pakistan and Bangladesh have had political struggles since independence. Short periods of elected government have alternated with long periods of military rule. Political corruption has plagued both countries. Pakistan also has fought several destructive wars with India over the territory of **Kashmir**. These wars are discussed in the Case Study in Chapter 26. In the 1990s, both Bangladesh and Pakistan had women prime ministers, a rarity in the Muslim world.

BACKGROUND

Bangladesh means “land of the Bangla (or Bengal)-speaking people.”

Struggling Economies

Pakistan and Bangladesh have large, rapidly growing populations. In fact, Bangladesh is the eighth most populous country in the world. Both

have economies that depend primarily on agriculture. As in India, per capita incomes are low, and much of the population lives in poverty. Bangladesh is one of the poorest countries in the world.

SUBSISTENCE FARMING Most farmers in Pakistan and Bangladesh work small plots of land and struggle to grow enough crops to feed their families. The government has tried to help modernize farming methods, but many farmers continue to follow less productive traditional ways. Climate also hinders crop yields. Large areas of Pakistan are arid, while Bangladesh is severely affected by seasonal monsoons and cyclones.

The most productive farming areas of Pakistan are the irrigated portions of the Indus Valley. Here, farmers grow enough cotton and rice to allow for export. The farmers also produce substantial amounts of wheat for domestic consumption. The moist delta lands of Bangladesh are ideal for the cultivation of rice, the country's principal food crop. The main export crop is jute (a plant used in the production of rope, carpets, and industrial-quality sacks). Fishing, mainly for freshwater fish, is also vital to the economy of Bangladesh.

SMALL INDUSTRY Neither Pakistan nor Bangladesh is highly industrialized. Most factories are relatively small and lack the capital, resources, and markets required for expansion. Even so, both countries are trying to increase their industrial base. They have growing textile industries that provide an important source of revenue and employment. Both countries export cotton garments, and Pakistan also exports wool carpets and leather goods. **A**

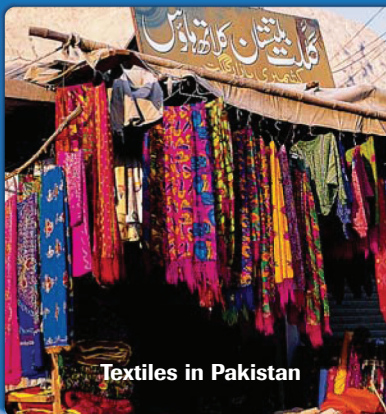
An important economic development has been the introduction of **microcredit**. This policy makes small loans available to poor **entrepreneurs**, people who start and build a business. Businesses that are too small to get loans from banks can often join forces to apply for these microloans. They then accept joint responsibility for repaying the loan. This program, begun in Bangladesh, has helped small businesses grow in South Asia and has raised living standards for many producers, especially women.



Making Comparisons

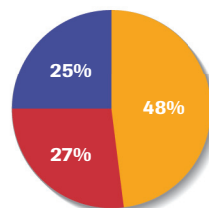
A How do the economies of Pakistan and Bangladesh compare with each other?

Economic Activity in Pakistan and Bangladesh

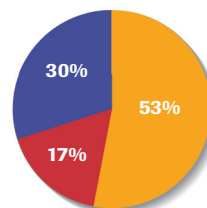


Textiles in Pakistan

Pakistan*



Bangladesh**



■ Agriculture ■ Industry ■ Services

*1999 Estimate, **1998 Estimate
SOURCE: World Fact Book 2000

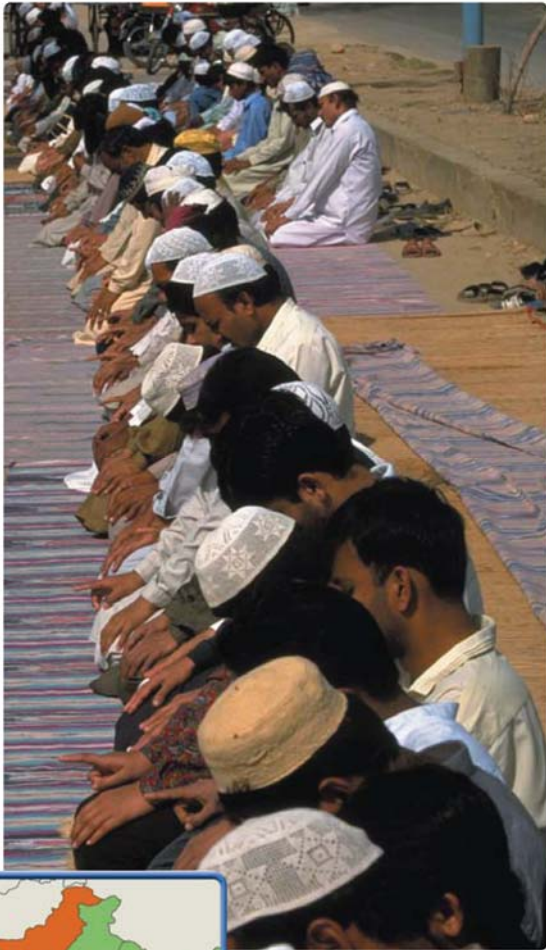
Fishing in Bangladesh



SOUTH ASIA

SKILLBUILDER: Interpreting Graphs

- 1 MAKING COMPARISONS** Which of the two countries is more industrialized?
- 2 ANALYZING DATA** In both Pakistan and Bangladesh, which economic sector employs the most people?



REGION Most Pakistanis are Sunni Muslims. Here, men attend a Muslim prayer service in a mosque in Karachi.

One Religion, Many Peoples

Most of the people of Pakistan and Bangladesh are Muslims. In both countries, Islam is an important unifying force. At the same time, ethnic differences promote cultural diversity, particularly in Pakistan.

ISLAMIC CULTURE Islam has long played an important role in Pakistan and Bangladesh. Both lands were key parts of the Muslim Mughal Empire that ruled the Indian subcontinent for centuries, and their cultures bear the stamp of Islam. The faithful observe Islamic customs. These include daily prayer and participation in **Ramadan**, a month-long period of fasting from sunrise to sunset. Mosques in both countries are often large and impressive structures.

The two countries differ somewhat in their Islamic practices, however. In general, Pakistan is stricter in imposing Islamic law on its citizens. For example, many Pakistanis follow the custom of *purdah*, the seclusion of women. This custom prevents women from having contact with men who are not relatives. When women appear in public, they must wear veils. In Bangladesh, *purdah* is much less common and religious practices are less strict.

ETHNIC DIVERSITY Pakistan is also more ethnically diverse than Bangladesh. Pakistan has five main ethnic groups—Punjabis, Sindhis, Pathans, Muhajirs, and Balochs. Each group has its own language. The Punjabis make up more than half of the population. Each group has its own regional origins within the country except for the Muhajirs, who migrated from India as a result of the partition in 1947. To avoid favoring one region or group over another, the government chose Urdu—the language of the Muhajirs—as the national language. Today, most Pakistanis understand Urdu, even though they may use another language as their primary language.

In contrast, the people of Bangladesh are mainly Bengalis. Bengal is the historic region that includes Bangladesh (once known as East Bengal) and the Indian state of West Bengal. Bengalis speak a language based on Sanskrit, the ancient Indo-Aryan language. Bangladesh also has a small population of Urdu-speaking Muslims and various non-Muslim tribal groups. About 10 percent of the population are Hindus.

BACKGROUND Punjabi is the principal spoken language of Pakistan because the majority of Pakistanis are Punjabis. Arabic is a secondary language for Muslim Pakistanis.

Modern Life and Culture

As in India, life in Pakistan and Bangladesh revolves around the family. Arranged marriages are common, and families tend to be large. Most people live in small villages, in simple homes made of such materials as sun-baked mud, bamboo, or wood. The large cities are busy places,

crowded with traffic and pedestrians. People in both countries enjoy sports such as soccer and cricket, and also enjoy going to see movies.

A LOVE OF POETRY Poetry is a special interest in both Pakistan and Bangladesh, where the tradition of oral literature is strong. Many Pakistanis memorize long poems and can recite them by heart. Poets are popular figures, and poetry readings—called *mushairas*—can draw thousands of people, much like a rock concert does in some countries.

The greatest literary figure in Bangladesh is the poet Rabindranath Tagore, who won the Nobel Prize for Literature in 1913. Although Tagore was born in Calcutta (now Kolkata), India, he wrote about the Ganges and his Bengal homeland. Bangladesh adopted his song, “My Golden Bengal,” as its national anthem.

MUSIC AND DANCE Music and dance are also important forms of expression in Bangladesh and Pakistan. Both countries share music traditions similar to those of India. Folk music of various types is popular in cities and in rural areas. *Qawwali*—a form of devotional singing performed by Muslims known as Sufis—is famous not only in South Asia but also in parts of Europe and the United States. Bangladesh also has a long tradition of folk dances, in which elaborately costumed dancers act out Bengali myths, legends, and stories. **B**

You have been reading about Pakistan and Bangladesh, India’s western and eastern neighbors. Next, you will learn about India’s northern neighbors, Nepal and Bhutan.

Connect TO THE Issues

POPULATION

Millions of Bangladeshis

Bangladesh is the eighth most populous country in the world. About 130 million people live there. This population, half that of the United States, lives on a land area smaller than Wisconsin. Almost 40 percent of the people are under 15—and the population continues to grow.

The population explosion has brought many problems, including malnutrition and disease. Bangladesh’s neighbors—India (one billion people) and Pakistan (about 150 million)—also have rapidly expanding populations.



Seeing Patterns

B What roles do music and dance play in the lives of the people of Pakistan and Bangladesh?



Assessment

1 Places & Terms

Identify each of the following places and terms.

- Indus Valley civilization
- partition
- Kashmir
- microcredit
- entrepreneur
- Ramadan

2 Taking Notes

PLACE Review the notes you took for this section.



- How were the countries of Pakistan and Bangladesh formed?
- What role does farming play in the economies of Pakistan and Bangladesh?

3 Main Ideas

- What have been some of the problems for Pakistan and Bangladesh since they were formed?
- What role does Islam play in Pakistan and Bangladesh?
- How would you describe Pakistan’s ethnic makeup?

4 Geographic Thinking

Making Comparisons How do Pakistan and Bangladesh differ in their Islamic practices? **Think about:**

- the treatment of women
- how much of Pakistan follows strict Islamic law



RESEARCH LINKS
CLASSZONE.COM

GeoActivities

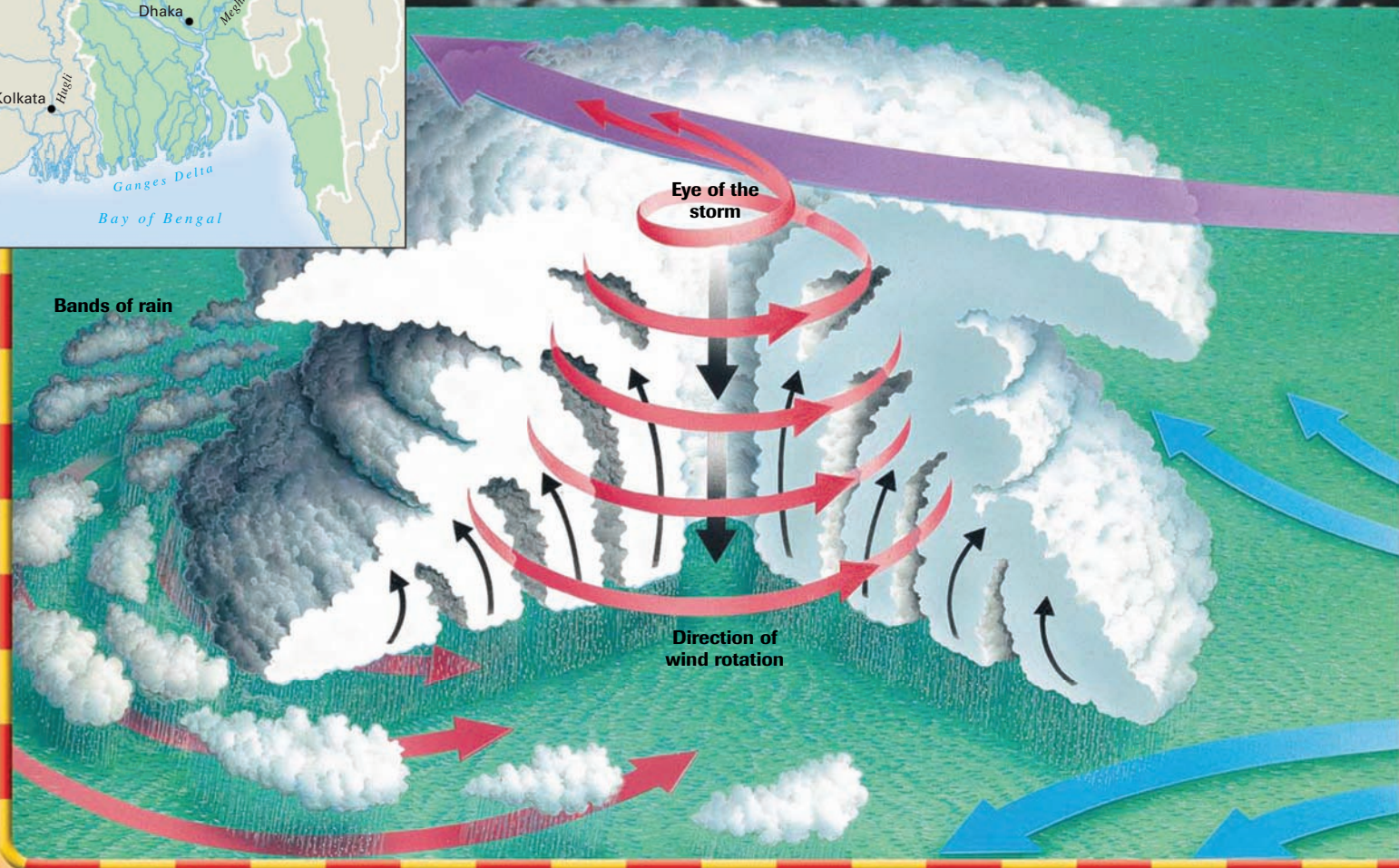
MAKING COMPARISONS Review the information about Islam on page 576. Then use the Internet or an encyclopedia to compare Islam in Pakistan or Bangladesh with a Muslim country in either Africa or Southwest Asia. Create a **chart** comparing the two countries using such topics as treatment of women, eating practices, and how strictly a country enforces Islamic law.

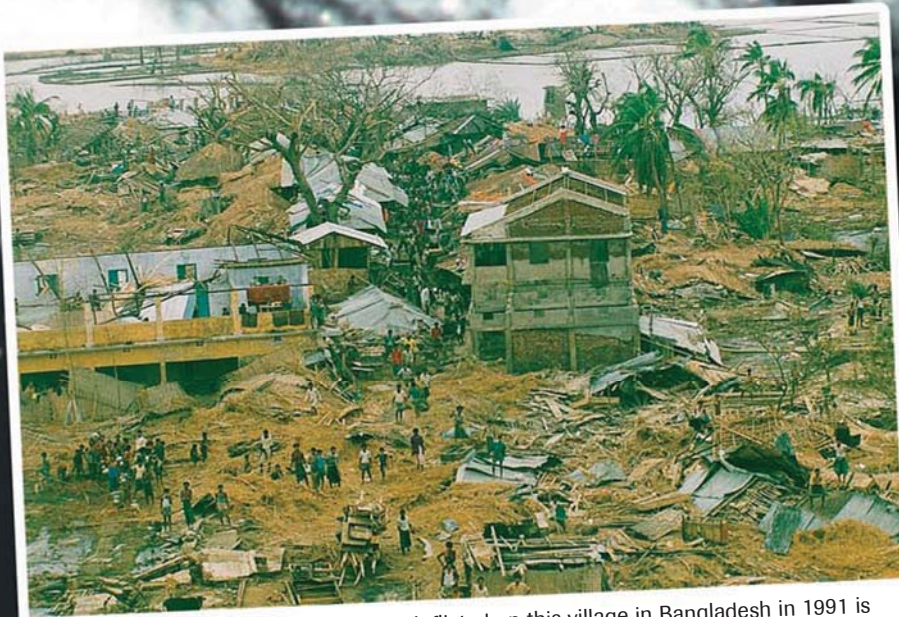
Disasters!

INTERACTIVE

The Cyclone of 1970

On November 13, 1970, a violent tropical storm struck Bangladesh, bringing death and destruction in its wake. Hundreds of thousands of people and their homes, crops, and animals were swept away in the fury of the 20th century's worst tropical storm. The cyclone's winds, rains, and floods claimed an estimated 300,000 to 500,000 lives. Also, approximately one million were left homeless, roughly 80 percent of the rice crop was lost, and about 70 percent of the country's fishing boats were wrecked. More than any other South Asian country, Bangladesh—with its low-lying coastal plain—suffers from these frequently occurring storms.





The damage inflicted on this village in Bangladesh in 1991 is typical of the destructive force of a cyclone's winds and the torrential rains and floods that are a part of this weather system.



Concrete shelters constructed on stilts, as shown here, and reinforced school buildings are refuges from high floodwaters and winds that can knock down all but the strongest buildings.

GeoActivity

ANNOUNCING THE DAMAGE

Use the Internet to research the cyclone of November 1970. Read accounts of its destructive force. Gather data on the storm itself and the damage that it caused. Then prepare a **press release** about the storm.

- Begin with an overview of the storm.
- Provide a map and statistics.
- Present your press release to a group of student reporters.



RESEARCH LINKS
CLASSZONE.COM

GeoData

TROPICAL STORMS

Violent tropical storms are called cyclones in the Indian Ocean, typhoons in the northwestern Pacific Ocean, and hurricanes in the Atlantic Ocean. These storms:

- develop over tropical waters in the late summer and fall when ocean temperatures are warmest
- usually begin as a cluster of thunderstorms that start to spiral and then form a single violent storm
- may be as wide as 675 miles
- have winds that range from 75 to 150 miles per hour
- generally last a week but some may take two or three weeks to die out
- produce heavy flooding that is the cause of most of the destruction and deaths
- inflict most of their damage along coastlines

OTHER BANGLADESHI STORMS

- May 28–29, 1963—22,000 deaths
- May 11–12, 1965—17,000 deaths
- June 1–12, 1965—30,000 deaths
- April 30, 1991—139,000 deaths



Nepal and Bhutan

A HUMAN PERSPECTIVE In the novel *Lost Horizon*, James Hilton described an imaginary mountain valley called Shangri-La, hidden high in the Himalayas. He wrote, “The floor of the valley, hazily distant, welcomed the eye with greenness; sheltered from winds . . . completely isolated by the lofty and sheerly unscalable ranges on the further side.” Shangri-La was an earthly paradise: a land of peace, harmony, and beauty, where hunger, disease, and war did not exist. Hilton located this mythical land somewhere in Tibet, but it could just as easily have been in Nepal or Bhutan. Although neither of these countries is a paradise, both are remote lands of great beauty and peace.

Mountain Kingdoms

Nepal and Bhutan share a number of important characteristics. Both are located in the Himalayas, a factor that has had a great impact on their history and economic development. Both also are kingdoms with strong religious traditions.

GEOGRAPHIC ISOLATION The main geographic feature of Nepal and Bhutan is their mountainous landscape. Each country consists of a central upland of ridges and valleys leading up to the high mountains, with a small lowland area along the Indian border. The towering, snow-capped Himalayas run along the northern border with China. They are craggy and forbidding and have steep mountain passes and year-round ice fields. The world’s tallest mountain peak, Mt. Everest, is located there.

The rugged landscape of Nepal and Bhutan has isolated the two countries throughout their histories. Their mountainous terrain and landlocked location—neither country has access to the sea—made them hard to reach and difficult to conquer and settle. China controlled Bhutan briefly in the 18th century. In the 19th century, Great Britain had influence over both countries because of its control of neighboring India. But Nepal and Bhutan generally remained independent and isolated. In fact, until the past few decades, foreigners rarely entered either country.

EVOLVING MONARCHIES For much of their history, Nepal and Bhutan were split into small religious kingdoms or ruling states. Hindu kings ruled in Nepal, while Buddhist priests controlled Bhutan. In time, unified kingdoms emerged in both countries, led by hereditary monarchs who passed the throne on to their heirs.

Today, the governments of both Nepal and Bhutan are **constitutional monarchies**—kingdoms in which the ruler’s powers are limited by a

Main Ideas

- Nepal and Bhutan are landlocked Himalayan kingdoms.
- Rugged terrain and an isolated location have had a great impact on life in Nepal and Bhutan.

Places & Terms

constitutional monarchy

Sherpa

Siddhartha Gautama

mandala

CONNECT TO THE ISSUES

ECONOMIC DEVELOPMENT

Decades of isolation and difficult topography have limited economic growth in Nepal and Bhutan.

REGION Richly decorated cloths that display Buddhist religious symbols, such as the cloth shown below, have covered the thrones of Bhutanese rulers. **Why might there be religious symbols on a throne cloth used by secular rulers?**





constitution. In Bhutan, the king is still the supreme ruler, while in Nepal the king shares power with an elected parliament. Both governments face difficult political challenges, including the need to balance the interests of their two powerful neighbors, China and India. Both countries also face difficult economic challenges.



PLACE A blend of the old and the new is evident in the architecture of this square in Kathmandu, Nepal's capital city.

Why might this rich cultural tradition make Kathmandu attractive to tourists?

Developing Economies

Decades of isolation and difficult topography have limited economic development in Nepal and Bhutan. Now each country is trying to find effective ways to promote economic growth.

LIMITED RESOURCES Nepal and Bhutan are poor countries with economies based mainly on agriculture. Because of the mountainous terrain, neither country has much land suitable for cultivation. Most farm plots are small, soils are poor, and erosion is a problem. Farmers create terraces on the mountainsides to increase the amount of farmland and limit soil loss, a process you read about in Chapter 9. Common farm products include rice, corn, potatoes, and wheat. Common livestock are cattle, sheep, and yaks—longhaired animals related to the ox. In Bhutan, the government has promoted the growing of fruit for export and has tried to improve farming practices.

The timber industry is very important to both countries, although deforestation is a problem. The forests of Nepal are being cut down at a rate of about 1 percent a year. But some valuable timberlands remain. Around 70 percent of Bhutan is still forested. A growing manufacturing sector of the economy includes wood products, food processing, and cement production. Most trade for both countries is with India. **A**

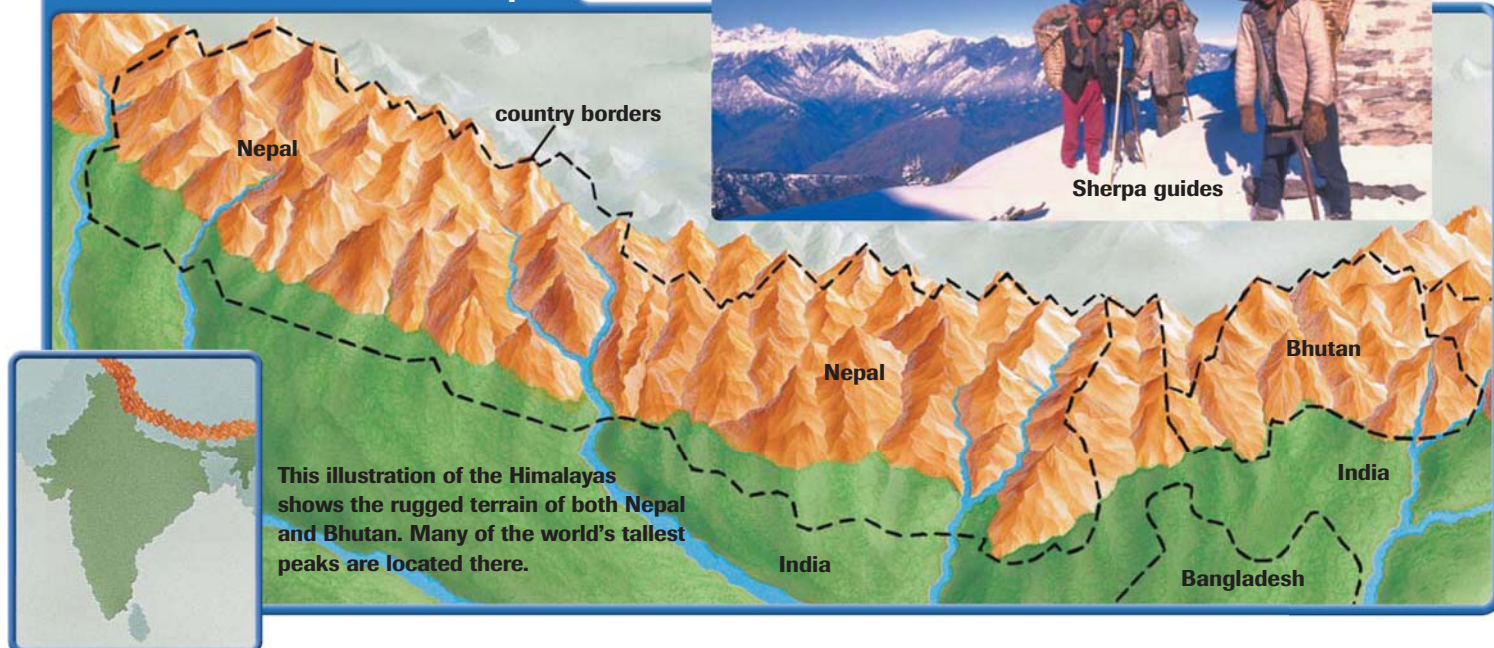
INCREASING TOURISM One of the fastest growing industries in Nepal is tourism. Tourists come from around the world to visit the valley of Kathmandu, the capital, and to climb the Himalayas. Hotels and restaurants, transportation, and other services have grown to meet the needs of the tourist industry. But tourism is a mixed blessing. It has



Making Comparisons

A What activities are important to the economies of Nepal and Bhutan?

Mountains of Bhutan and Nepal



HUMAN-ENVIRONMENT INTERACTION

The Sherpa are known for their mountaineering skills and their ability to carry heavy loads at high altitudes.

Why might mountain climbers seek out the Sherpas as guides and porters?

damaged the environment, particularly on mountain slopes, where increased trash and pollution have been most noticeable.

Bhutan, which offers many of the same natural attractions as Nepal, has taken a different approach to tourism. Concerned about the impact of tourists on national life, Bhutan regulates the tourist industry. It allows only limited numbers of visitors and keeps some areas of the country off-limits. Even so, tourism is providing increasing revenues to Bhutan and offers significant economic potential for the future.

Rich Cultural Traditions

Visitors to Nepal and Bhutan come not only for the spectacular mountain scenery but also for a glimpse of the rich cultural traditions of the Himalayan people.

A MIX OF PEOPLES Various ethnic groups inhabit the Himalayan region. In Nepal, the majority of the people are Indo-Nepalese Hindus whose ancestors came from India many centuries ago. These groups speak Nepali, a variation of Sanskrit, an ancient Indo-Aryan language. Nepal also has a number of groups of Tibetan ancestry. Among them are the **Sherpas**. These people from the high Himalayas are the traditional mountain guides of the Everest region.

The main ethnic group in Bhutan is the Bhote, who also trace their origins to Tibet. Most Bhotes live in two-story houses made of wood and stone. The families live on the second floor, while the first floor is reserved for livestock. Bhutan also has a sizable Nepalese minority in the southern lowlands. The Nepalese have preserved their language and customs, even though the government of Bhutan has tried to assimilate them into national life.

RELIGIOUS CUSTOMS Religion is a powerful force in both Nepal and Bhutan. Although the great majority of Nepalese are Hindus, Buddhism also has deep roots in Nepal. The founder of Buddhism, **Siddhartha Gautama**, known as the Buddha, was born on the borders of present-day

BACKGROUND

Another Nepalese people, the Gurkhas from the valleys west of Kathmandu, are known as fierce fighters. They have been recruited since the mid-19th century to serve in the British and Indian armies.

Nepal and India in the sixth century B.C. Buddhist teachings initially took hold in Nepal but were later replaced by Hinduism when Hindu rulers came to power. Today, Hindu practices still show traces of Buddhist influence.

Buddhism is the official religion of Bhutan. The people practice a Tibetan style of Buddhism, which includes the use of **mandalas**—geometric designs that are symbols of the universe and aid in meditation. Early communities in Bhutan were organized around large fortress-monasteries, which are still found in many parts of the country. Also scattered around the countryside are small shrines that were built to house sacred relics and are excellent examples of Buddhist architecture.

THE ARTS AND RECREATION Folk art and festivals are an important feature of Himalayan culture. Artisans make beautiful metal bells, swords, and jewelry, and carve intricate wooden sculptures. They also weave colorful textiles from silk, cotton, and wool. During festivals in Nepal and Bhutan, musicians play traditional songs on flutes, drums, and long brass horns. At the same time, people in elaborate costumes perform dances based on religious stories. Bhutan is also famous for its archery competitions. This tradition goes back to ancient times, when Bhutanese warriors were known as the finest archers in the Himalayas. **B**

In this section, you read about life in South Asia's mountainous north. Next, you will learn about life in the southern islands.



REGION Masked dancers perform a traditional Tibetan ceremony during a religious festival in Bhutan.



Seeing Patterns

B Why might archery have been a particularly useful military option in Bhutan?



Assessment

1 Places & Terms

Identify these terms and explain their importance in the region.

- constitutional monarchy
- Sherpa
- Siddhartha Gautama
- mandala

2 Taking Notes

REGION Review the notes you took for this section.

Nepal and Bhutan

South Asia

- What effect does the mountainous terrain have on the economies of Nepal and Bhutan?
- What religions are practiced in Nepal and Bhutan?

3 Main Ideas

- What kind of government do Nepal and Bhutan have today?
- How is tourism affecting the economies of these two countries?
- What are some of the important features of Himalayan culture?

4 Geographic Thinking

Drawing Conclusions How has the physical geography of Nepal and Bhutan affected their development? **Think about:**

- the mountainous landscape
- their landlocked location

S See Skillbuilder Handbook, page R5.



EXPLORING LOCAL GEOGRAPHY Review the information about arts and recreation on this page. Then do research about a festival, athletic competition, or craft that is unique to your city, state, or region. Write a **letter** to a friend in another city, state, or country describing the event or product.



Sri Lanka and the Maldives

A HUMAN PERSPECTIVE For centuries, Sri Lanka and the Maldives have been ports of call for ships from around the world. The Greeks, Romans, Persians, Chinese, and Arabs all knew about these islands. Arab traders referred to Sri Lanka as Serendib, and they called the Maldives the “Money Isles” for their abundance of cowrie shells—seashells first used in ancient times as currency. Later, European traders came for spices, ivory, pearls, and other goods. Throughout history, visitors have been drawn to these islands in the Indian Ocean. The explorer Marco Polo referred to the Maldives as “one of the wonders of the world.”

History of the Islands

Because the islands are close to India, Sri Lanka and the Maldives have strong ties to the Indian subcontinent. Even so, each country has its own distinct history.

SETTLEMENT OF SRI LANKA In the sixth century B.C., people from the northern plains of India crossed the narrow strait separating the subcontinent from Sri Lanka. They came to be known as the **Sinhalese**. They absorbed the island’s native inhabitants and created an advanced civilization on Sri Lanka. They adopted Buddhism and built sophisticated irrigation systems that allowed farming on land that was dry. In the fourth century A.D., another group of Indians began to arrive. These were the **Tamils**—Dravidian Hindus from southern India. The Tamils brought a different culture and language to Sri Lanka. They settled the northern end of the island, while the Sinhalese moved farther south.

Europeans began to colonize Sri Lanka in the 16th century. First came the Portuguese, followed by the Dutch. The British took control of the island—which they called Ceylon—in 1796 and ruled until its independence in 1948. In 1972, Ceylon changed its name to Sri Lanka and became a republic.

After independence, tensions grew between the Sinhalese and Tamil populations. The minority Tamils (about 18 percent of the population) claimed discrimination at the hands of the Sinhalese majority (about 74 percent). They began to call for an independent state to be called *Tamil Eelam* (Precious Land of the Tamils). In the 1980s, civil war broke out between the government and the rebels, who were called the Tamil Tigers. Violence has claimed many lives since then and continues to disrupt Sri Lankan life.

A MUSLIM STATE IN THE MALDIVES The Maldives were settled by Buddhists and Hindus from Sri Lanka and India some time around

Main Ideas

- Sri Lanka and the Maldives are island countries with strong connections to the South Asian subcontinent.
- Sri Lanka and the Maldives face difficult challenges that affect their political and economic development.

Places & Terms

Sinhalese

Tamils

sultan

CONNECT TO THE ISSUES

TERRITORIAL DISPUTE

Tamil rebels in Sri Lanka are fighting to establish an independent state.

PLACE The Tamil Tigers are anti-government rebels in Sri Lanka. This is their emblem.

Why might a tiger have been chosen for this militant group’s name?



the sixth century B.C. Later, Arab traders made frequent visits. By the 12th century, the population had converted to Islam. Six dynasties of Muslim rulers, or **sultans**, governed the Maldives after that, despite periods of foreign intervention. In 1968, the Maldives declared itself a republic, headed by an elected president. With its 1,200 islands comprising a land area of just 115 square miles and its population of only about 300,000 people, the Maldives is one of the world's smallest independent countries.

Life in the Islands

As in the rest of South Asia, religion and ethnicity are key factors in the social and cultural life of Sri Lanka and the Maldives.

ETHNIC MOSAIC OF THE ISLANDS Sri Lanka is a diverse mix of ethnic and religious groups. Sinhalese Buddhists make up nearly 75 percent of the population, while Tamil Hindus make up about 18 percent. Around 7 percent of the people are Muslims, who are descended from the early Arab traders. There is also a small community of Christians of mixed European descent, known as Burghers. **A**

Most Sinhalese live in the southern, western, and central parts of the country. The Tamils are concentrated in the northern Jaffna Peninsula, where much of the fighting has taken place. Another group of Tamils lives in the central highlands. These people are the descendants of Indian migrants who came to work on British plantations in the 19th century. Muslims live mainly in the eastern lowlands. The capital city, Colombo, is a busy urban center. But most Sri Lankans continue to live in smaller towns and villages scattered across the country.

The population of the Maldives is also multi-ethnic. Most of the people are descended from the early Sinhalese and Dravidian inhabitants, who mixed with Arab, Southeast Asian, and Chinese traders over the centuries. The official language is Divehi, a language unique to the Maldives.

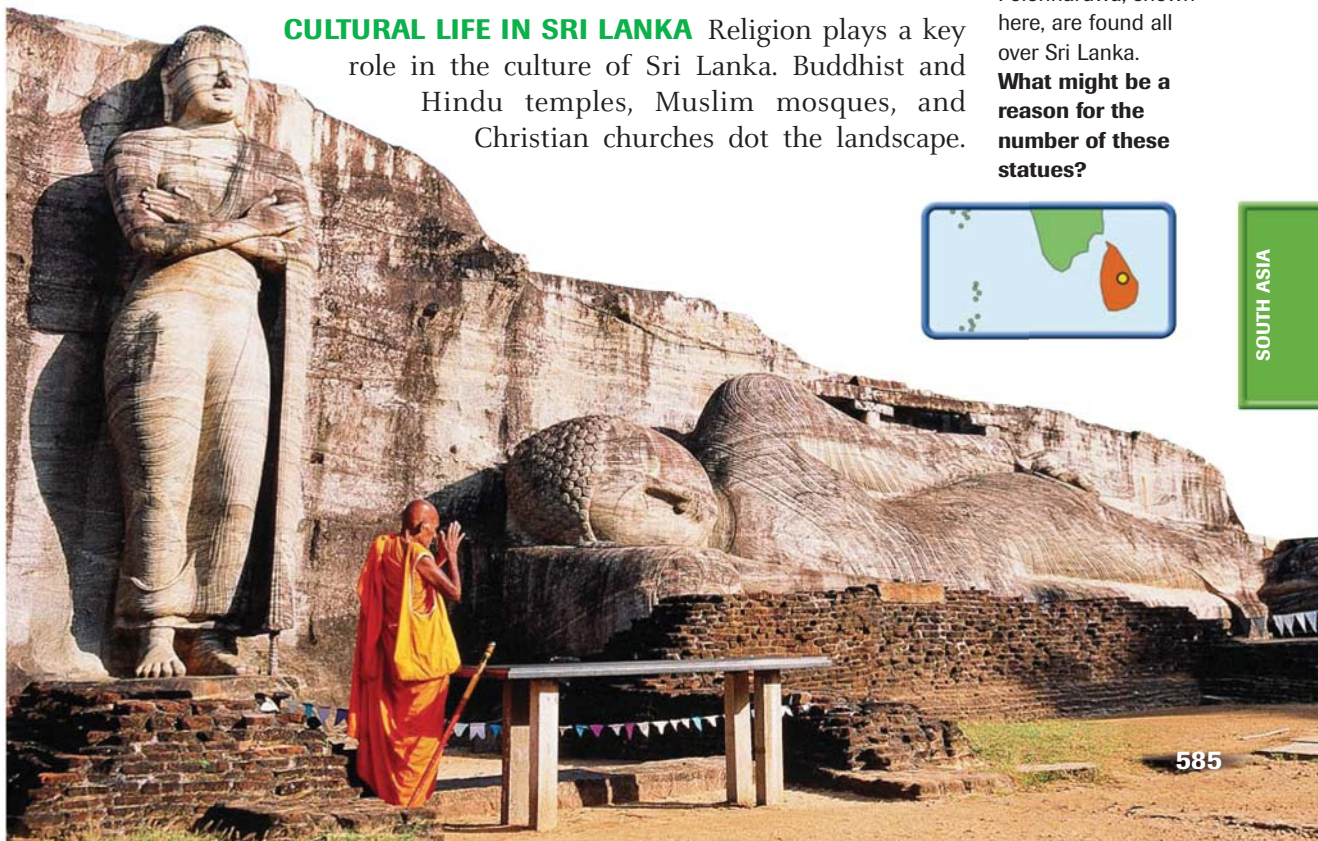
Arabic, Hindi, and English are also commonly spoken.

CULTURAL LIFE IN SRI LANKA Religion plays a key role in the culture of Sri Lanka. Buddhist and Hindu temples, Muslim mosques, and Christian churches dot the landscape.

PLACE Large statues of Buddha, such as the 46-foot Sleeping Buddha of Polonnaruwa, shown here, are found all over Sri Lanka. **What might be a reason for the number of these statues?**



SOUTH ASIA



Using the Atlas

A Using the atlas on page 543, locate Sri Lanka and the continents of Africa and Asia. Why might this island have been visited by Arab traders during its history?

Art and literature are strongly influenced by those religious traditions. Folk dancing is a notable cultural tradition. The most famous style is *Kandyan* dancing, the national dance. The dances tell the stories of local kings and heroes and are performed at Buddhist festivals. During the yearly *Perahera* festival, dancers dressed in glittering silver headpieces and jewelry leap and spin in complex, acrobatic movements.

CULTURAL LIFE IN THE MALDIVES Muslim customs have a strong influence on the culture of the Maldives. Islam is the state religion, and no other religions are allowed. One of the highlights of Maldivian culture is *bodu beru* (“big drum”) music and dance based on drumming. In a *bodu beru* performance, dancers sway to the drumbeat with increasing intensity. This musical tradition has strong African influences.

Economic Activity in the Islands

Like small countries everywhere, the Maldives and Sri Lanka face tough economic challenges. Yet, each country has made good use of its resources to promote economic growth. Today, Sri Lanka has the highest per capita income in South Asia, and the Maldives is not far behind. **B**

ECONOMIC STRENGTHS Like most of South Asia’s economies, the economy of Sri Lanka is based on agriculture—mainly rice farming. But unlike most other countries of the region, Sri Lanka has large areas devoted to plantation agriculture. These large farms produce crops such as tea, rubber, and coconuts for export. While this type of agriculture is

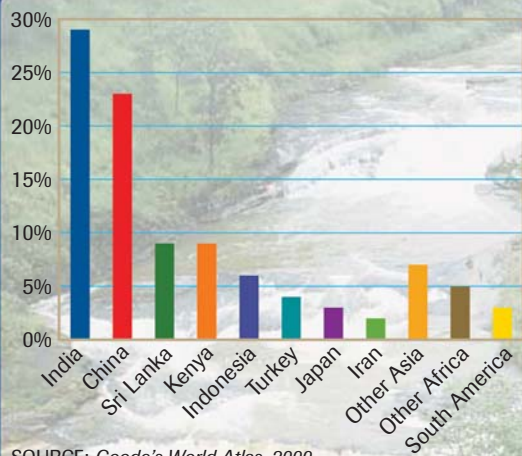


Making Comparisons

B What might be some of the economic challenges facing small developing countries such as Sri Lanka and the Maldives?

REGION Workers pick tea leaves on a plantation in Sri Lanka.

World Tea Production



SOURCE: Goode's World Atlas, 2000

BACKGROUND

One of the world's most famous gems—a star sapphire called the “Star of India”—is actually from Sri Lanka.

declining, Sri Lanka is still one of the world's leading tea-producing countries. Although manufacturing is increasing, other sectors of the Sri Lankan economy are less important. Overcutting has damaged the timber industry, and the fishing and mining industries are relatively small. One exception is gem mining. Sri Lanka is famous for its gemstones—including sapphires, rubies, and topaz.

The economy of the Maldives is different from the economies of the rest of South Asia. Farming is limited by a lack of land, and most food has to be imported. Fishing—for tuna, marlin, and sharks—was long the main economic activity. It still provides one-fourth of the jobs and a large share of the country's export earnings. But it has been replaced in importance by tourism. The islands' beautiful beaches, coral reefs, and impressive marine life draw visitors from around the world.

TOUGH CHALLENGES Until the 1980s, tourism was also growing in Sri Lanka. Then civil war began, and the tourist industry collapsed. Warfare has also disrupted other economic activities and damaged the country's infrastructure—its roads, bridges, power systems, and other services. Until peace returns to Sri Lanka, the economy is likely to struggle. While the Maldives is at peace, it faces a challenge of a different kind: global warming. The islands lie very low in the water, and any rise in sea level—caused by melting of the polar icecaps—could flood them completely. Scientists say this could happen by the end of the 21st century.

In this chapter, you read about modern life in South Asia. In the next chapter, you will read about issues facing South Asians.



LOCATION Tourist resorts in the Maldives are built only on previously uninhabited islands.

What might be a reason for locating the resorts on such islands?



Assessment

1 Places & Terms

Identify these terms and explain their importance in the region.

- Sinhalese
- Tamils
- sultan

2 Taking Notes

MOVEMENT Review the notes you took for this section.

South Asia

Sri Lanka and the Maldives

- How were the islands of the Maldives settled?
- Where do the different ethnic groups in Sri Lanka live?

3 Main Ideas

- a. What happened between the Sinhalese and the Tamils after Sri Lanka gained independence?
- b. What are some of the aspects of cultural life in the Maldives?
- c. What are some of the economic strengths of Sri Lanka and the Maldives?

4 Geographic Thinking

Seeing Patterns How do the Maldives's 1,200 islands affect its economy? **Think about:**

- fishing for food or sport
- the number of beaches



See Skillbuilder Handbook, page R8.



SEEING PATTERNS Review the information about tourism in the Maldives on this page. Do research on different activities for tourists and different places to visit in the country. Then create a **travel poster** advertising the Maldives as an ideal tourist destination.

Comparing Cultures

Musical Instruments

No one is exactly certain when or where music began to be made or what the first musical instrument was. But scholars believe that music has been part of all cultures, possibly even from earliest times. The first musical instrument may have been the human voice, which may have been used to mimic the sound of birds. Next, the human body was used to make rhythms, by clapping hands or stomping feet. When instruments began to be made, early musicians adapted available materials, such as wood and animal skins. Eventually, four basic types of instruments were developed: percussion, wind, string, and keyboard. Today, thousands of different instruments are played worldwide.



The bagpipe is a wind instrument that is associated with Scotland, although it is played in other countries. It consists of an animal skin or rubberized cloth bag fitted with one or more pipes that produce a continuous flow of sound when blown.

The drum is a percussion instrument from Africa that probably was made first from wood or stone. It is played by striking with hands or other objects. These drums are made of skins stretched over a frame. Also shown is another percussion instrument—the xylophone.





The didgeridoo is a wind instrument played by aboriginal people in Australia. Made of bamboo or a hollow sapling, it can be as long as five feet. It is generally painted and used in ritual ceremonies.

The sitar is a stringed instrument from India. It has a wooden body and is used mainly to play classical music. Anoushka Shankar, shown here with her sitar, is the daughter of famed sitarist Ravi Shankar, who brought the instrument to the world's attention with his playing in the 1960s.



GeoActivity

FORMING A BAND

With a small group, research other musical instruments. Plan a band that includes at least one of each of the four types of instruments. Then create **a multimedia presentation.**

- Provide visuals of each instrument.
- Write a description of each instrument's sound.
- Make an audiotape that has the sound of each instrument and play it in class.



RESEARCH LINKS
CLASSZONE.COM

GeoData

OTHER INSTRUMENTS

ASIA

- Empty conch shells with broken tips give off a loud sound when blown and have been used in ceremonies for centuries in many regions, including the islands of Polynesia.

EUROPE

- The organ is the oldest keyboard instrument and was found in ancient Greece more than 2,000 years ago. It gave birth to other keyboard instruments such as the harpsichord, clavichord, and piano.

THE AMERICAS

- Native American cultures have strongly emphasized the voice in making music.

AFRICA

- Wall paintings in 4,000-year-old tombs in Egypt show musicians playing lutes.
- Some African cultures still use a stone gong—a hanging stone that gives off a sound when struck.

VISUAL SUMMARY HUMAN GEOGRAPHY OF SOUTH ASIA

Subregions of South Asia

● India

- India is the largest country in South Asia and dominates the region.
- India is the world's largest democracy; Hinduism is its principal religion.

● Pakistan and Bangladesh

- Pakistan and Bangladesh were both eventually formed after the partition of India.
- Farming is the main source of people's livelihoods.
- Islam is the primary cultural force in those countries.

● Nepal and Bhutan

- Nepal and Bhutan developed in relative isolation because of the Himalaya Mountains.
- Nepal has a religious mix of both Hindus and Buddhists, while Bhutan is a predominantly Buddhist country.

● Sri Lanka and the Maldives

- Sri Lanka contains a variety of ethnic and religious groups, including Sinhalese Buddhists, Tamil Hindus, and Muslims.
- Sri Lanka's economy is based on farming and gem mining, while the Maldives relies on fishing and tourism.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

- | | |
|--------------------------|----------------|
| 1. Mughal Empire | 6. microcredit |
| 2. nonviolent resistance | 7. Sherpa |
| 3. caste system | 8. mandala |
| 4. partition | 9. Sinhalese |
| 5. Kashmir | 10. Tamils |

B. Answer the questions about vocabulary in complete sentences.

11. How did the great Indian leader Mohandas Gandhi protest British control of India?
12. Over which territory have India and Pakistan fought several wars?
13. What financial aid do poor South Asian entrepreneurs seek?
14. How was the country of West and East Pakistan formed after Indian independence?
15. What did the Muslims establish in India during the 16th century?
16. What people arrived in Sri Lanka from southern India and occupied the northern portion of the island?
17. Who created an advanced civilization in Sri Lanka and built sophisticated irrigation systems?
18. Who guides mountain climbers in the Everest region?
19. What are geometric designs that are symbols of the universe and aid in meditation?
20. What is a Hindu system of social classes?

Main Ideas

India (pp. 567–572)

1. How did Britain gain control of India?
2. What are the major economic activities in India?
3. What are the major languages of India?

Pakistan and Bangladesh (pp. 573–579)

4. What are some of the characteristics of the Indus Valley civilization?
5. What manufactured products are produced in Pakistan and Bangladesh?
6. What type of literature is important in Pakistan and Bangladesh?

Nepal and Bhutan (pp. 580–583)

7. What are some of the groups of people that live in Nepal?
8. What are some important religious customs in Bhutan?

Sri Lanka and the Maldives (pp. 584–589)

9. What are the two major ethnic groups in Sri Lanka and where did they come from?
10. What are some of the challenges facing the economies of Sri Lanka and the Maldives?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.



- What role does agriculture play in the economies of the South Asian countries?
- What are the major religions practiced in the region?

2. Geographic Themes

- HUMAN-ENVIRONMENT INTERACTION** How did the mountainous terrain and the landlocked location of Nepal and Bhutan affect their development?
- LOCATION** How do the landforms and location of the Maldives ensure that its economy is different from other South Asian countries?

3. Identifying Themes

What groups of people first populated the Indian subcontinent and eventually helped to populate all of South Asia? Which of the five themes apply to this situation?

4. Making Comparisons

How do Pakistan and Bangladesh differ in their practice of Islam?

5. Determining Cause and Effect

What are some of the reasons for the ongoing violence between the Tamils and the Sinhalese in Sri Lanka?

Additional Test Practice,
pp. S1–S37



TEST PRACTICE
CLASSZONE.COM

Geographic Skills: Interpreting Maps

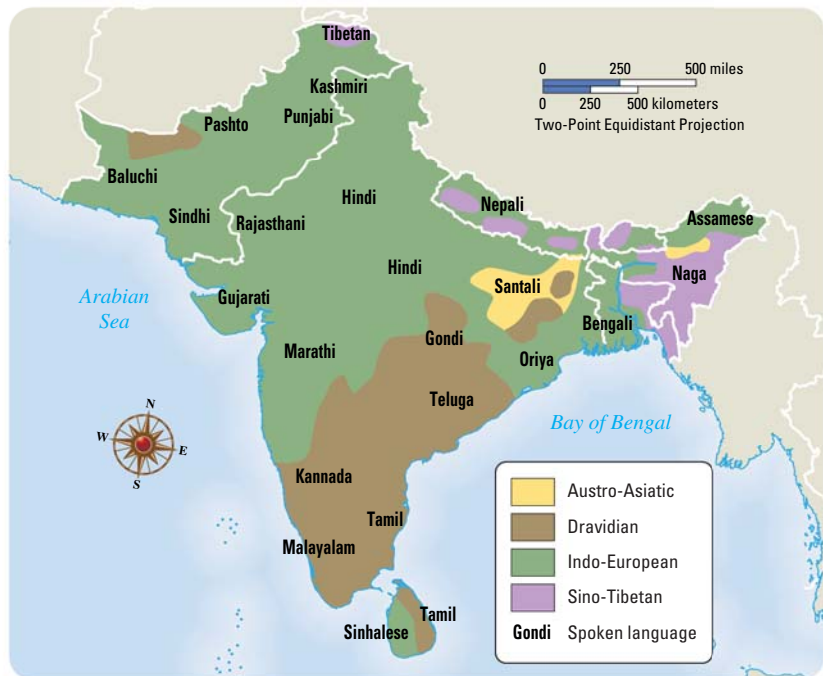
Languages of South Asia

Use the map at right to answer the following questions.

- LOCATION** How many major languages are spoken in South Asia?
- REGION** Which language group is the most commonly spoken?
- MOVEMENT** How might the number of languages in South Asia affect its developing economies?



Choose a country in South Asia in which more than one language is spoken, and prepare a chart showing the number of people speaking each language. Use library references or the Internet for your research.



INTERNET ACTIVITY

Use the links at classzone.com to do research on the people of one South Asian country. Look for such information as life expectancy, religions, ethnic groups, literacy rates, and per capita income.

Writing About Geography Write a report about your findings. Use standard grammar, spelling, sentence structure, and punctuation in your report. List the Web sites that you used as sources.

TODAY'S ISSUES

South Asia

SECTION 1

Population Explosion

SECTION 2

Living with Extreme Weather

CASE STUDY

TERRITORIAL DISPUTE

For more on these issues in South Asia . . .



CURRENT EVENTS

CLASSZONE.COM

Kolkata is one of India's most densely populated cities.

GeoFocus

How can people and governments work together to solve problems?

Taking Notes In your notebook, copy a cause-effect chart like the one shown below for each issue. Then take notes on the causes and effects of some aspect of each issue.

	<i>Causes</i>	<i>Effects</i>
Issue 1: <i>Population</i>		
Issue 2: <i>Extreme Weather</i>		
Case Study: <i>Territorial Dispute</i>		



Population Explosion

How can South Asia's population growth be managed?

A HUMAN PERSPECTIVE On May 11, 2000, at 5:05 A.M., a baby girl was born in a New Delhi hospital. Her parents named her Astha, which means “faith” in the Hindi language. Ordinarily, Astha’s birth would not have made news. After all, an estimated 42,000 babies are born in India every day—15,330,000 each year. Astha, however, was special. With this child’s birth, the population of India officially hit 1 billion. It was the second country to reach a billion in population; China was the first.

Growing Pains

India’s milestone was a mixed blessing. Its population at the beginning of the 21st century is growing so quickly that many of its citizens lack life’s **basic necessities**—food, clothing, and shelter. The question for India, and for South Asia as a whole, is how to manage population growth so that economic development can continue.

POPULATION GROWS When India gained its independence from Britain in 1947, the population stood at 300 million. By 2000, the population had more than tripled. India’s population is so large that even an annual growth rate of less than 2 percent is producing a population explosion. Unless that growth slows down, in 2045, India will be home to more than 1.5 billion people—all living in a land about one-third the size of the United States. India will be the most populous country in the world, surpassing China.

India is not alone in its skyrocketing population. In fact, of the 10 most populous countries in the world in 1998, three were located in South Asia: India, Pakistan, and Bangladesh. South Asia is home to 22 percent of the world’s population. But these people live on less than 3 percent of the world’s land area.

INADEQUATE RESOURCES As South Asia’s population has increased, regional governments have found it more and more difficult to meet the needs of their people. Widespread poverty and **illiteracy**, the inability to read or

Main Ideas

- Explosive population growth in South Asia has contributed to social and economic ills in the region.
- Education is key to controlling population growth and improving the quality of life in South Asia.

Places & Terms

basic necessities

illiteracy



**The Voyageur Experience
in World Geography**

India: Population and Resources

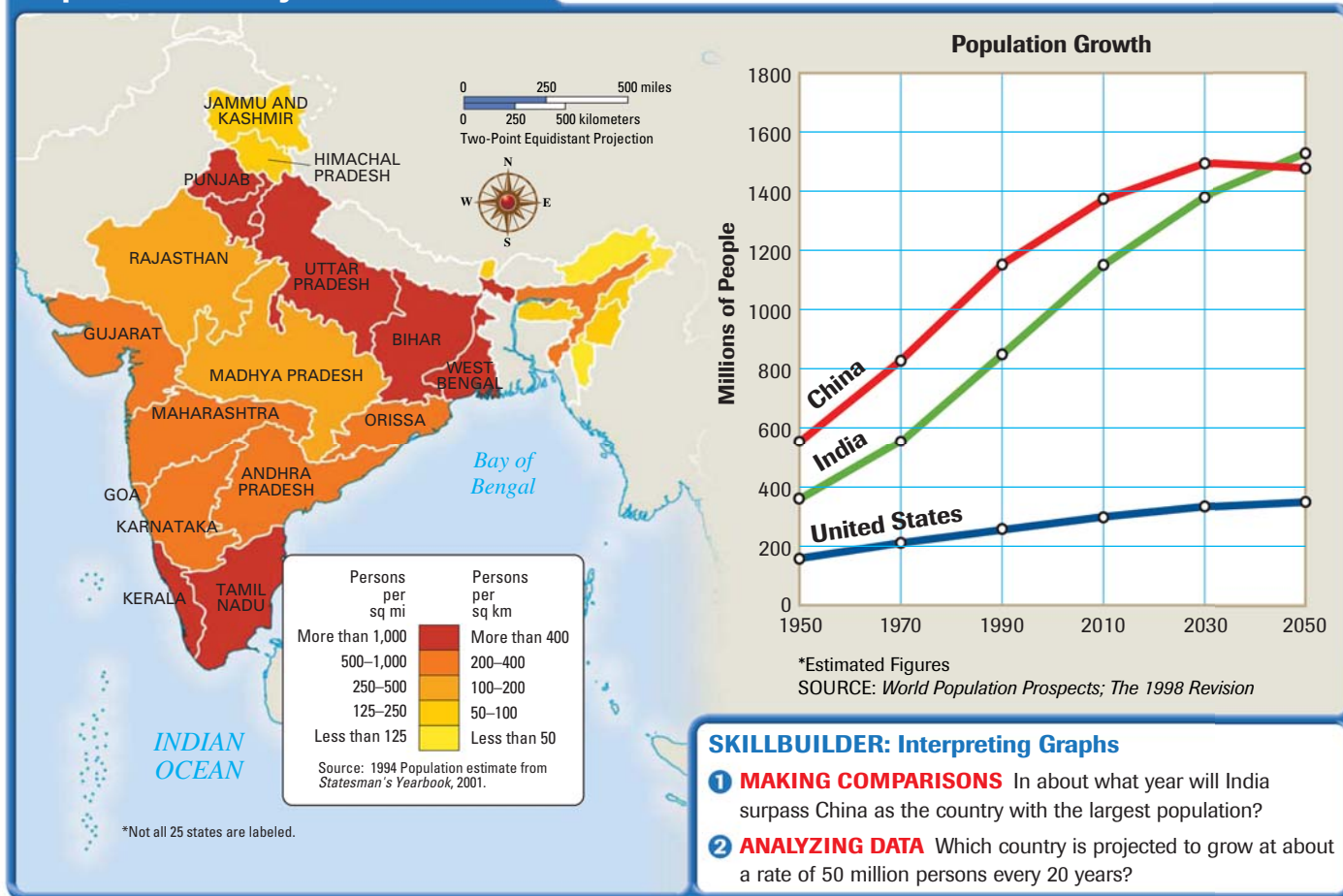
REGION The homeless poor are a common sight in many of India’s large cities, such as Mumbai, pictured below.

What might be some ways in which the homeless can be helped?



SOUTH ASIA

Population Density in Indian States




write, have left millions without hope that their lives would improve. Poor sanitation and the lack of health education have led to outbreaks of disease, which have overwhelmed the region's limited health care systems.

Officials estimate that in order to keep pace with population growth, India will have to do the following *every year*: build 127,000 new village schools, hire nearly 400,000 new teachers, construct 2.5 million new homes, create 4 million new jobs, and produce an additional 6 million tons of food.

Managing Population Growth


South Asia has struggled for decades to find solutions to its population explosion. But efforts have met with only limited success.

SMALLER FAMILIES Today, India spends much of its nearly \$1 billion annual health-care budget encouraging Indians to have smaller families. "Let's have small families for a stronger India" is one of the slogans of the campaign. For many reasons, however, these programs have had only limited success. Indian women usually marry before age 18 and start having babies early. Also, for the very poor, children are a source of income. They can beg for money in the streets as early as their third birthday and can work the fields not too many years later. 

For many Indians, children represent security in old age. The more children a family has, the more likely someone will be around to take care of the parents when they are elderly. Also, the infant mortality rate



Seeing Patterns

 How might smaller families affect India's economic development?

is very high in South Asia—around 75 per 1,000 live births compared to 7 per 1,000 in the United States. As a result, parents try to have many children to ensure that at least some will reach adulthood.

EDUCATION IS A KEY Many factors that affect population growth can be changed through education. However, South Asia's governments have a difficult task ahead of them because education funds are limited. For example, India spends less than \$6 per pupil annually on primary and secondary education. (Only a small fraction of this sum is spent on girls.) By contrast, annual per pupil spending on education in the United States is \$6,320—more than 1,000 times as much.

Education is essential to break the cycle of poverty and provide South Asians with the means to raise their standard of living. It also helps to improve the status of females by giving them job opportunities outside the home. Better health education also can reduce the need for large families by ensuring that more babies reach adulthood. The future development of South Asia depends on the success of such efforts to control population growth.

In the next section, you will learn how the people of South Asia are coping with another problem—the region's extreme weather.

BACKGROUND

Statistics for 1997–1998 showed that about 85 percent of Indian boys aged 6 to 12 are in school, compared to about 70 percent of girls.



HUMAN-ENVIRONMENT INTERACTION

The rural poor build settlements on unused land in many cities, such as these in Ahmedabad, India.

Why might the rural poor be attracted to urban areas?



Assessment

1 Places & Terms

Explain the importance of each of the following terms and places.

- basic necessities
- illiteracy

2 Taking Notes

PLACE Review the notes you took for this section.

	Causes	Effects
Issue 1: Population		

- How much did India's population grow in the second half of the 20th century?
- If this growth rate continues, what will India's population be in 2045?

3 Main Ideas

- Why is the size of India's population a problem?
- How has the government of India addressed population issues?
- Why have government programs had mixed success?

4 Geographic Thinking

Making Inferences How does the population density in India compare to that in the United States? **Think about:**

- population size
- territorial size



RESEARCH LINKS
CLASSZONE.COM



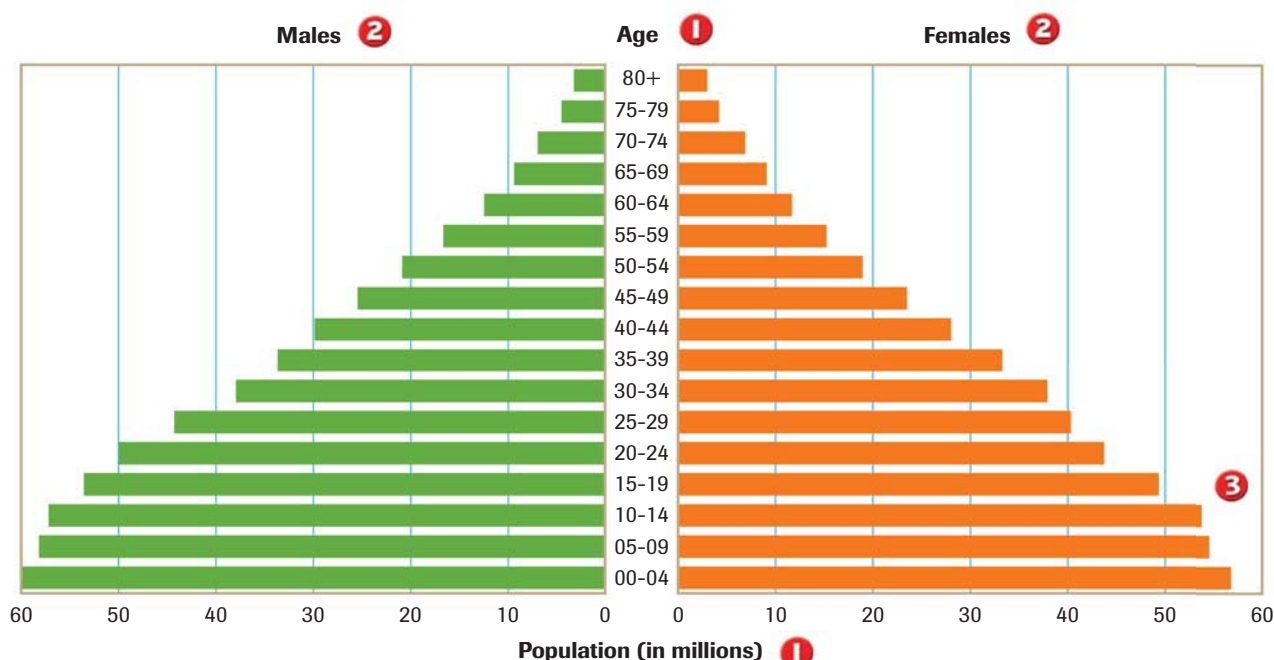
MAKING COMPARISONS Carry out further research focused on comparing 20th-century population growth in a city in India and one in the United States. Use the data that you gather to create a **line graph** that compares population growth in these two cities.

Reading a Population Pyramid

Every nation has a certain distribution of population by age group. India, for instance, has a young population; the majority of people are under the age of 30. To show how the population of a country is distributed by age, a population pyramid is a very useful tool.

THE LANGUAGE OF GRAPHS A **population pyramid** is a type of bar graph. It shows the number or percentage of people that fall into specific age groups. It may also compare the distribution of age groups by sex, ethnic group, or some other category. The population pyramid below shows the distribution of age groups by sex in India.

Population of India, 2000



SOURCE: U.S. Census Bureau, International Data Base

- 1** The horizontal axis shows population in millions. The vertical axis lists age groups.
- 2** The left side of the pyramid shows the population distribution of males in India. The right side shows females.
- 3** Notice that there is a steady drop in population as Indians reach their late teens. This indicates that the life expectancy of Indians is relatively short.

Map and Graph Skills Assessment

1. Analyzing Data

Find the bar on the pyramid that would be your age and sex. How many millions of persons fall into that group in India?

2. Making Comparisons

What age group is the largest?
What is the largest age group by sex?

3. Making Inferences

What might be said about the male/female composition of the population of India?



Living with Extreme Weather

How do people cope with extreme weather?

A HUMAN PERSPECTIVE In May 1996, a fierce tornado tore through northern Bangladesh, leaving more than 700 people dead and 30,000 injured. Winds reached speeds of 125 mph. Within 30 minutes, nearly 80 villages had been destroyed. In the town of Rampur, Reazuddin Ahmed and his family sought shelter behind a concrete wall. All the while, houses were tossed into the air around them. Babul Ahmed, Reazuddin's 10-year-old son, described his family's terror: "It was dust and wind everywhere. We prayed to God: 'Save us.'" The tornado that terrorized the family was not unusual. It was just one of many types of extreme weather that plague South Asia and make life both difficult and dangerous.

The Monsoon Seasons

South Asia is home to an annual cycle of powerful, destructive weather, including the monsoon. The monsoon is a wind system, not a rainstorm. There are two monsoon seasons—the moist summer monsoon and the dry, cool winter monsoon. (The illustrations on the next page show the monsoon pattern in winter and summer.)

The **summer monsoon** is a wind system that blows from the southwest across the Indian Ocean toward South Asia from June through September. These winds stir up powerful storms that release vast amounts of rain and cause severe flooding.

The **winter monsoon** is a wind system that blows from the northeast across the Himalayas toward the sea from October through February. Unlike the summer monsoon, the winter winds carry little moisture. A drought can result if the summer monsoon has failed to bring normal levels of moisture. From March through May, there are no strong prevailing wind patterns.

Impact of the Monsoons

The monsoon winds shape the rhythms of life for South Asia's people and also affect relations between its countries.

PHYSICAL IMPACT The rains that accompany the summer monsoons are critical to the agriculture of

Main Ideas

- South Asia experiences a yearly cycle of floods, often followed by drought.
- The extreme weather in South Asia leads to serious physical, economic, and political consequences.

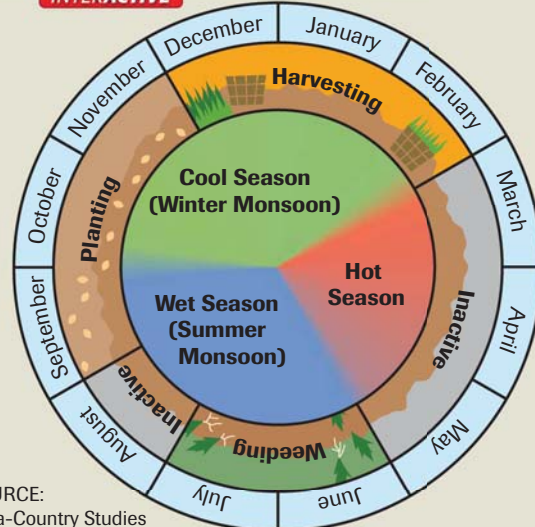
Places & Terms

summer monsoon

winter monsoon

Farming Calendar in India

INTERACTIVE



SOURCE:
India-Country Studies

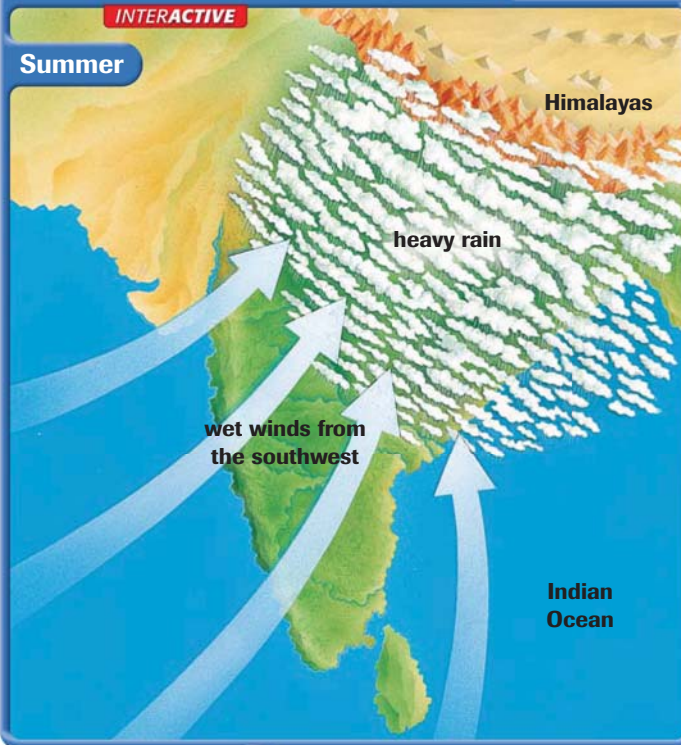
SKILLBUILDER: Interpreting Graphics

- 1 **ANALYZING DATA** During what season is there no agricultural activity?
- 2 **MAKING INFERENCES** Which season is the most productive?

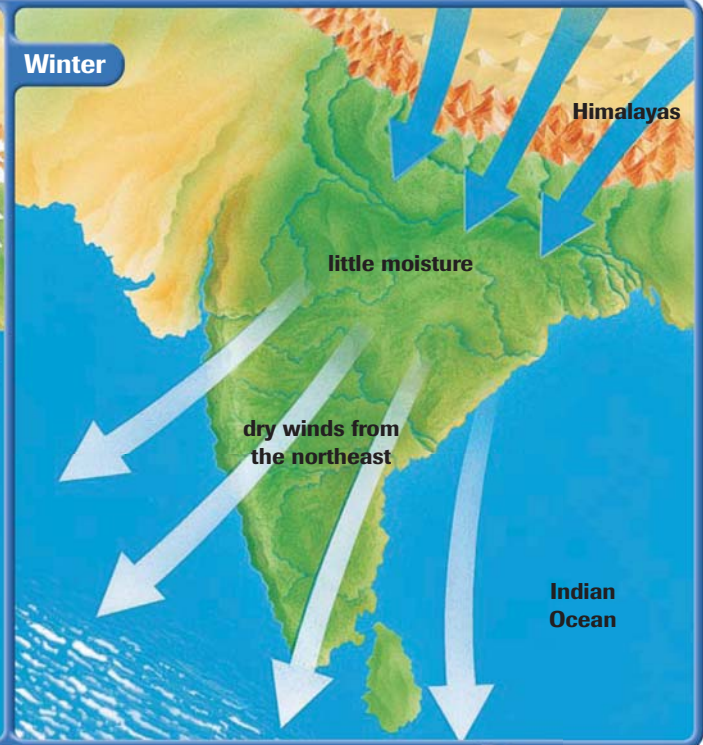
Summer and Winter Monsoons

INTERACTIVE

Summer



Winter



SKILLBUILDER: Interpreting Maps

- 1 **MOVEMENT** What direction do the summer monsoon winds follow?
- 2 **MOVEMENT** What direction do the winter monsoon winds follow?

South Asia, as the farming calendar on page 597 shows. They help nourish the rain forests, irrigate crops, and produce the floodwaters that deposit layers of rich sediment to replenish the soil. However, heavy flooding can also damage crops.

At the same time, the summer monsoon can cause tremendous devastation. Cyclones are common and deadly companions to the summer monsoon. (These storms are called hurricanes in North America.) Cyclones destroy farmland, wipe out villages, and cause massive flooding. Their fury is legendary. As you read in the Disasters! feature on pages 578–579, the 1970 cyclone that struck the southern coast of Bangladesh killed more than 300,000 people. It left hundreds of thousands homeless and destitute. In fact, because of the monsoons, Bangladesh was the site of some of the worst natural disasters of the 20th century.

The droughts that come with the dry winter monsoon bring their own problems. Lush landscapes can become arid wastelands almost overnight. These droughts—along with storms and floods—cause havoc for the people and economies of South Asia. **A**

ECONOMIC IMPACT The climate of South Asia makes agriculture difficult. Crops often disappear under summer floodwaters or wither in drought-parched soil. With so many mouths to feed, the countries of South Asia must buy what they cannot grow, and the threat of famine is ever present. But the people suffer from more than just crop failures. They may also lose their homes and families to weather-related catastrophes. Most people are too poor to rebuild their homes and lives, and



Using the Atlas

A Use the maps on page 545 and this page. What country of South Asia seems least affected by the summer and winter monsoons?

A. Answer
Pakistan

governments often lack the necessary resources to provide significant help. However, the people of South Asia have taken some steps to prevent or lessen damage. These include building houses on stilts, erecting concrete cyclone shelters, and building dams to control floodwaters.

The region also receives international aid. Other governments and international agencies have lent billions of dollars to South Asian nations. But often this aid does not go far because of the frequency of disasters. Also, the aid burdens these countries with heavy debts. **B**

POLITICAL TENSIONS Conditions caused by the weather patterns in South Asia have also caused political disputes. For instance, to bring water to the city of Kolkata, India constructed the Farakka dam across the Ganges at a point just before it enters Bangladesh. (See map on page 545.) Because India and Bangladesh share the Ganges, the dam left little water for drinking and irrigation in southern Bangladesh. Many Bangladeshi farmers lost farmland, and some illegally fled to India.

The two countries finally settled the dispute in 1997, when they signed a treaty giving each country specific water rights to the Ganges. Still, the dispute provided a graphic example of the role weather plays in both the politics and economics of South Asia. In the Case Study that follows, you will read about another political conflict—a territorial dispute between India and Pakistan.

Image not available for electronic use. Please refer to the image in the textbook



REGION Dams on the Ganges divert water to irrigate Indian farms. But the dams decrease water downstream in Bangladesh.

Why might such a result cause conflict between India and Bangladesh?



Seeing Patterns

B How might the governments of South Asia use foreign aid?



Assessment

1 Places & Terms

Explain the importance of each of the following terms and places.

- summer monsoon
- winter monsoon

2 Taking Notes

PLACE Review the notes you took for this section.

	Causes	Effects
Issue 2: Extreme Weather		

- What are cyclones called in the United States?
- What kind of devastation can cyclones cause?

3 Main Ideas

- Why do some people mistake monsoons, which are actually wind systems, for rainstorms?
- What problems are associated with the winter monsoon?
- What are some of the economic effects of monsoons?

4 Geographic Thinking

Identifying and Solving Problems How have attempts to address the challenges of South Asian weather patterns sometimes resulted in political disputes? How might disputes be avoided in the future?

Think about:

- the importance of water to the region
- who owns rivers



ASKING GEOGRAPHIC QUESTIONS Do research on the issue of water distribution in one South Asian country. Then, come up with a geographic question about the issue, perhaps one considering how geography can be used to improve the situation. Answer the question and write a **newspaper article** about the issue.

CASE STUDY

TERRITORIAL DISPUTE

How can India and Pakistan resolve their dispute over Kashmir?



Snowcapped mountains tower over a village in the valley of the Suru River in the disputed territory of Kashmir.

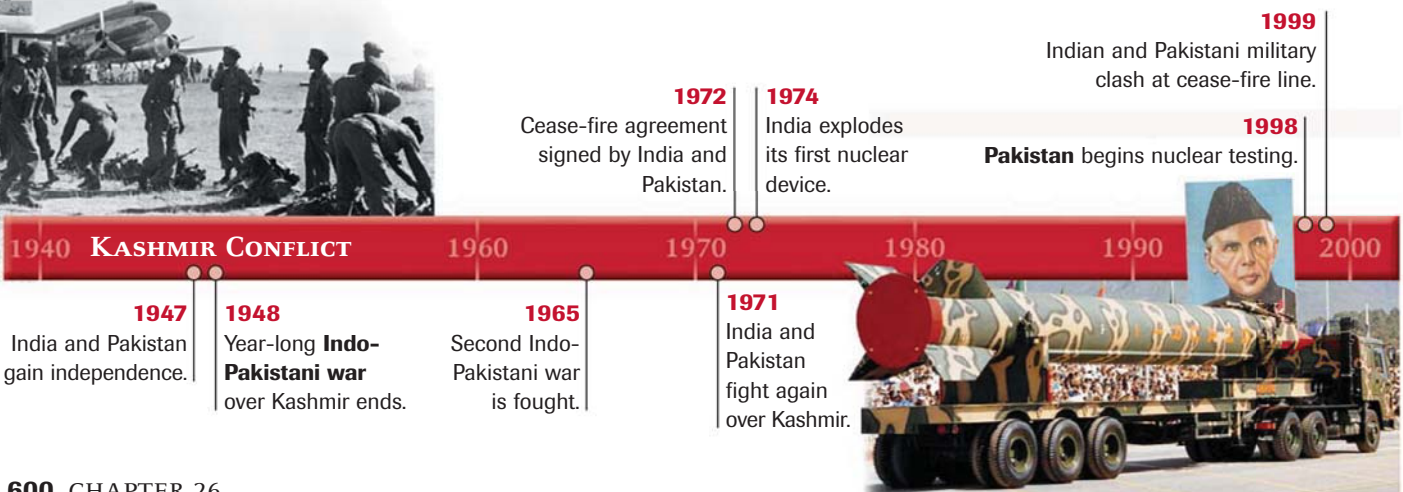
Kashmir is a territory of towering mountains, dense forests, and fertile river valleys. It is strategically located at the foot of the Himalayas and is surrounded by India, Pakistan, and China. Since 1947, India and Pakistan have fought to control this territory of 12 million people. The territorial dispute has caused three Indo-Pakistani wars and, in just the last decade alone, cost up to 75,000 lives. It poses a threat to the political stability of South Asia and the economic well-being of the countries involved. And, because both India and Pakistan have nuclear weapons, the Kashmir conflict has the potential to lead to nuclear war.

A Controversy Over Territory

In 1947, the British government formally ended its colonial rule over the Indian subcontinent after 90 years. It partitioned, or divided, the subcontinent into two independent countries. India had a predominantly Hindu population. Pakistan was mostly Muslim. Britain gave each

Indian state the choice of joining either country or remaining independent. Muslim states joined with Pakistan, while Hindu states remained part of India. Kashmir, however, had a unique problem.

POLITICS AND RELIGION Kashmir was mainly Muslim, but its leader, the Maharajah of Kashmir, was a Hindu. Faced with a difficult decision, the maharajah tried to keep Kashmir independent. But the plan failed. The maharajah then ceded Kashmir to India in 1947, but Pakistani soldiers invaded Kashmir. After a year's fighting, India still controlled much of the territory. Since then, India and Pakistan have fought two



more wars, in 1965 and in 1971. Although a cease-fire was signed in 1972, the situation remains unresolved. As you can see on the map below, India and Pakistan each control part of the disputed territory. Even China controls a portion, having seized a remote northern mountain area in 1962.

A QUESTION OF ECONOMICS There's more to this conflict than just politics and religion. The Indus River flows through Kashmir, and many of its tributaries originate in the territory. The Indus is a critical source of drinking and irrigation water for all of Pakistan. As a result, the Pakistanis are unwilling to let India control such a vital resource. Kashmir has become a strategic prize that neither country is willing to give up.

A Nuclear Nightmare

SEE

PRIMARY SOURCE B

In 1998, India and Pakistan each tested nuclear weapons. The rest of the world was horrified by the thought that the 50-year-old dispute over Kashmir might finally end with vast areas of South Asia destroyed by nuclear bombs. After the tests, both nations vowed to seek a political solution to the conflict. But the possibility of a nuclear war has made the dispute even more dangerous. Despite frequent cease-fires, the border clashes have continued. Also, Pakistan is supporting Muslims in Kashmir who have been fighting Indian rule since the late 1980s.

SEE

PRIMARY SOURCE A

A QUESTION OF PRIORITIES Both India and Pakistan have large populations and widespread poverty. The money that they have spent on troops, arms, and nuclear programs might have been used to educate millions of children and to address many social problems.

SEE

PRIMARY SOURCE E

Resolving the status of Kashmir would offer the people of India, Pakistan, and Kashmir the peace they need to begin improving the quality of their lives. It would also reduce political tensions in the region. The Case Study Project and primary sources that follow will help you to explore the Kashmir question.



CASE STUDY

PROJECT

Primary sources A, B, C, D, and E offer different views of the dispute over Kashmir. Use these resources along with your own research to write a newspaper feature on how the people of Kashmir, India, and Pakistan have suffered in this conflict. Include their own words.



RESEARCH LINKS
CLASSZONE.COM

A Newspaper Feature

Suggested Steps

1. Divide into small groups representing ordinary Kashmiris (such as women, farmers, and rebel soldiers), as well as Indian and Pakistani officials or soldiers. Then begin gathering personal accounts about the conflict from newspapers, magazines, and Internet sites.
2. Search for visuals—illustrations, maps, photographs, political cartoons, charts, and graphs—that help illustrate the points you are making.
3. When everyone in the class has collected enough material, work together to plan the feature story.

4. When you have finished planning, prepare the feature.

5. Share your project with other groups at your school or in your community.

Materials and Supplies

- Reference books, newspapers, and magazines
- Computer with Internet access and printer

PRIMARY SOURCE A

Government Document *The Ministry of Foreign Affairs of Pakistan published this policy statement on Kashmir in 1999, after a visit to the United States by the Pakistani prime minister, Nawaz Sharif.*

In order to find an early and just solution to the 50-year old . . . Kashmir dispute, Pakistan has welcomed offers of good offices and third-party mediation. It has encouraged the international community to play an active role and facilitate the peaceful settlement of disputes between Pakistan and India.

While Pakistan is committed to a peaceful settlement of the Jammu and Kashmir dispute, adequate measures have been taken to safeguard the country's territorial integrity and national sovereignty. Pakistan will continue to extend full political, diplomatic and moral support to the legitimate Kashmiri struggle for their right to self-determination as enshrined in the relevant United Nations resolutions. In the context of the bilateral dialogue, it calls on India to translate its commitments into reality.

PRIMARY SOURCE B

Government Policy Declaration *At a state dinner in India for President Bill Clinton in March 2000, Indian President Kocheril Raman Narayanan warned that India would fight to protect its interests in Kashmir.*

It has been suggested that the Indian subcontinent is the most dangerous place in the world today, and Kashmir is a nuclear flashpoint. These alarmist descriptions will only encourage those who want to break the peace and indulge in terrorism and violence. The danger is not from us who have declared solemnly that we will not be the first to use nuclear weapons, but rather it is from those who refuse to make any such commitment.

We are publicly committed to the abolition of nuclear weapons together with other nuclear powers who possess them in awesome stockpiles capable of destroying the world many times over. India does not threaten any other country and will not engage in an arms race, but India will maintain a minimum credible nuclear deterrent—no more, no less—for her own security.

PRIMARY SOURCE C

Political Speech Mehbooba Mufti is a leader of the Jammu and Kashmir People's Democratic Party, a political party in Kashmir. In 1999, she spoke about the conflict and her hope that the dispute will be peacefully resolved.

Everything has changed, mostly for the worse. Take just the physical destruction of whatever we had, the schools, the colleges, the roads, the bridges, the buildings, everything we had for the last 50 years, that has been more or less destroyed. We used to have a very good education system, with very good teachers, but now that has gone. . . .

I think Kashmir finally has to become a bridge between India and Pakistan. Finally. Maybe not today, maybe not tomorrow, but after some years, it is finally going to become a bridge. Have an open relationship. It's a dream!

PRIMARY SOURCE D

Personal Story Kashmiri native Mohammed Aziz lives in Kargil, a city on the border between the Pakistani- and Indian-controlled regions of Kashmir. In 1999, he described how the conflict had affected his hometown.

We never know when the shell will come. . . . For the last three years, no one sleeps well there. Whoever flees leaves everything there. He takes nothing with him. The cattle are left on their own. Nobody cares for them, so we don't know what happens to them. . . .

Before, tourism was OK. Before the shelling there used to be 25 hotels, but now I don't think any hotel is open. We can't calculate the damage. . . .

The children's education is stopped, and whoever is ill dies because there is no medication nor anyone to care for them. Whoever resides in Kargil, does so at his own risk.

PRIMARY SOURCE E

Political Cartoon This 1998 political cartoon shows how the development of nuclear weapons by India and Pakistan has caused economic suffering among the people of both countries.

**PROJECT Checklist****Have I . . .**

- ✓ fully researched my topic?
- ✓ located primary source quotations to tell my story?
- ✓ taken into account both sides of the issue?
- ✓ arranged the quotations so that they tell a coherent, interesting story?
- ✓ created informative visuals that make my story clear and interesting?

VISUAL SUMMARY TODAY'S ISSUES IN SOUTH ASIA

Economics

Population Explosion

- Though only about one-third the size of the United States, India has over three times as many people.
- India's government has taken steps to control population growth but has had only mixed success.
- Many parents continue to have large numbers of children because of India's high infant mortality rates, the extra income brought in by children, and the need for caregivers as parents age.



Environment

Living with Extreme Weather

- The physical damage caused by extreme weather patterns in South Asia, such as cyclones, can be devastating to the region's people.
- The impact of extreme weather is not limited to physical damage. These forces can also disrupt the economy and cause serious political tensions.



Government

Case Study: Territorial Dispute

- Kashmir is a strategically located territory, surrounded by Pakistan, India, and China.
- India and Pakistan have fought three wars over this territory since 1947.
- Money spent by India and Pakistan for armaments, including nuclear weapons, has not been available to help improve the lives of the people of these countries.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

1. basic necessities
2. illiteracy
3. summer monsoon
4. winter monsoon

B. Answer the questions about vocabulary in complete sentences.

5. Which winds stir up powerful storms in South Asia that release vast amounts of rain and cause severe flooding?
6. Which winds blow from the southwest across the Indian Ocean toward South Asia from June through September?
7. Food, shelter, and clothing are all examples of what?
8. Which winds blow from the northeast across the Himalayas from October through February?
9. What is the term for the inability to read or write?
10. What was the Indian government finding difficult to provide for its people?

Main Ideas

Population Growth (pp. 593–596)

1. Currently, about how many babies are born in India every day? Annually?
2. Why might the lack of basic necessities in a region concern demographers—people who study population?
3. Why might a high rate of infant mortality affect the size of families?
4. What percentage of the world's population is found in South Asia?
5. How would education play an important role in slowing population growth?

Living with Extreme Weather (pp. 597–599)

6. What are South Asia's two monsoon seasons? How do they differ?
7. When do these wind seasons occur?
8. What are some of the precautions that people in South Asia have taken to lessen the damage caused by cyclones?
9. What type of international aid have the countries of South Asia received?
10. What political tensions have resulted from the effects of extreme weather?

Case Study: Territorial Dispute over Kashmir (pp. 600–603)

11. Where is Kashmir located?
12. What countries have fought three wars over control of Kashmir?
13. When and why did the dispute over Kashmir begin?
14. Why are world leaders particularly concerned about the dispute?
15. What might happen if the dispute were resolved?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.

	<i>Causes</i>	<i>Effects</i>
<i>Issue 1: Population</i>		
<i>Issue 2: Extreme Weather</i>		

- Why might parents in India want a large family?
- Why is Kashmir economically important to Pakistan?

2. Geographic Thinking

- REGION** How is the religious make-up of Kashmir related to conflict over the territory?
- MOVEMENT** Why might people in India and the other heavily populated countries in South Asia move to other parts of the world?

3. Identifying Themes

Why is Bangladesh especially vulnerable to the cyclones that occasionally devastate the region? Which of the five themes applies to this situation?

4. Making Comparisons

Why might India and Bangladesh fear the weather that can arrive during the summer?

5. Determining Cause and Effect

How might the dispute over Kashmir affect the social and educational programs in the region?

Additional Test Practice,
pp. S1–S37



TEST PRACTICE
CLASSZONE.COM

Geographic Skills: Interpreting Graphs

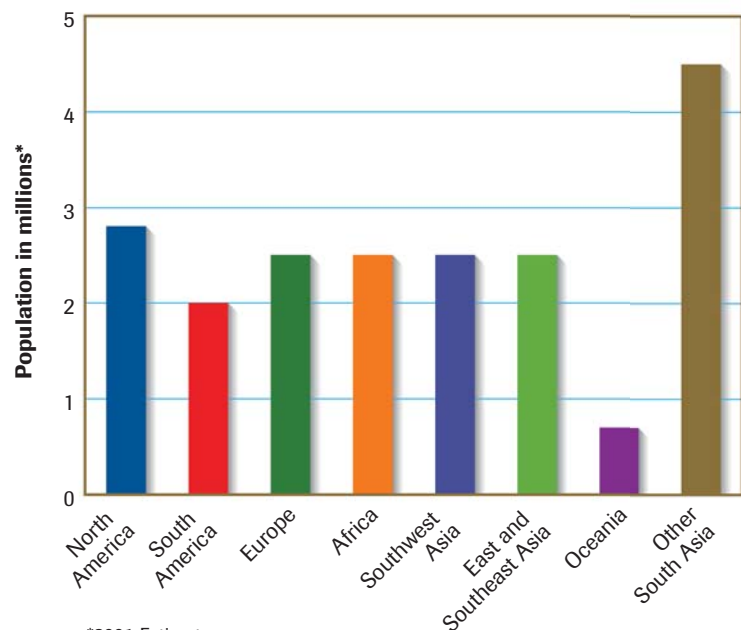
Ethnic Indian Population Outside of India

Use the graph at right to answer the following questions.

- PLACE** On what continent outside of South Asia do most Indians live?
- PLACE** About how many Indians live in South America?
- LOCATION** Why do you think most ethnic Indians living outside of India live in South Asian countries?



Carry out research on people from India who live in the United States. Create a table of the five cities with the largest populations of people from India.



*2001 Estimates

SOURCE: Global Organization of People of Indian Origin



INTERNET ACTIVITY

Use the links at classzone.com to continue research on population growth in India. Focus on how the limited availability of basic necessities has affected the daily life of the country's people.

Creating a Multimedia Presentation Use your research to create an electronic presentation. Combine charts, maps, images, objects, and written accounts to provide your audience with a picture of daily life in India.



East Asia

**PREVIEW: TODAY'S
ISSUES IN EAST ASIA**

UNIT ATLAS

Chapter 27
PHYSICAL GEOGRAPHY
A Rugged Terrain

Chapter 28
HUMAN GEOGRAPHY
**Shared Cultural
Traditions**

Chapter 29
TODAY'S ISSUES
East Asia

CASE STUDY

**POPULATION AND
THE QUALITY
OF LIFE**

East Asia is made up of a vast mainland area and a number of important islands off the eastern coast.



PLACE The Forbidden City is a walled enclosure in Beijing, China. Inside is a complex of palaces where 24 emperors ruled. Once closed to the public, it is now a museum and tourist attraction.

GeoData

PLACE East Asia includes huge mountains and large deserts.

LOCATION The region is called “East Asia” because it is on the eastern edge of the Asian continent, bordered by the Pacific Ocean to the east, Russia to the north, and the countries of south and southeast Asia to the south.

REGION This area is bordered by a number of bodies of water, including the Pacific Ocean, the Sea of Japan, the East China Sea, and the South China Sea.

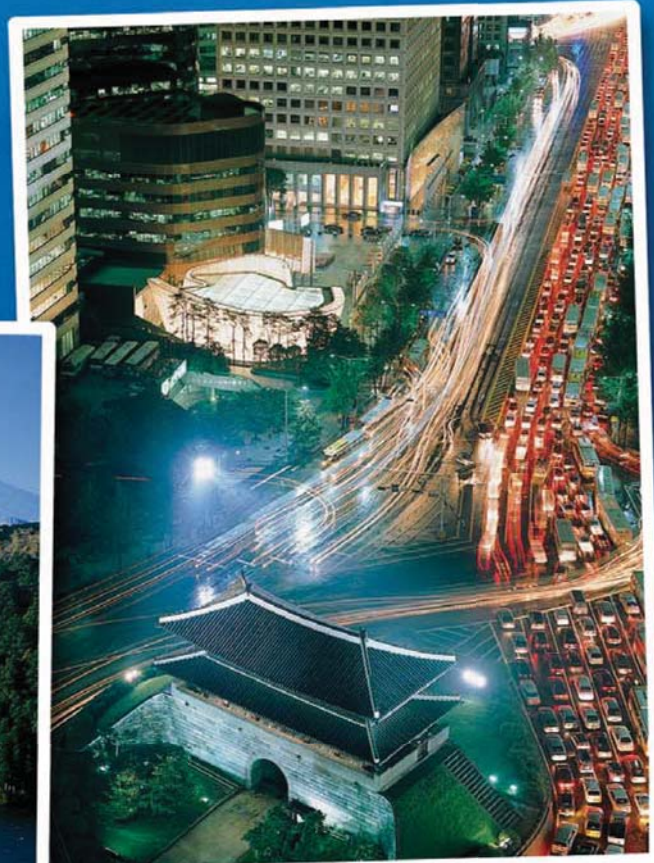
For more information on East Asia . . .



RESEARCH LINKS
CLASSZONE.COM



LOCATION Mount Fuji, the highest peak in Japan at 12,388 feet, is a volcano that last erupted in 1707. It is considered a sacred mountain.



HUMAN-ENVIRONMENT INTERACTION

The traditional pagoda, or temple, sits amidst the bustle of economic activity in the city center of Seoul, South Korea.



Today's Issues in East Asia

Today, East Asia faces the issues previewed here. As you read Chapters 27 and 28, you will learn helpful background information. You will study the issues themselves in Chapter 29.

In a small group, answer the questions below. Then participate in a class discussion of your answers.

Exploring the Issues

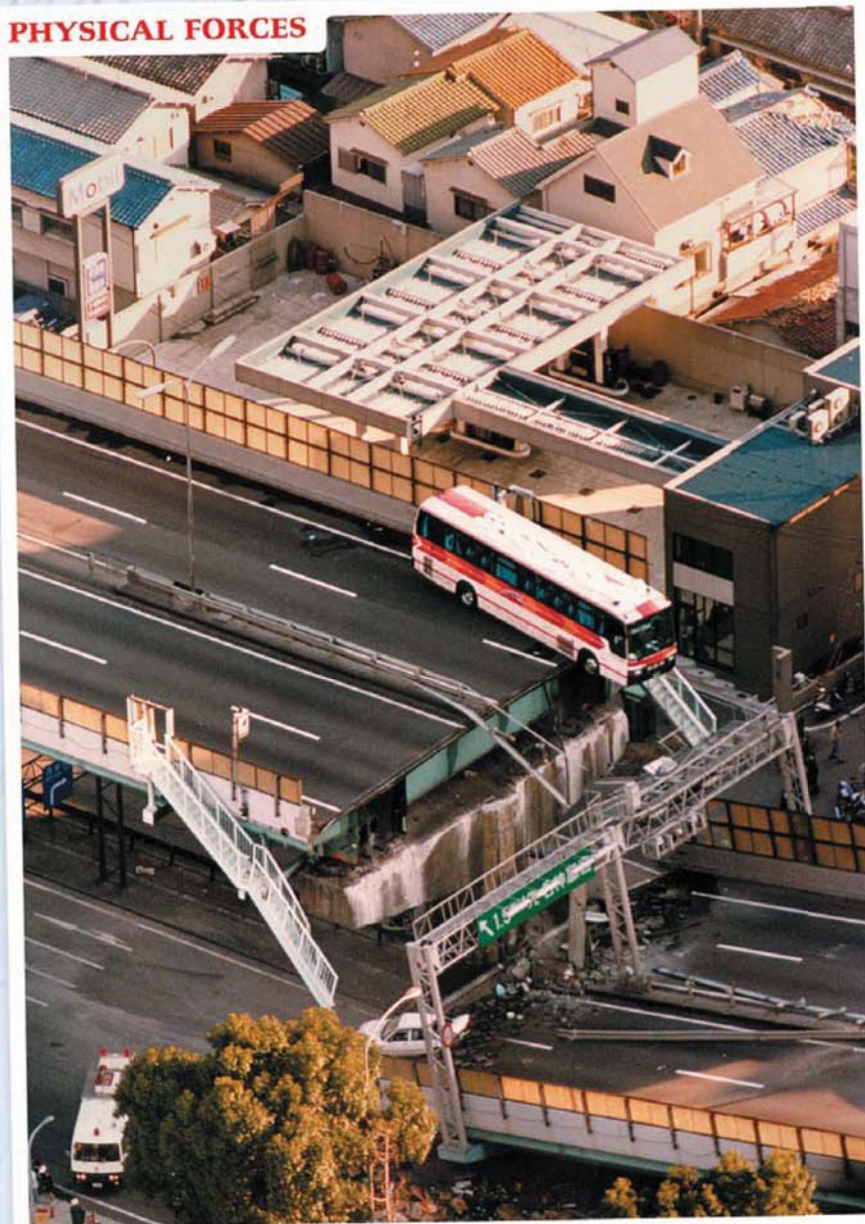
1. **PHYSICAL FORCES**

What might be some of the effects of earthquakes and volcanoes on daily life in the region? How might the effects be similar or different in an urban and a rural area?

2. **TRADE** What are some items you or your family have bought that were made in East Asia?

3. **POPULATION** Parts of East Asia are very crowded. What might be some of the advantages and challenges of living around so many people?

PHYSICAL FORCES



How might people in East Asia prepare for earthquakes and volcanoes?

A bus teeters on the edge of a highway torn apart by an earthquake in Kobe, Japan, in 1995.

For more on these issues in East Asia . . .



CURRENT EVENTS
CLASSZONE.COM

TRADE



What are some benefits of global trade?

Hong Kong is a thriving center of trade and economic activity. Once a colony of Britain, it is now a part of China. Its wealth and trading expertise are helping China compete with leading industrial nations.

CASE STUDY

What pressures does population put on the environment?

Subway attendants in Tokyo push people into crowded subway trains. Japan has a large number of people living on a small amount of land.

POPULATION



Unit ATLAS



Patterns of Physical Geography

Use the Unit Atlas to add to your knowledge of East Asia. As you look at the maps and charts, notice geographic patterns and specific details about the region. For example, the charts on pages 610–611 give details about the rivers and mountains of East Asia.

After studying the pictures, graphs, and physical map on these two pages, jot down in your notebook the answers to the following questions.

Making Comparisons

1. What three main river systems run from west to east in China?
2. Which of the bodies of water surrounding Japan is the largest?
3. Compare East Asia's size and population to those of the United States. Based on that data, how might the population densities of the two compare?

Comparing Data

Landmass

East Asia

4,550,811 sq mi

Continental United States

3,165,630 sq mi

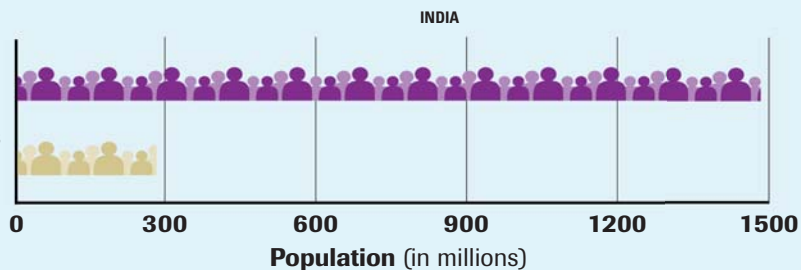


Comparing Data

Population

East Asia
1,485,103,000

United States
281,422,000



Rivers

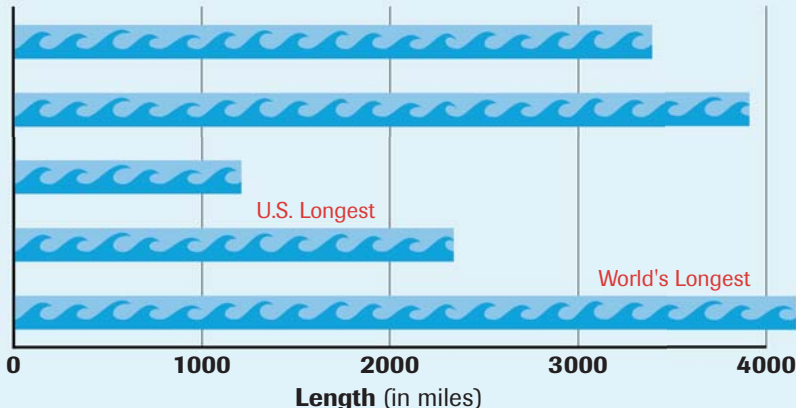
Huang He
3,395 miles

Chang Jiang
3,915 miles

Xi Jiang
1,216 miles

Mississippi
2,357 miles

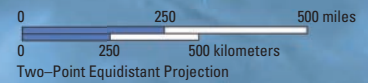
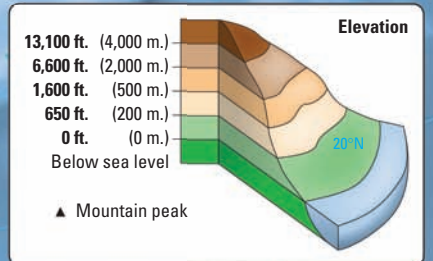
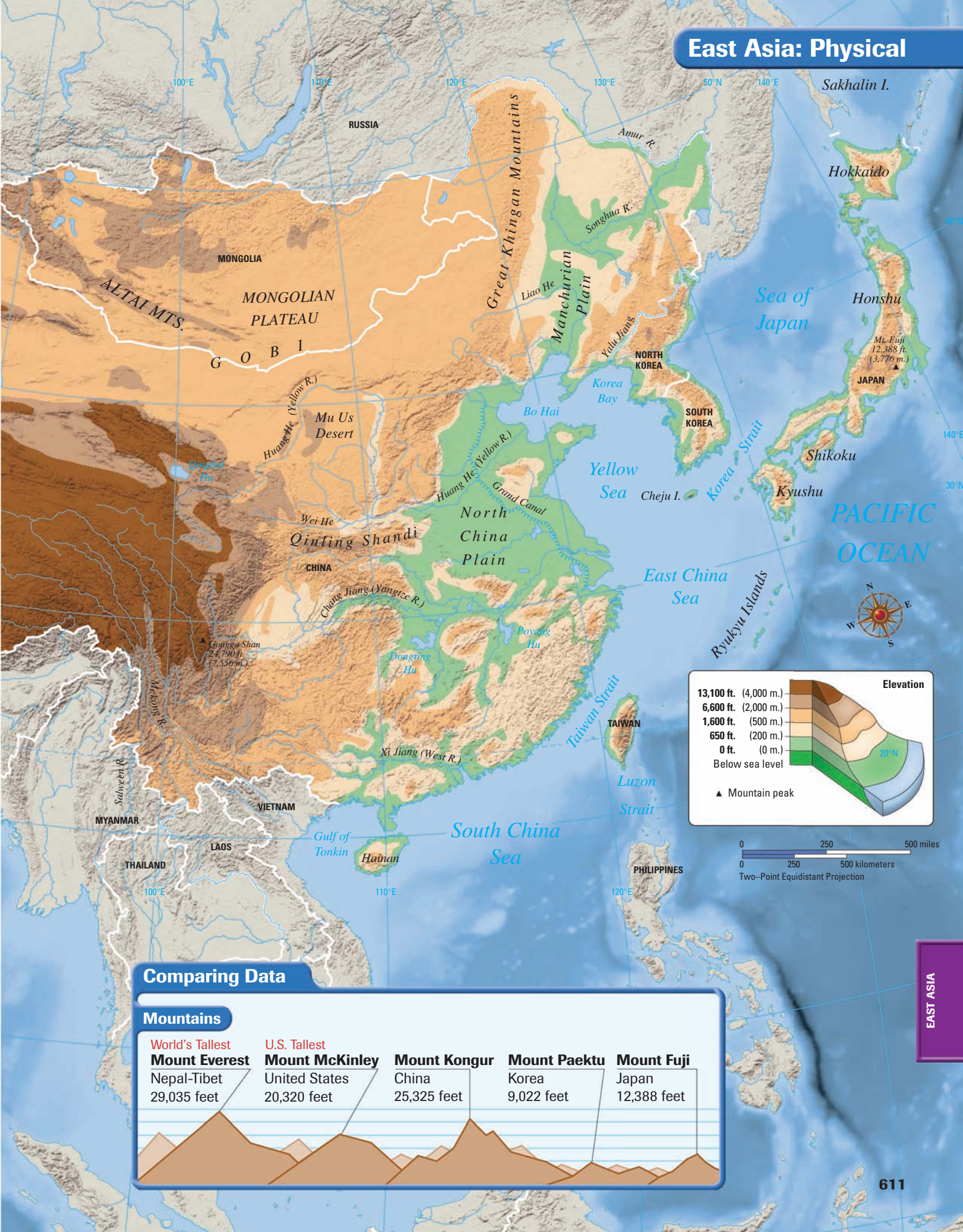
Nile
4,160 miles



For updated statistics on East Asia . . .



East Asia: Physical



Comparing Data

Mountains

World's Tallest	U.S. Tallest			
Mount Everest	Mount McKinley	Mount Kongur	Mount Paektu	Mount Fuji
Nepal-Tibet	United States	China	Korea	Japan
29,035 feet	20,320 feet	25,325 feet	9,022 feet	12,388 feet



Unit ATLAS



Patterns of Human Geography

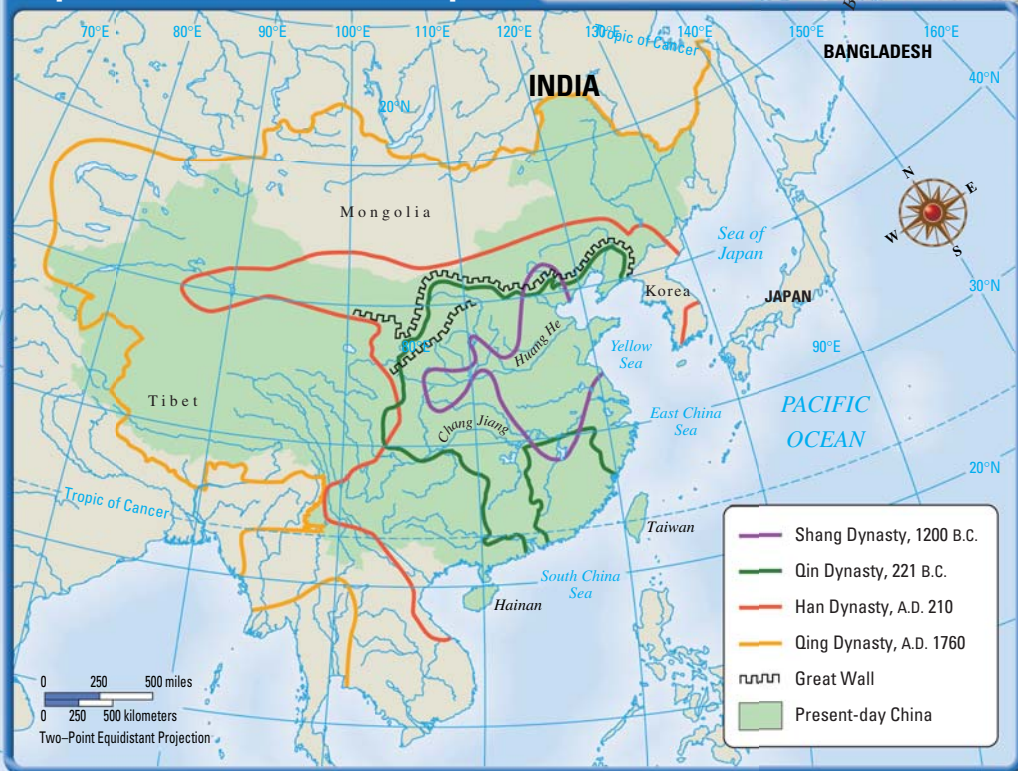
Over the course of centuries, the political map of East Asia has changed. The Chinese empire expanded over thousands of years, absorbing much of the region. Study the historical and political maps of East Asia on these two pages. In your notebook, answer these questions.

Making Comparisons

1. What differences do you notice when you compare the historical map of the Chinese empire to the map of East Asia today?
2. What are some of the similarities between the historical map and the contemporary map of East Asia?
3. What countries in the region used to be a part of the Chinese empire but are now independent? Which country in the region was never a part of the empire?



Expansion of the Chinese Empire



East Asia: Political



Unit ATLAS



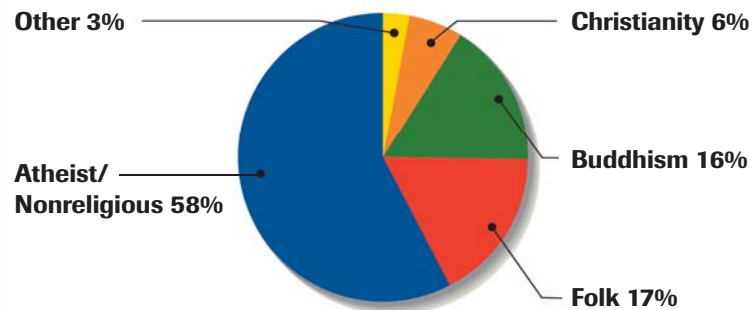
Regional Patterns

These two pages contain a graph and three thematic maps. The graph shows the religions of East Asia. The maps show other important features of East Asia: its vegetation, languages, and population density. After studying these two pages, answer the questions below in your notebook.

Making Comparisons

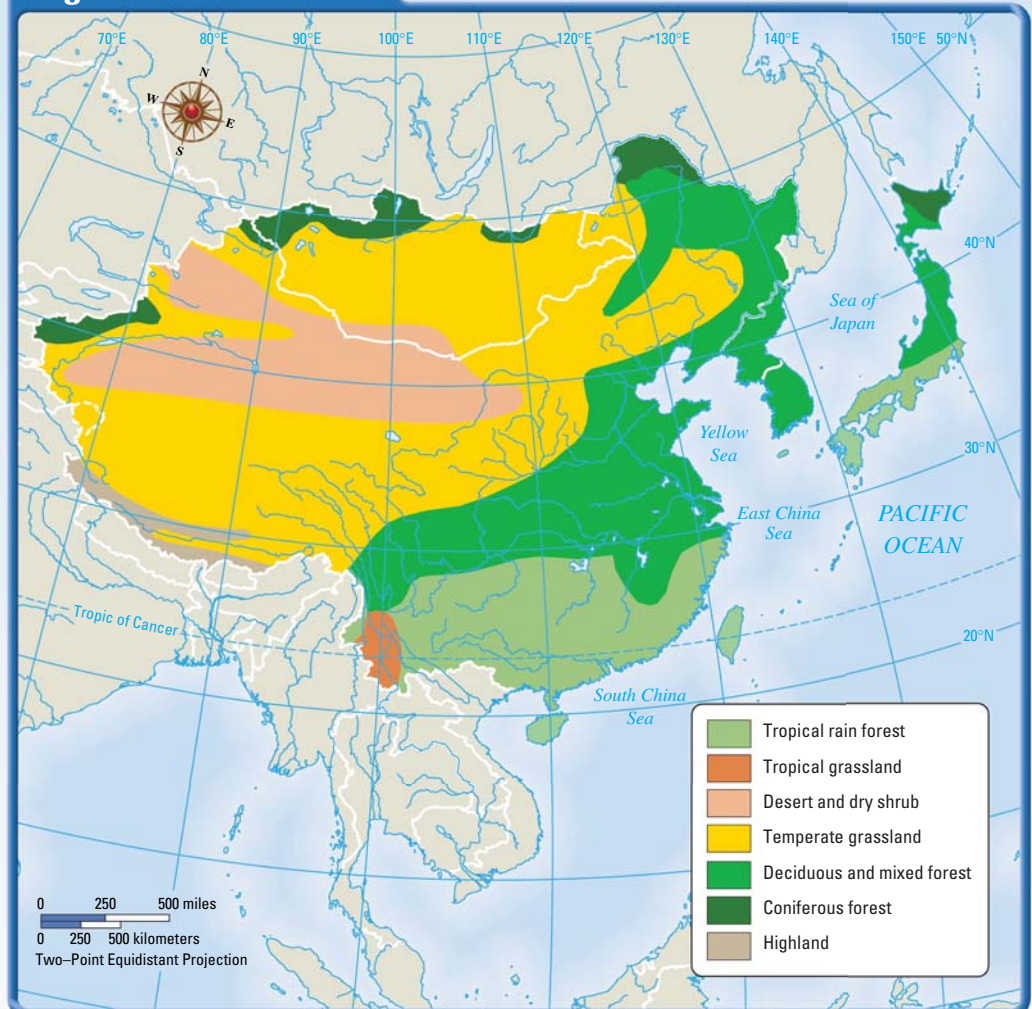
1. Where is most of the population located in China? Why might people have settled in these areas rather than in other areas?
2. Which is the smallest country in East Asia?
3. What is the vegetation in much of southern China, Taiwan, southern Korea, and southern Japan? How does it differ from the vegetation in Mongolia?

Religions of East Asia



SOURCE: *Britannica Book of the Year 2000*

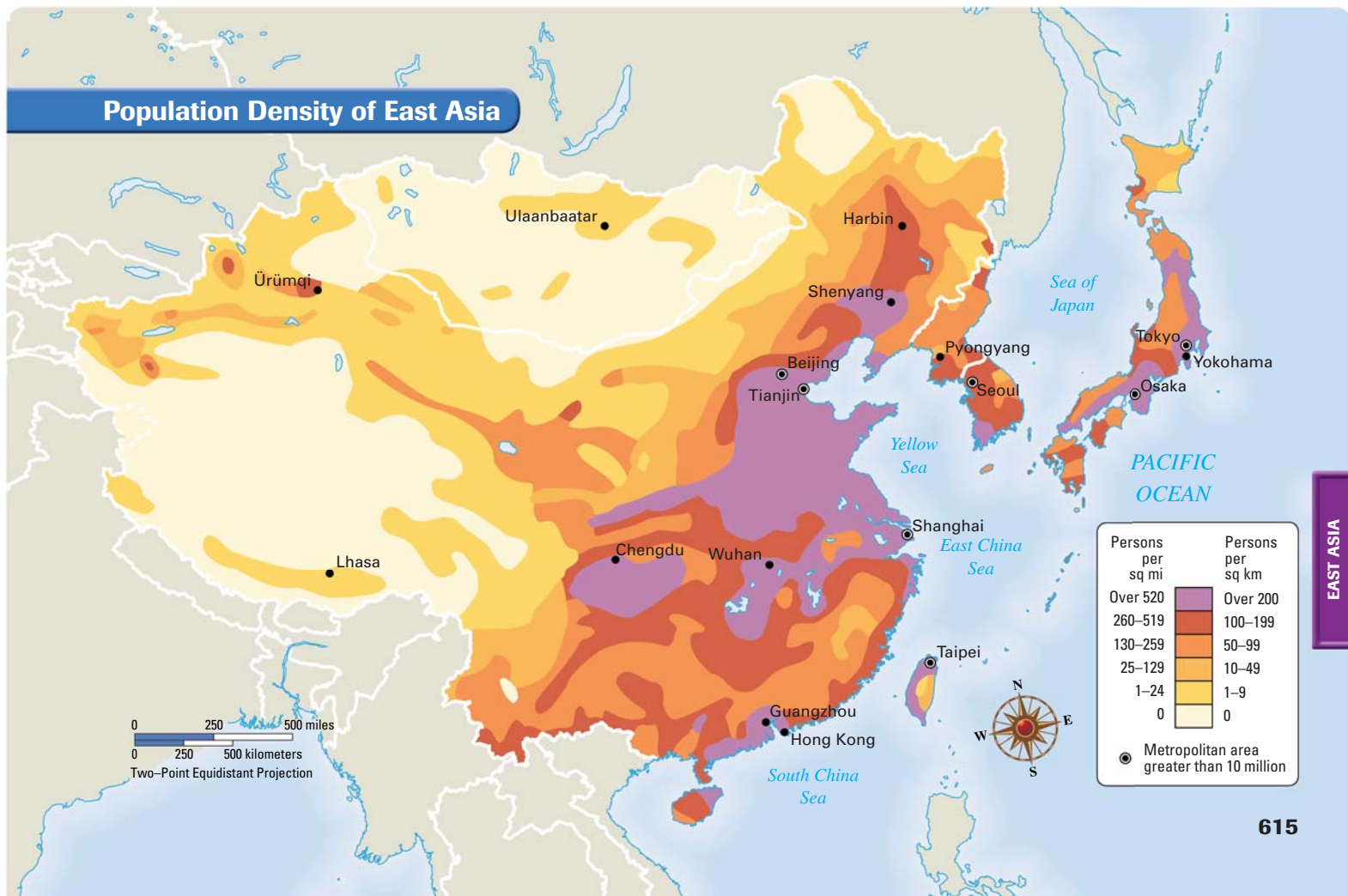
Vegetation of East Asia



Languages of East Asia



Population Density of East Asia





Regional Data File

Country Flag	Country/ Capital	Population (2000)	Life Expectancy (years) (2000)	Birthrate (per 1,000 pop.) (2000)	Infant Mortality (per 1,000 live births) (2000)
	China* Beijing	1,264,536,000	71	15	31.4
	Japan Tokyo	126,876,000	80	9	3.5
	Mongolia Ulaanbaatar	2,472,000	63	20	34.1
	North Korea Pyongyang	21,688,000	70	21	26.0
	South Korea Seoul	47,275,000	74	14	11.0
	Taiwan Taipei	22,256,000	75	13	6.6
	United States Washington, D.C.	281,422,000	77	15	7.0

Study the charts on the countries of East Asia. In your notebook, answer these questions.

Making Comparisons

- Which countries have the most people? Locate them on the map. Are they also the largest countries in terms of total area?
- In which part of the region are the highest elevations located? What might this suggest about settlement patterns in the region?

Sources:

Europa World Year Book 2000
Human Development Report 2000,
United Nations
International Data Base, 2000, U.S.
Census Bureau online
Merriam-Webster's Geographical
Dictionary, 1997
Statesman's Yearbook 2001
2000 World Population Data Sheet,
Population Reference Bureau online
U.S. Census Bureau, 2000 Census
WHO Estimates of Health Personnel,
World Health Organization online
World Almanac and Book of Facts 2001
World Education Report 2000, UNESCO
online
World Factbook 2000, CIA online
N/A = not available

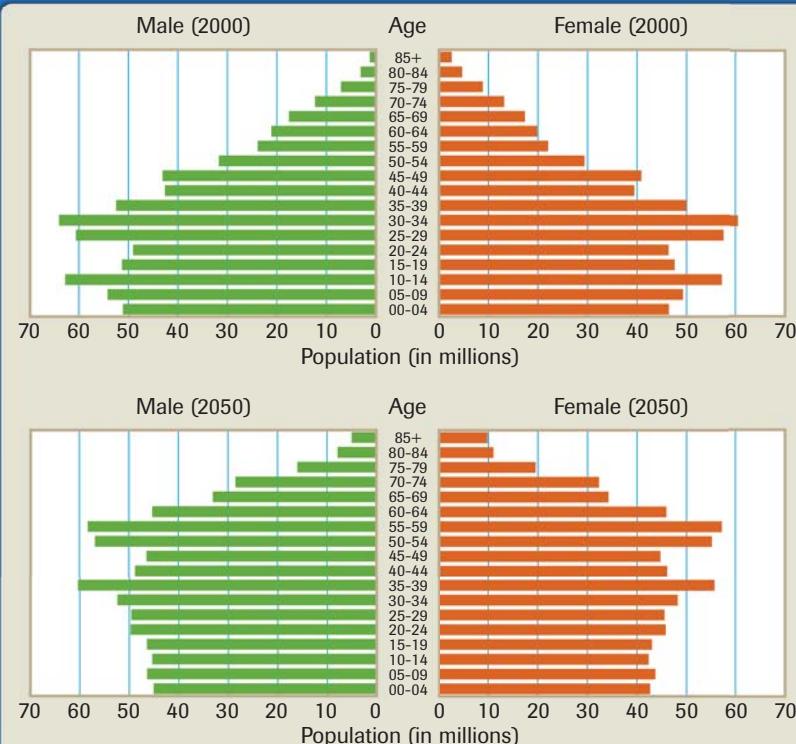
Notes:

- * Figures do not include Hong Kong or Macao, both Special Administrative Regions.
- ^a A comparison of the prices of the same items in different countries is used to figure these data.
- ^b Includes land and water, when figures are available.

For updated statistics on
East Asia . . .



China Population Pyramids, 2000 and 2050

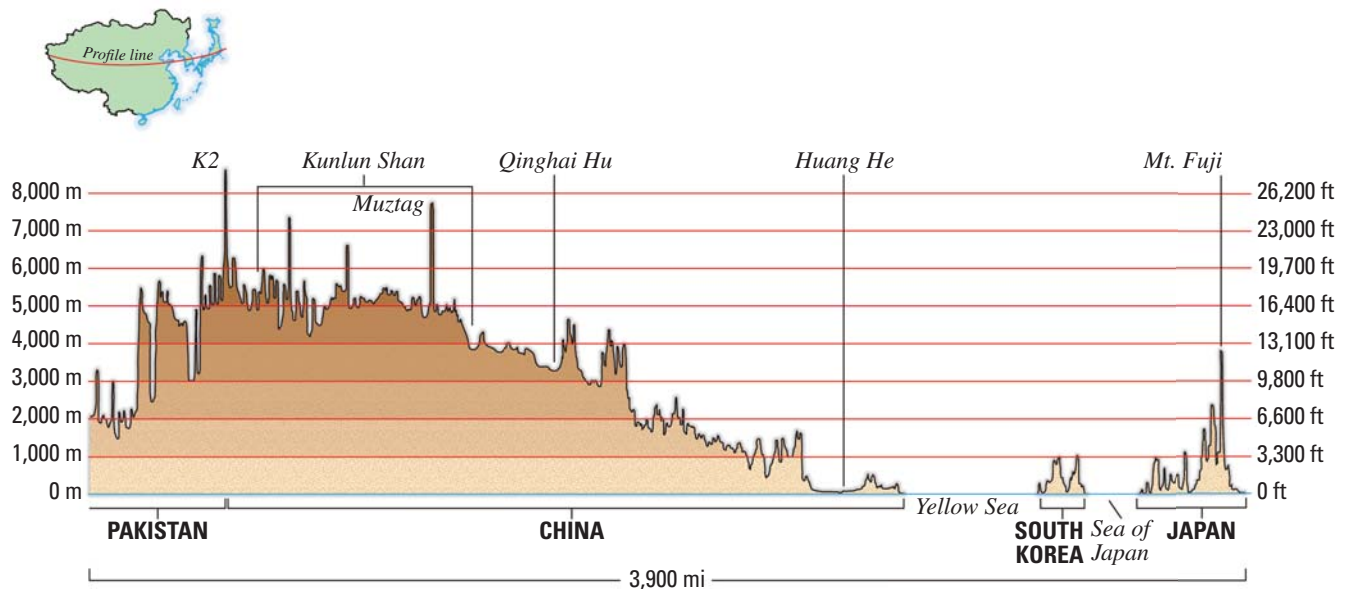


SOURCE: U.S. Census Bureau, International Data Base

Doctors (per 100,000 pop.) (1995–1998)	GDP ^a (billions \$US) (1998–1999)	Import/Export ^a (billions \$US) (1998–1999)	Literacy Rate (percentage) (1998)	Televisions (per 1,000 pop.) (1998)	Passenger Cars (per 1,000 pop.) (1996–1997)	Total Area ^b (square miles)
162	4,800.0	165.8 / 194.9	82	205	4	3,704,427
193	2,950.0	275.4 / 413.0	99	684	367	143,619
243	6.1	0.472 / 0.317	83	45	8	604,247
N/A	22.6	0.859 / 0.680	99	48	N/A	46,609
127	625.7	104.4 / 144.0	98	334	165	38,022
N/A	357.0	91.5 / 121.6	94	395	198	13,887
251	9,255.0	820.8 / 663.0	97	847	489	3,787,319



Profile of East Asia



Pakistan, though not a part of the region, is shown for purpose of comparison.

PHYSICAL GEOGRAPHY OF EAST ASIA

A Rugged Terrain

SECTION 1

Landforms and
Resources

SECTION 2

Climate and
Vegetation

SECTION 3

Human–Environment
Interaction

The Great Wall is an ancient line of fortifications across northern China. Its oldest sections were built in the third century B.C. by hundreds of thousands of laborers. Over the years, it proved ineffective against invaders.

GeoFocus

How does physical geography influence the lives of East Asians?

Taking Notes Copy the graphic organizer below into your notebook. Use it to record information about the physical geography of East Asia.

Landforms	
Resources	
Climate and Vegetation	
Human–Environment Interaction	



Landforms and Resources

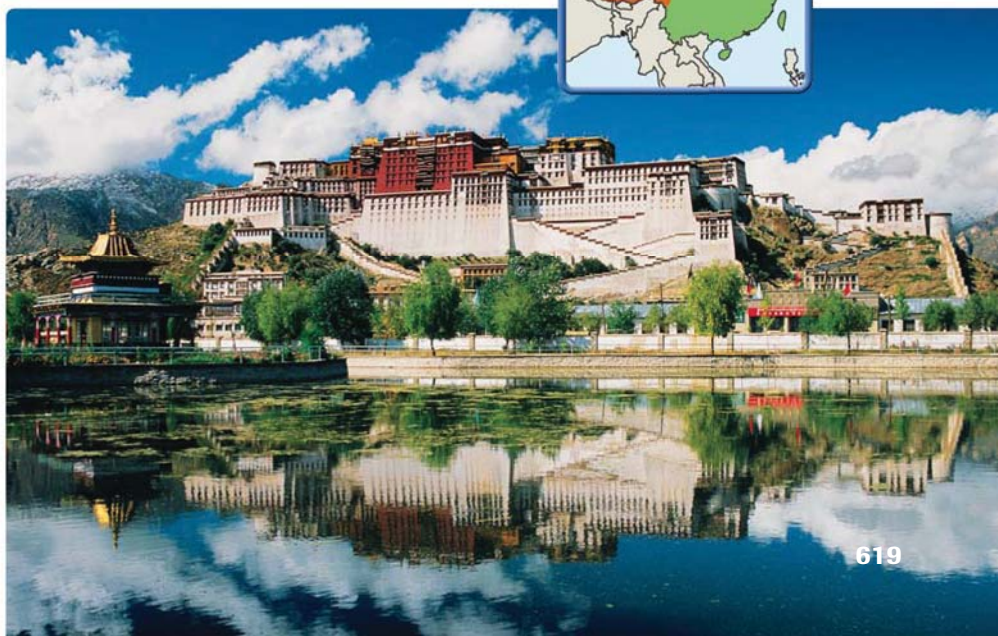
A HUMAN PERSPECTIVE Time and again in its early history, China was attacked by invaders from the steppes of Central Asia. The Chinese built and extended the Great Wall over many centuries in an attempt to keep out such invaders from Mongolia. From the Yellow Sea to the Gobi Desert, the wall twisted for thousands of miles across China. The wall was built by hundreds of thousands of peasant workers. Many died from the backbreaking labor or the severe weather. The Great Wall remains one of the largest building feats in history—partly because it had to cross mile after mile of China’s difficult terrain.

Landforms: Mountains and Plateaus

East Asia stretches from the western provinces of China to the eastern coast of Japan. Mongolia, Taiwan, North Korea, and South Korea are the other countries in the region. East Asia includes high mountains, vast deserts, cold climates, and Pacific waters. The mostly rugged terrain was formed by the collision of tectonic plates. One result of these natural barriers was to limit people’s movement and increase their isolation.

MOUNTAIN RANGES OF THE REGION High mountains in the region limited contact between people living in China and in other parts of Asia. The world’s highest mountains are located on the western edge of East Asia in southwestern and northwestern China and western Mongolia. The **Kunlun Mountains**, which are located in the west of China, are the source of two of China’s great rivers, the Huang He (Yellow) and the Chang Jiang (Yangtze). In southeastern and east central China, the **Qinling Shandi Mountains** divide the northern part of China from the south.

PLATEAUS AND PLAINS The landscape of East Asia is among the roughest in the world. The mountain areas in the western part of the region restricted movement and were underpopulated. Although few flat surfaces exist, the region has some low basins and barren deserts. These include the Plateau of Tibet (also known as the Xizang Plateau), the Tarim Pendi Basin in western China, and the Taklimakan Desert in western China. All these areas are sparsely populated.



Main Ideas

- East Asia has a huge mainland area that includes rugged terrain.
- East Asia has a number of important islands off its eastern coast.

Places & Terms

Kunlun Mountains

Qinling Shandi Mountains

Huang He

Chang Jiang

Xi Jiang

CONNECT TO THE ISSUES

PHYSICAL FORCES East Asia’s rough terrain and unevenly distributed resources have influenced settlement and ways of life in the region.

PLACE The Potala Palace in Lhasa, Tibet, has many floors and more than 1,000 rooms. It was once the residence of the Dalai Lama and other monks and is now a major pilgrimage site.



Rivers and Mountains of East Asia



One of the largest deserts in the world—the Gobi—stretches from northwest China into Mongolia. It covers more than 500,000 square miles, which is larger than Texas and California combined. The Mongolian Plateau reaches into northeastern China. Northern China encompasses the Manchurian Plain and the North China Plain.

Peninsulas and Islands

East Asia includes a number of important peninsulas. Most of these form a part of China, although one peninsula contains independent nations. In addition, a number of islands off the coast of China include possessions of China as well as independent nations.

THE COAST OF CHINA The eastern coast of China features several peninsulas. These include the Shandong Peninsula, the Leizhou Peninsula, and the Macao Peninsula. Macao was owned by Portugal until 1999, when it returned to Chinese control. Because of its peninsulas, China has a long coastline that has allowed several major port cities, such as Shanghai, to develop. Bordering China on the east is the Korean Peninsula, which contains the two independent nations of North Korea and South Korea.

THE ISLANDS OF EAST ASIA An important feature of East Asia is the continental shelf—the submerged border of the continent—that extends east from China. A number of islands stand above this

continental shelf. The isolation of the islands has permitted them to develop in greater security and peace than parts of the mainland. Further, many of these islands have developed trading economies.

The islands off China include Hainan and part of Hong Kong. Long one of the major harbors in the world, Hong Kong (while originally a part of China) used to be a British colony. In 1997, Hong Kong once again came under the authority of mainland China.

The smaller nations of East Asia are located on islands and peninsulas. For example, Japan is an island nation with enormous economic power. Taiwan is a separate island that at one time belonged to mainland China—and is still claimed by China.

BACKGROUND

Japan is made up of four main islands and numerous smaller islands.


River Systems

China has three great rivers, which have been critical to the development of China's civilization. The rivers have helped to feed hundreds of millions of people because of the fields and crops they irrigate.

THE HUANG HE The **Huang He** (or Yellow River) of northern China starts in the Kunlun Mountains in the west. It winds east for about 3,000 miles before emptying into the Yellow Sea. Both the sea and the river get their names from the yellow silt, or particles of soil, that the river carries to its delta. Another name for the river is "China's Sorrow" because of the terrible floods that it has caused.

THE CHANG JIANG The **Chang Jiang** (or Yangtze River) is the longest river in all of Asia. The name Chang Jiang means "long river." It flows about 3,900 miles from Xizang (Tibet) to the East China Sea. The river has been a major trade route since ancient times. Even today, the Chang Jiang carries most of the goods shipped on China's waterways. But this river, too, floods frequently, causing a great deal of damage to nearby villages, as well as to the surrounding countryside. 

CONNECT TO THE ISSUES

 How might rivers facilitate trade?

THE XI JIANG The **Xi Jiang** (or West River) runs its course in the south of China. It flows eastward through southeast China and joins up with



MOVEMENT

Workers pull a boat ashore along the Huang He (Yellow River).

What are some of the uses that people might make of a river?



Resources of East Asia



the Pearl River (Zhu Jiang) to flow into the South China Sea. The Xi Jiang joins with three other rivers to form an estuary (where the river's current meets the ocean's tides) between Hong Kong and Macao. Important mineral resources are located in this river's valley.

OTHER RIVERS OF THE REGION The Yalu Jiang is another important river of the region. The Yalu, which is about 500 miles long, forms the border between North Korea and China. It is important historically because in 1950, Chinese troops entered the Korean War by crossing the river and attacking United Nations forces.

Resources of East Asia

Natural and mineral resources are unevenly distributed throughout East Asia. China, for example, is rich in natural resources. Mongolia and North Korea also have substantial mineral resources. However, Japan, South Korea, and Taiwan have limited natural resources. Even so, these latter three nations have grown into major economic powers. **B**

LAND AND FORESTS The number of mountains in East Asia means that the amount of land available for agriculture is limited. For this reason, China's population is concentrated in the east, where river basins are located. The land in these valleys is highly productive, allowing the Chinese to grow rice and many other crops. In contrast, the mountainous western regions of China are more sparsely populated.



Seeing Patterns

B What are the three nations of the region that have grown into major economic powers, and what do they have in common?

Forests are also abundant in the region. China, Japan, Taiwan, and both North Korea and South Korea all have forest resources. Japan has been able to keep most of its forests in reserve by buying timber and other forest products from other regions of the world.

MINERAL AND ENERGY RESOURCES China has large energy reserves of petroleum, coal, and natural gas, and Korea has coal reserves. Japan also has deposits of coal. China's resources have enabled it to be self-sufficient for much of its history. In contrast, Japan's shortage of resources has forced it to trade for what it needs.

China's mineral resources include iron ore, tungsten, manganese, molybdenum, magnesite, lead, zinc, and copper. North and South Korea possess important tungsten, gold, and silver reserves. Japan has reserves of lead, silver, and coal.

WATER RESOURCES China's long river systems are important to the country's economy. They provide crop irrigation, hydroelectric power, and transportation. To control flooding on the Chang Jiang and produce more electricity, China is building the Three Gorges Dam. (See pages 628–630.) The Huang He and Xi Jiang also provide hydroelectric power and a means of transportation.

People in East Asia look to the sea for food. In fact, Japan has developed one of the largest fishing industries in the world. Japanese factory ships process huge amounts of seafood for human consumption throughout the world, as well as in Japan.

You will read about East Asia's climate zones in the next section. You will also read about its vegetation.

Geography TODAY

The Japanese Fishing Industry

There is great competition among the world's nations to harvest the resources of the sea. Sophisticated and mechanized factory ships process the catch while still at sea.

Japan's fishing industry is larger than that of the United States or any country in Western Europe. Fleets of Japanese fishing vessels, such as the sea bass fishing boat shown below, trawl the oceans far from Japan to bring fish back to the home islands. Tuna, mackerel, salmon, and cod are eaten by the Japanese.



Seeing Patterns

In what ways might river systems be important to an economy?



Assessment

1 Places & Terms

Identify each of the following places and terms.

- Kunlun Mountains
- Qinling Shandi Mountains
- Huang He
- Chang Jiang
- Xi Jiang

2 Taking Notes

PLACE Review the notes you took for this section.

Landforms	
Resources	

- What types of landforms are found in East Asia?
- What are their relative locations?

3 Main Ideas

- How might the river basins of China have affected settlement patterns?
- How are the landforms of East Asia an advantage to life in the region?
- What effect might natural resources have had on the development of East Asia?

4 Geographic Thinking

Drawing Conclusions How might China's three large river systems have affected the development of agriculture and trade in the area? **Think about:**

- the obstacles that mountains and deserts present to agriculture
- the network of travel and communication offered by a river system



SEEING PATTERNS Pair with a partner and draw a **map** of East Asia's rivers and mountains. Use arrows to indicate the directions the rivers flow. Why do the three main rivers of China flow all the way east across the continent even though their headwaters begin in the mountains of the west?

Interpreting a Contour Map

Suppose that you are vacationing on the Japanese island of Hokkaido. As part of your trip, you will be climbing Mount Asahi, the highest point on the island. The members of your group decide to study a contour map to understand the challenge that faces you. You can use a contour map to get a better idea of elevation and the steepness of the mountain.

THE LANGUAGE OF MAPS A **contour map** shows elevations and surface configuration by means of contour lines. Contour lines are lines on a map that show points of equal elevation. These lines are also called isolines. Numbers on the contour lines show the elevation in meters.

Elevation on Hokkaido



Copyright by Rand McNally & Co.

- 1** Sapporo, the largest city on the island, is situated at a low elevation.
- 2** Mount Asahi is the highest point on the island.
- 3** The key shows that Mount Asahi is a peak. The key shows that the red lines are contour lines. If you were to follow one contour line around its entire perimeter, you would remain at the same elevation throughout your walk.

Map and Graph Skills Assessment

1. Seeing Patterns

How high, in meters, is Mount Asahi? What is the elevation of the last contour line on the map before the peak?

2. Making Decisions

From what direction of the compass would you approach Mount Asahi if you wanted to make the steepest climb?

3. Drawing Conclusions

Where on the island do the isolines converge most densely to show a very dramatic increase in elevation?



Climate and Vegetation

A HUMAN PERSPECTIVE Kublai Khan was the ruler of the Mongol Empire (which included China) in the 13th century. In 1281, the Great Khan sent a huge fleet against Japan. A **typhoon**—a tropical storm that occurs in the western Pacific—swept across the Sea of Japan and sank the Mongol ships or dashed them against the rocky Japanese shore. The typhoon had changed the course of history. Typhoons occur in parts of East Asia, but in other ways the weather is similar to that of the United States. Both are at the same latitude, and both have similar climate zones.

High Latitude Climate Zones

The climates in the highest latitudes present a serious challenge to all but the most hardy nomads and herders. These zones generally have severely cold climates. In addition, they tend to be very dry.

SUBARCTIC Subarctic climate zones occur in a small sliver along Mongolia's and China's northern borders with Russia. The summers in these areas range from cool to cold. The winters are brutally cold, testing the survival skills of the inhabitants. The climate is generally dry.

The typical vegetation of this region is the northern evergreen forest. Varieties of mosses and lichens also grow on rocks and tree trunks throughout subarctic zones.

HIGHLAND Highland climates are found mostly in western China. The temperature in highland zones varies with latitude and elevation. In general, the farther north the latitude and the higher the elevation, the colder the climate. The severe climate and topography of the western highlands are two of the reasons that the area is sparsely populated.

The vegetation in the highlands also varies with elevation. Forests and alpine tundra are the typical vegetation. Vast tundras reach as far as the eye can see. Tundras have no trees, and the soil a few feet below the surface is permanently frozen. In this environment, only mosses, lichens, and shrubs can grow. Because of the cold and the difficulty of growing crops, few people scratch out a living here.

Main Ideas

- East Asia has a dry highland climate in the west.
- The region has a humid climate in the east.

Places & Terms

typhoon

Taklimakan Desert

Gobi Desert

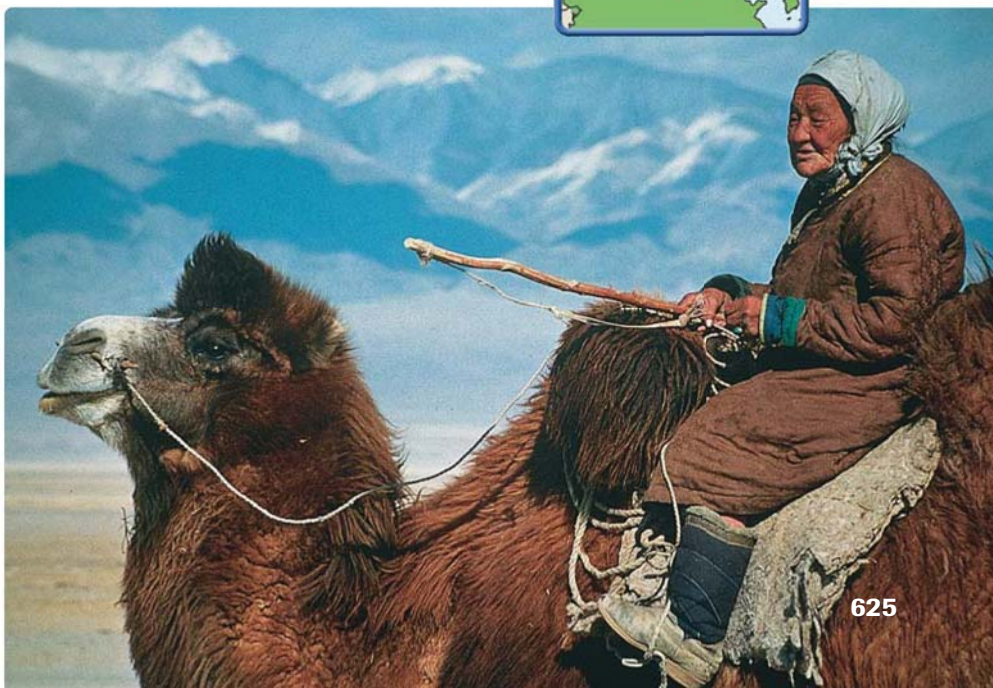
CONNECT TO THE ISSUES

POPULATION To feed its population, East Asian countries have had to farm in highly productive ways.

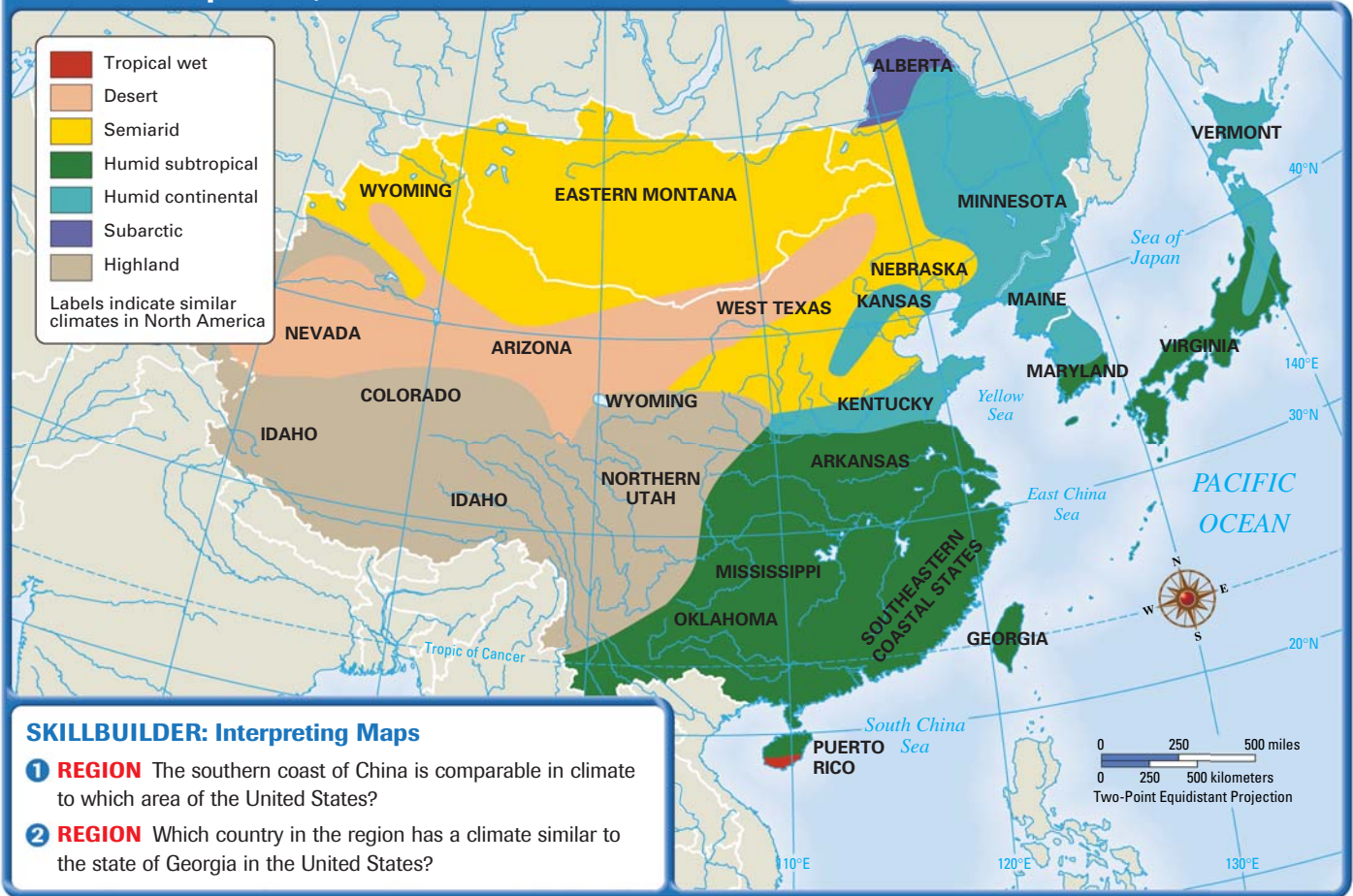
HUMAN-ENVIRONMENT INTERACTION

A 78-year-old woman tends sheep from the back of a camel in a semiarid zone typical of Mongolia.

What does the occupation of sheepherding and livestock grazing suggest about the vegetation in Mongolia?




Climate Comparison, East Asia and North America



Mid-latitude Zones

Mid-latitude zones are much more comfortable to live in because of their moderate climates. The land is productive, and the rainfall is sufficient for agriculture. An important resource of these zones is their forests.

HUMID CONTINENTAL Northeastern China, North Korea, northern South Korea, and northern Japan all have humid continental climates. The forests of the region are mainly coniferous in the humid continental zone. Temperate grasslands ideal for grazing are also found in these areas. However, over the years agriculture has transformed the landscape and replaced many of the forests.


HUMID SUBTROPICAL Southeastern China, southern South Korea, southern Japan, and northern Taiwan are in a humid subtropical zone. The forests in such zones are both deciduous and coniferous. The broad-leaved, deciduous trees are usually found in the north. The coniferous forests are especially typical of areas with sandy soils in the south. However, loggers and farmers have greatly reduced the forests in the southeast. 

Dry Zones

Dry zones of the region include both steppes and deserts. There is relatively little vegetation. These zones are not well suited to agriculture

CONNECT TO THE ISSUES

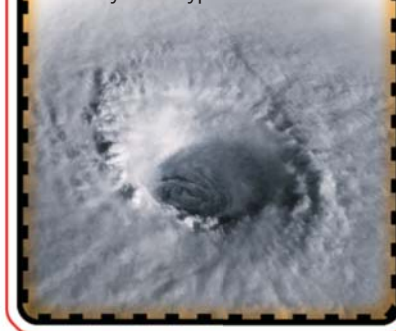
POPULATION

 Why might most of East Asia's population be centered in the mid-latitude zones?

Typhoons in East Asia

A typhoon is a storm that occurs in the western Pacific. It is a kind of tropical cyclone or hurricane. The word has its source in the Chinese word *taaifung*, which means “great wind.” Typhoons are made up of circular winds moving around the center of the storm. They can be 300 miles or more across.

Typhoons begin near the equator and gather force as they move to the west. As a typhoon moves onto land, huge waves of water often batter the shore. The picture below shows the 17-mile-wide eye of a typhoon.



and so have not been much settled by people. Instead, nomads have used the semiarid areas to graze livestock.

SEMIARID Parts of the Mongolian Plateau make up the semiarid zones of the region. The vegetation of semiarid zones consists mainly of short grasses, which provide food for grazing animals and livestock.

DESERT Most of the deserts in the region are found in the west central area of the mainland. The **Taklimakan Desert** is located in western China between the Tian Shan and Kunlun Mountains. The **Gobi Desert** is located in northern China and southeast Mongolia. The Gobi is a prime area for finding dinosaur fossils, since thousands of these animals roamed through the region millions of years ago. **B**



Making Comparisons

B Why might the dry zones of the region be less densely populated?

Tropical Zones

The tropical zones of East Asia contain mainly wet climates. The most common vegetation is the rain forest.

TROPICAL WET The tropical climate zone in East Asia is fairly small. It includes a small strip of land along China’s southeastern coast, the island of Hainan, and the southern tip of Taiwan. These areas have high temperatures, heavy rainfall, and high humidity every month of the year. The tropical rain forest in these places is made up of tall dense forests of broadleaf trees.

In the next section, you will read how human-environment interactions affect the quality of life in rural China and urban Japan.



Assessment

1 Places & Terms

Identify each of the following places and terms.

- typhoon
- Taklimakan Desert
- Gobi Desert

2 Taking Notes

PLACE Review the notes you took for this section.

Climate	
Vegetation	

- What types of climate are found in East Asia?
- What vegetation characterizes the western reaches of China?

3 Main Ideas

- In what ways are the climates of the United States and China similar?
- What effect might severe weather (such as typhoons) have on crops?
- What has been the human impact on mid-latitude climate zones in the region?

4 Geographic Thinking

Making Inferences How might the climate and vegetation of East Asia have affected patterns of settlement in the region? **Think about:**

- the impact of deserts, steppes, and tundra on patterns of settlement

See Skillbuilder Handbook, page R4.



EXPLORING LOCAL GEOGRAPHY East Asia has many kinds of climate. Pair with a partner and make a **poster** that shows the climate of East Asia in which you would most want to live. Include photographs, postcards, maps, and charts. Is there any location in the United States that is similar to your preferred climate?



Human–Environment Interaction

A HUMAN PERSPECTIVE Hundreds of thousands of Chinese died in floods in the 20th century. Most of these deaths were caused by the flooding of the Chang Jiang and the Huang He rivers. These vast river floodplains are home to, and help feed, hundreds of millions of people, and this makes people vulnerable to the rivers' wrath. In addition to the many deaths, the flooding has also forced millions of people to abandon their homes. You will read more about one such flood in Chapter 28 (pages 640–641). But since the early 1990s, the Chinese have been building an enormous dam on the Chang Jiang that will help to control flooding. This is one example of how East Asians have shaped their environment.

The Three Gorges Dam

The **Three Gorges Dam** is being built on the Chang Jiang in China. The dam is helping to control flooding along the great river, the third longest in the world after the Nile and the Amazon. But the dam is also generating power and is expected to allow ships to sail farther into China.

Main Ideas

- The Chinese are building the Three Gorges Dam to control flooding.
- The Japanese have developed creative ways to use their limited amounts of land.

Places & Terms

Three Gorges Dam

PCBs

landfill

CONNECT TO THE ISSUES

PHYSICAL FORCES One reason why the Three Gorges Dam is being built is to control flooding of the Chang Jiang.

Image not available for electronic use.


Please refer to the image in the textbook.

AN ENGINEERING FEAT The Three Gorges Dam is China's largest construction project and is the world's biggest dam. The dam towers more than 600 feet high and spans a valley more than one mile wide. This dam will create a reservoir around 400 miles long. At least 1,000 towns and villages will have disappeared under the waters when the reservoir is filled.

POSITIVE EFFECTS The building of the Three Gorges Dam is a complicated issue because it has had both positive and negative effects. Experts disagreed about whether the dam should be built. But the Chinese government, which began construction of the dam in 1993, argued that the dam will have three positive effects.

First, the dam will help control the frequent flooding of the Chang Jiang, which causes great damage and loss of life. This is critical because the Chang Jiang irrigates about half of China's crops. Also, the river drains about one-fifth of China's total land area.

Second, the dam will generate huge amounts of electrical power. Giant turbines will produce electricity that will be hooked up to electrical grids in central and eastern China. This will improve the reliability of electricity throughout China. By some estimates, the dam's turbines will produce about 2 percent of China's electrical power by 2010. (See the bar chart below for a comparison of the projected generating capacity of the Three Gorges Dam with other large dams.)

Finally, the dam will make it easier for ships to reach China's interior. A series of locks along the river raise ocean-going ships up from the river to the reservoir. The Chang Jiang carries more than half of the goods moving on China's interior waterways. The dam and the locks will increase shipping capacity and decrease shipping costs. 



Seeing Patterns


 What are three benefits of building the dam?

Image not available for electronic use.

Please refer to the image in the textbook.



HUMAN- ENVIRONMENT INTERACTION

The river dolphin, the white crane, and the alligator are just three of the species endangered by the construction of the Three Gorges Dam.

Why might the dam be a threat to various species?

NEGATIVE EFFECTS Most observers agree that the Three Gorges Dam will also have negative effects. The central issue is whether the negative impact on the environment will be greater than the positive benefits.

First, the human costs of the dam will be enormous. Huge numbers of people will have to be moved—somewhere between one million and two million people. Also, hundreds of historical sites and scenic spots will be submerged.

Second, the dam is likely to cost more money than originally anticipated. The Chinese government first estimated the cost at approximately \$11 billion dollars. However, other estimates now place the cost closer to \$75 billion. A number of banks and other financial institutions have chosen not to participate in the financing of the dam because of their concerns about the cost.

Third, environmental concerns about the dam trouble many observers. The giant reservoir created by the dam will put hundreds of square miles of land under water. This will reduce the habitat of many animals. It is feared that abandoned factories submerged under the reservoir may leak contaminating chemicals into the water. The huge reservoir will affect the climate and temperature of the region as well as the plant and animal life. Such species as the alligator, leopard, sturgeon, white crane, and river dolphin may not survive.

The Three Gorges Dam is scheduled to be completed in 2009. However, the Chinese government has not been careful in protecting the environment from the consequences of building the dam. Some international groups are reluctant to invest in the project because of environmental concerns, and this might delay its completion. **B**

Use of Space in Urban Japan

Throughout history, the geographic challenges facing Japan have been different from those facing China. One of the most important challenges is that Japan is made up of a series of mountainous islands. Most of the cities are on the coasts of these islands. But because of nearby mountains, many of the cities cannot expand to absorb any more of the Japanese population, which is about 127 million people. Tokyo is a good example. One of the world's largest cities, it holds more than 25 million people. There is, however, no more land for the city to grow.

CROWDED LIVING AND WORKING SPACES More than 60 percent of the Japanese people live on only about three percent of the land. The population is clustered along the narrow flat coastal plains. **C**

These plains are among the most densely populated areas in the world. The largest cities in Japan are Tokyo, Yokohama, Osaka, Nagoya, and Sapporo. Close to 80 percent of the people in Japan live in cities.

Partly because of their large populations, some Japanese cities have become very polluted. For example, in the 1950s and 1960s, a number



Seeing Patterns

B What might be some negative effects of the dam?



Using the Atlas

C Use the map on page 615. Why might the Japanese people live on such a small percentage of coastal land?

of Japanese cities experienced poisoning from mercury and **PCBs**—industrial pollutants that build up in animal tissue and can cause disease and birth defects. PCBs were banned in 1977. However, cars and factories still cause massive levels of air and noise pollution.

ADAPTING TO LIMITED SPACE

The Japanese have shown great ingenuity in adapting to limited space. Because of the cost of land, houses are small by American standards. The rooms are separated by sliding screens and are sparsely furnished. People sleep on thin mattresses called futons that can be rolled up and stored during the day.

Many people, especially in the biggest cities, live in apartments. It is not uncommon for a family of four to live in a one-bedroom apartment. Some Japanese attempt to escape the overcrowding by moving away from the city to distant suburbs, but they must commute for two or even three hours a day to and from work.

One of the solutions to the shortage of space is landfill. **Landfill** is a method of solid waste disposal in which refuse is buried between layers of dirt to fill in or reclaim low-lying ground. The Japanese have used landfill to reclaim land for most of the major cities along the coast. Tokyo, for example, has built factories and refineries on landfill sites. One result of the use of landfill sites has been to enlarge some of Japan's ports. These reclaimed areas are designed to handle the great number of ships that sail in and out of the port.

You will explore more about how East Asians live in the next chapter, on human geography.



HUMAN-ENVIRONMENT INTERACTION

Capsule hotels in Japan provide tiny rooms for overnight guests.

SECTION 3 Assessment

1 Places & Terms

Identify and explain the significance of each in the region.

- Three Gorges Dam
- PCBs
- landfill

2 Taking Notes

HUMAN-ENVIRONMENT INTERACTION Review the notes you took for this section.



- Which of the examples in this chapter illustrate human adaptation to the environment?
- Which examples illustrate an environment changed by humans?

3 Main Ideas

- What might be a positive effect of the Three Gorges Dam?
- What might be a negative effect of the Three Gorges Dam?
- Why are most of Japan's large cities located along its coast?

4 Geographic Thinking

Determining Cause and Effect What were some of the reasons that led to the building of the Three Gorges Dam? **Think about:**

- the effects of living near an unpredictable river



GeoActivity

ASKING GEOGRAPHIC QUESTIONS Pair with a partner and research a dam in the United States to compare with the Three Gorges Dam. Devise three geographic questions about the dams, such as "How much concrete was used in the construction of the dams?" Then make a **chart** or **graph** in which you provide data to answer the questions. Be sure to identify your sources.

VISUAL SUMMARY PHYSICAL GEOGRAPHY OF EAST ASIA

Landforms

Major Mountain Ranges: Himalayas, Kunlun, Altun, Altay, Qinling Shandi

Major Rivers: Huang He, Chang Jiang, Xi Jiang

Major Deserts: Taklimakan, Gobi

Major Plateaus and Plains: Plateau of Tibet, Tarim Pendi Basin, Mongolian Plateau, Manchurian Plain, North China Plain



Resources

- China, Mongolia, and North Korea have significant natural resources.
- Japan, South Korea, and Taiwan have limited natural resources.



Climate and Vegetation

- East Asia has a dry continental climate in the west and a humid climate in the east.
- Its mid-latitude zones, both humid continental and humid subtropical, are the most densely populated areas.



Human-Environment Interaction

- The Three Gorges Dam is being built along the Chang Jiang to control flooding.
- Urban Japan is very crowded, and people must adapt to space limitations.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

1. Kunlun Mountains
2. Huang He
3. Chang Jiang
4. Xi Jiang
5. typhoon
6. Taklimakan Desert
7. Gobi Desert
8. Three Gorges Dam
9. PCBs
10. landfill

B. Answer the questions about vocabulary in complete sentences.

11. On which river will the Three Gorges Dam attempt to control flooding?
12. What is another name for a tropical cyclone or hurricane?
13. What is the source of two of China's great rivers?
14. Which river joins with others to form an estuary between Hong Kong and Macao?
15. How have landfill sites been used in Tokyo?
16. Where in the region is there a rich supply of dinosaur fossils?
17. What has contributed to the poisoning and pollution of the environment in Japanese cities?
18. Which desert is located in western China near the Kunlun Mountains?
19. Which river is known as "China's Sorrow"?
20. What project is supposed to contain flooding?

Main Ideas

Landforms and Resources (pp. 619-624)

1. Why are the Kunlun Mountains especially important to China?
2. What is the approximate size of the Gobi Desert?
3. What are some of the important islands off the coast of China?
4. Why are China's three river systems so important to the country?

Climate and Vegetation (pp. 625-627)

5. In which latitude and climate zones is most of China's productive agricultural land located?
6. What landforms make up the dry zones of the region?
7. What two factors affect vegetation and temperature in the highland climate?

Human-Environment Interaction (pp. 628-631)

8. What will be some benefits of the Three Gorges Dam?
9. What will be some drawbacks of the dam?
10. What are some of the ways in which the Japanese have adapted to living in a crowded space?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.

Landforms	
Resources	

- Where are the highest mountains in China located?
- What are some energy resources found in abundance in China and Korea?

2. Geographic Themes

- LOCATION** Where is the largest desert found in East Asia?
- REGION** Write a sentence or two describing the settlement patterns of East Asia in terms of its mountains and coasts.

3. Identifying Themes

Based on landforms and climate, which areas of East Asia would be the least agriculturally productive? Which of the five themes are reflected in your answer?

4. Making Decisions

What factors must people in China consider when they are trying to decide what to do about flooding along one of their great rivers?

5. Drawing Conclusions

How does a typhoon create so much damage?

Additional Test Practice,
pp. S1–S37



TEST PRACTICE
CLASSZONE.COM

Geographic Skills: Interpreting Maps

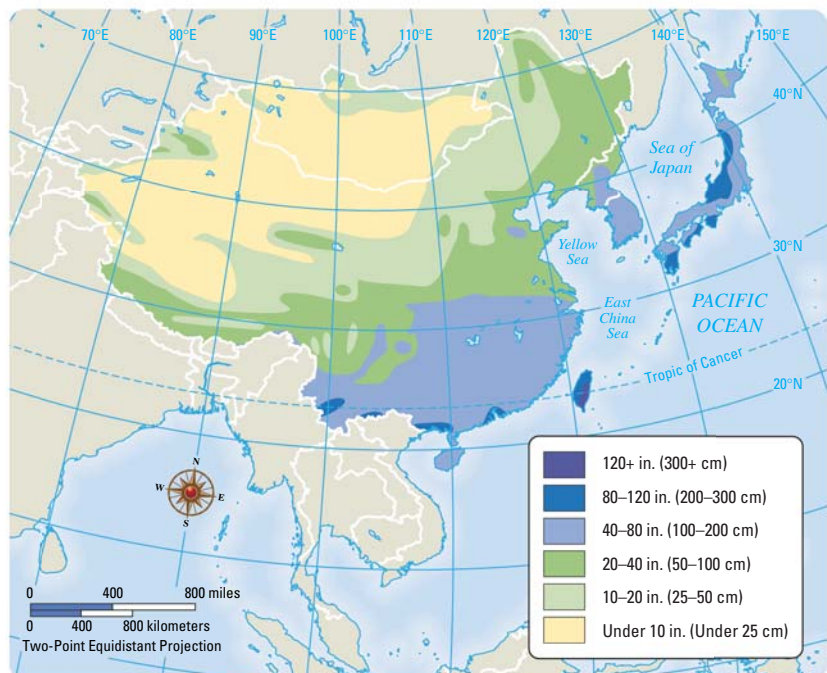
Precipitation in East Asia

Use the map at right to answer the following questions.

- REGION** Which parts of the region have the least precipitation?
- REGION** Which parts of the region have the most precipitation?
- MOVEMENT** How might precipitation patterns have affected settlement in the region?



Create a way to display the map information in graph form. Be sure to list the six countries of the region by name in your graph.



INTERNET ACTIVITY

Use the links at classzone.com to do research on the most productive agricultural regions of East Asia. You might focus on the impact that precipitation has had on settlement patterns and crop growth.

Creating Multimedia Presentations Combine charts, maps, or other visual images in an electronic presentation that shows the most productive farming areas and the most common crops in the region.

HUMAN GEOGRAPHY OF EAST ASIA

Shared Cultural Traditions

SECTION 1

China

SECTION 2

Mongolia
and Taiwan

SECTION 3

The Koreans:
North and South

SECTION 4

Japan

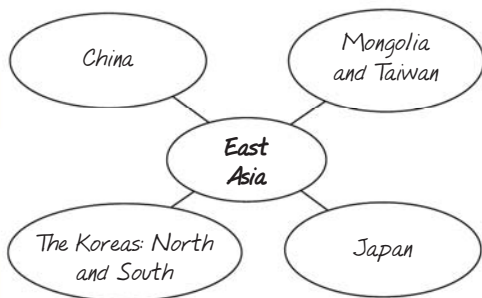
Four Subregions of East Asia



GeoFocus

How has China influenced the cultures of East Asia?

Taking Notes In your notebook, copy a cluster diagram like the one below. For each subregion of East Asia, take notes about its history, economics, culture, and modern life.





China

Main Ideas

- China is the world's most populous country.
- China has been the dominant culture of East Asia since ancient times.

Places & Terms

dynasty

spheres of influence

Boxer Rebellion

Mao Zedong

Confucianism

Taoism

Buddhism

CONNECT TO THE ISSUES

POPULATION China's huge population puts a great strain on the environment.

A HUMAN PERSPECTIVE In ancient times, China had been open to attack from nomadic horsemen who roamed the plains of northern China and Mongolia. Around 220 B.C., the emperor Shi Huangdi decided to build the Great Wall of China by closing the gaps between smaller walls built by earlier rulers. Hundreds of thousands of peasants were used as forced labor to build the Great Wall. The workers hauled and dumped millions of tons of rubble to fill the core of the wall. From the Yellow Sea in the east to the Gobi desert in the west, the Great Wall twisted and turned for thousands of miles, protecting and isolating China from the barbarian warriors beyond its borders.

China's Early History

China is the world's oldest continuous civilization. The beginnings of that civilization extend back into the mists of prehistory. Because of China's geography—the long distances that separated it from Europe and other continents—it followed its own direction.

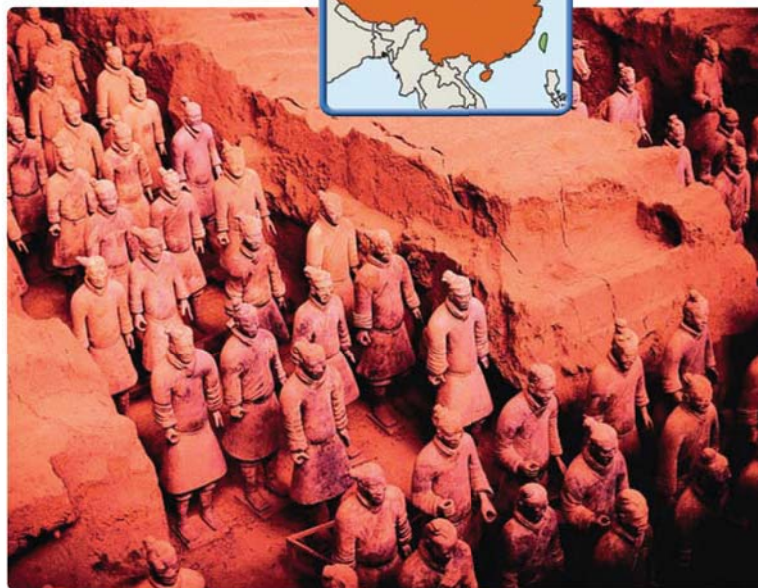
EARLY CIVILIZATION AND THE DYNASTIES China has been a settled society for more than 4,000 years. In its earliest days, China was made up of a number of Stone Age cultures. Then it was ruled by dynasties. A **dynasty** is a series of rulers from the same family. The first Chinese dynasty was the Shang. This dynasty arose during the 1700s B.C. It ruled a central area in China for about 600 years until it was overthrown by the Zhou Dynasty, which ruled part of northern China.

The next important dynasty, the Qin (chihn), gave its name to China. In 221 B.C., the Qin Dynasty united a number of smaller states under a strong central government and established an empire. The first Qin emperor was Shi Huangdi, the builder of the Great Wall. The Chinese empire, ruled by different dynasties, lasted for more than 2,000 years.

Another important Chinese dynasty was that of the Han. These rulers pushed the empire into central Asia, home to many nomadic tribes. Many other dynasties followed over the centuries.

In 1644, the Manchu people of Manchuria invaded China and established the Qing (chihng) Dynasty. In 1911, the Manchus were overthrown by revolutionaries, and this ended the dynasties and the Chinese empire.

PLACE Thousands of life-sized terra cotta (clay) soldiers have been unearthed by archaeologists near the tomb of the emperor Shi Huangdi near Xian, China.



China Opens Up to the World

Even though China remained isolated from other regions for centuries, that started to change in the 13th century. At that time, European travelers began to visit China. Marco Polo, for example, traveled from Venice, Italy, to China in the 13th century and wrote a book about his adventures, *The Travels of Marco Polo*.

China and Europe had few contacts until the 19th century, when European powers sought access to Chinese markets. At that point, China had a weak military and an ineffective government. Europeans took advantage of China and forced it to sign a series of treaties that granted special privileges to the Europeans. Consequently, China was carved up into **spheres of influence** controlled by Britain, France, Germany, Russia, and Japan. This outside control angered China, which burst forth in the **Boxer Rebellion** of 1900. Chinese militants attacked and killed Europeans and Chinese Christians in China. A multinational force of about 20,000 soldiers finally defeated the Boxers.

BACKGROUND
The Boxers were a secret society whose Chinese name meant “fists of righteous unity.”

REVOLUTION AND CHANGE After the Boxer Rebellion, the Qing Dynasty, founded by the Manchus, attempted to reform the Chinese government, but it was too late. Many individuals and groups wanted to form a republic, which would give the people a voice in their government. In 1912, Sun Yat-sen and others founded the *Kuomintang*, or Nationalist Party. However, the republic, led by Sun Yat-sen, was undermined by civil war throughout China.

When Sun Yat-sen died in 1925, a general named Chiang Kai-shek took over the Nationalist Party. Chiang’s troops fought against the warlords of China and united most of the country in the 1920s. However, throughout the 1920s and 1930s, the Chinese Communist Party became an increasingly powerful force in China.

The Nationalists and the Communists fought for control of China. In 1949, the Communists, under the leadership of **Mao Zedong**, finally defeated the Nationalists. Mao and the Communists ruled mainland China (now called The People’s Republic of China) from Beijing. Chiang Kai-shek and the Nationalists fled to the island of Taiwan.

China, 600 B.C.–A.D. 2000

551 B.C.
Chinese philosopher **Confucius** (below) is born.



1368
The Mongol (Yuan) Dynasty is overthrown.

1430
During the **Ming Dynasty** (1368–1644), Chinese artists create beautiful porcelain vases (below).

600 B.C.

200 B.C.

1400

356 B.C.
Building of the first section of the Great Wall in China begins.

221 B.C.
Shi Huangdi (above) becomes the first emperor of unified China.

1271
Marco Polo sets off from Venice on a journey to China.



636

After Mao died in 1976, Deng Xiaoping, a moderate, became China's most powerful leader through the 1980s. In 2003, Hu Jintao became president and Wen Jiabao became premier. Premier Jiabao took responsibility for overseeing China's economic reforms.

Rural and Industrial Economies

When the Communist Party came to power in China in 1949, its leaders promised to modernize China by encouraging the growth of industry. From the 1950s through the 1970s, the central government tried to do this by planning all economic activities. That approach led to more failures than successes. Since the 1980s, though, China has allowed the marketplace and the consumer to play a role in the economy. As a result, China now has one of the fastest growing economies in the world.

THE RURAL ECONOMY In spite of this economic growth, China remains a largely rural society, self-sufficient in agriculture. Its great river valleys provide rich soil for crops such as rice to feed the vast population. Most of China's workers—about 60 percent—work on farms.


Farming is possible only on about 13 percent of China's land because so much of western China is made up of mountains and deserts. Even so, China manages to grow enough food to feed its people. Much of the population is concentrated in the areas where food can be grown.

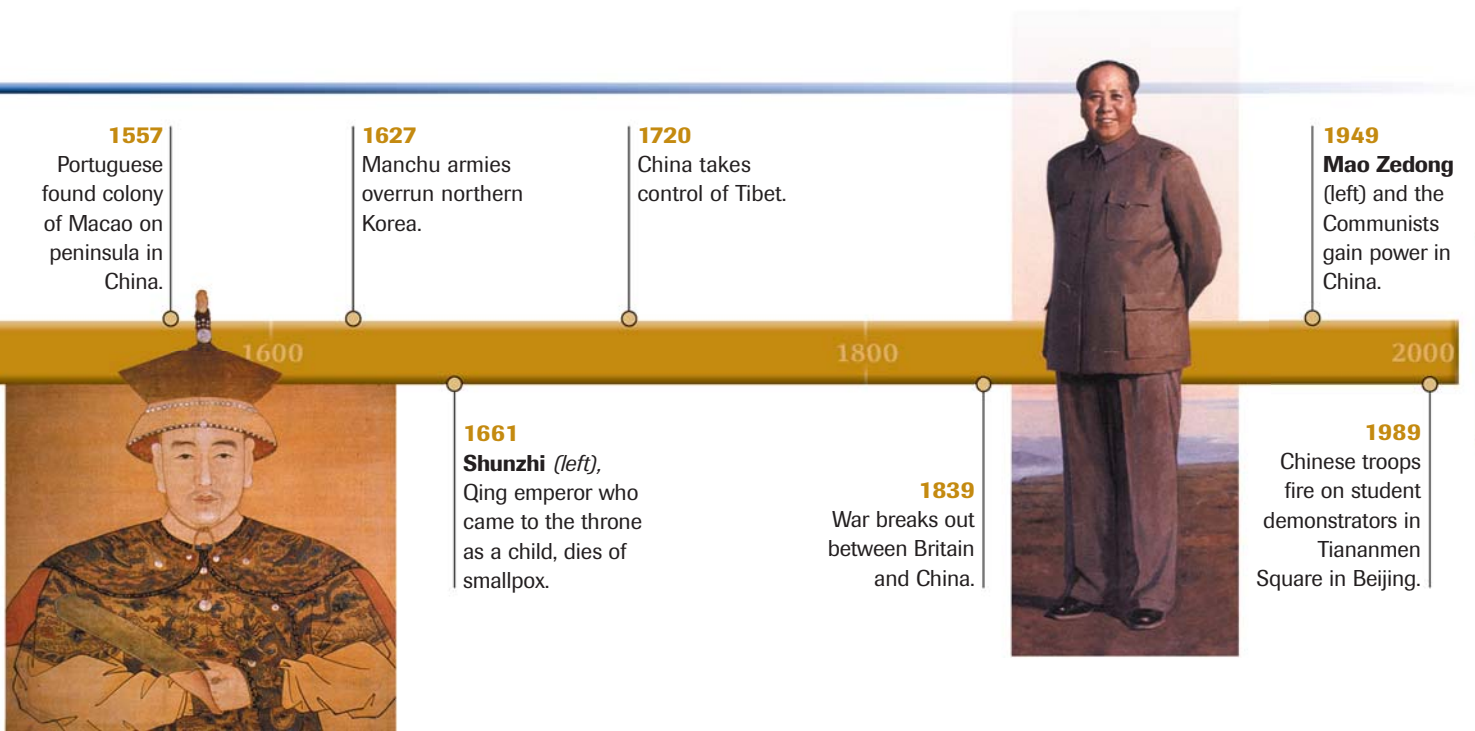
The eastern river basins of China produce crops such as rice, maize, wheat, and sweet potatoes. This productivity is aided by the long growing season in southern China. Farmers there can grow two or more crops on the same land during each year. 

THE INDUSTRIAL ECONOMY The industrial heartland of China is in the northeast. Here are abundant resources important to manufacturing, such as coal, iron ore, and oil. (See map, page 622.) In addition, the northeast has better transportation systems than the rest of the country.

Shanghai leads China as a center of manufacturing and is one of the great industrial centers in the world. Other Chinese cities with many factories and industries include Beijing and Tianjin. Southeastern China

CONNECT TO THE ISSUES POPULATION

 Why is so much of China's population in the east and so little in the west?



has industrial centers in Guangzhou, Hangzhou, Suzhou, Wuhan, and Wuxi.

China has developed heavy industries, such as steel and machinery. It also produces consumer goods. For example, the country has a huge textile (cloth) industry that produces goods for the home market and export. Many textiles are exported to the United States. **B**

CONNECT TO THE ISSUES

TRADE

B Why might trade between the United States and China be important to both countries?

A Rich and Complex Culture

As the world's oldest civilization, China has one of the world's richest cultures. The country has highly developed art, architecture, literature, painting, sculpture, pottery, printing, music, and theater. In all these areas, the Chinese have made influential contributions to the cultures of Korea, Japan, and other countries in the region.

FROM POTTERY TO PAINTING Some of the earliest Chinese works of art have been found in burial sites. Pottery, bronze vessels, and jade disks have been discovered in the excavation of old tombs. In addition, paintings have been found on tiles decorating the walls of tombs. Chinese artists created beautiful works using different materials, such as clay, bronze, jade, ivory, and lacquer.

CHINESE INVENTIONS The Chinese introduced many inventions to the world, such as paper, printing, and gunpowder. Other Chinese inventions include the compass, porcelain, and silk cloth.

RELIGIOUS AND ETHICAL TRADITIONS China has three major religions or ethical traditions. The beliefs of most people include elements of all three. Those traditions have influenced beliefs throughout the region.

Confucius was a Chinese philosopher who lived from 551 to 479 B.C. He believed in respect for the past and for one's ancestors. He thought that in an orderly society, children should obey their parents and parents should obey the government and emperor. He stressed the importance of education in a well-run society. His thinking about the importance of order, education, and hierarchy in a well-ordered society is called **Confucianism**.

Taoism gets its name from a book called the *Tao-te Ching*, based on the teaching of Lao-tzu, who lived in the sixth century B.C. He believed in the importance of preserving and restoring harmony in the individual and in the universe. He also thought the government should leave the people alone and do as little as possible. Another of his major beliefs was that the individual should seek harmony with nature.

Buddhism came to China from India and grew into an important religion in China by the 300s A.D. Confucianism and Taoism influenced Buddhism as it developed in China. Among ideas important in Buddhism are rebirth and the end of the rebirth cycle.

BACKGROUND

Other important Chinese art forms include calligraphy and brush painting.

Chinese Artifacts



An ancient Chinese coin (*above left*) is from about 450 B.C. The jade pendant (*above right*) is from about 250 B.C.




This printed book (*above*) from about A.D. 1000 contains a Buddhist prayer. This navigational compass (*left*) dates from the 18th century.



The Most Populous Country

One out of every five people in the world lives in China. This makes it the most populous country in the world.

POPULATION PATTERNS China's estimated population in the year 2000 was about 1.3 billion. Somewhere between 30 and 40 Chinese cities have populations of more than one million people. Many of China's 22 provinces have more people than entire countries. In the year 2000, Henan province was estimated to have a population of about 93 million people—more than the population of Great Britain. 

Seventy percent of the people live in 12 provinces located in the east. (See map, page 615.) About 6 percent of the people live in the west on 55 percent of the land.

HEALTH CARE One of the great achievements of China since 1950 has been to provide health care for its enormous and far-flung population. The country has pursued a dual strategy in developing its health-care system.


On the one hand, people make use of traditional Chinese medicines, including herbal remedies. Acupuncture is another important part of Chinese medicine.

On the other hand, China's doctors also use Western medicine to treat disease. Western drugs and surgery have their place in the treatment of illness. Most Chinese cities have hospitals, and the villages have clinics staffed by trained medical workers called "barefoot doctors."

In the next section, you will read about two of China's neighbors, Mongolia and Taiwan. China has greatly influenced both places.



Seeing Patterns

 What does the immense size of China suggest about its future?

Connect TO THE Issues

POPULATION

One-Child Policy

Because of concerns about a rapidly expanding population, China in 1979 adopted a policy of one child per family. In addition, the country has age restrictions for marriage. A man must be 22 and a woman 20 before they can marry. Those policies have reduced China's birthrate dramatically.

However, the government policy of one child per family has run into opposition. Rural families, in particular, feel the need for more than one child to help work on their farms. Because of these problems, the government has relaxed the one-child policy.



Assessment

1 Places & Terms

Identify each of the following places and terms.

- dynasty
- spheres of influence
- Boxer Rebellion
- Mao Zedong
- Confucianism
- Taoism
- Buddhism

2 Taking Notes

REGION Use your notes to answer the questions below.



- What are aspects of China's cultural legacy?
- What are some Chinese dynasties?

3 Main Ideas

- Why is China's rural economy still so important?
- What are some of China's most important religious ideas?
- Why is population such an important issue in China?

4 Geographic Thinking

Making Generalizations

How has China's rugged terrain affected its relations with other countries and civilizations? **Think about:**

- the mountains and deserts to the west
- the ocean to the east



See Skillbuilder Handbook, page R6.



SEEING PATTERNS Pair with a partner and investigate an invention of the Chinese, such as printing or the compass. Then present your findings to the class in a brief **oral report** accompanied by an illustration of the invention.

Disasters!

INTERACTIVE

Chang Jiang (Yangtze River) Flood of 1931

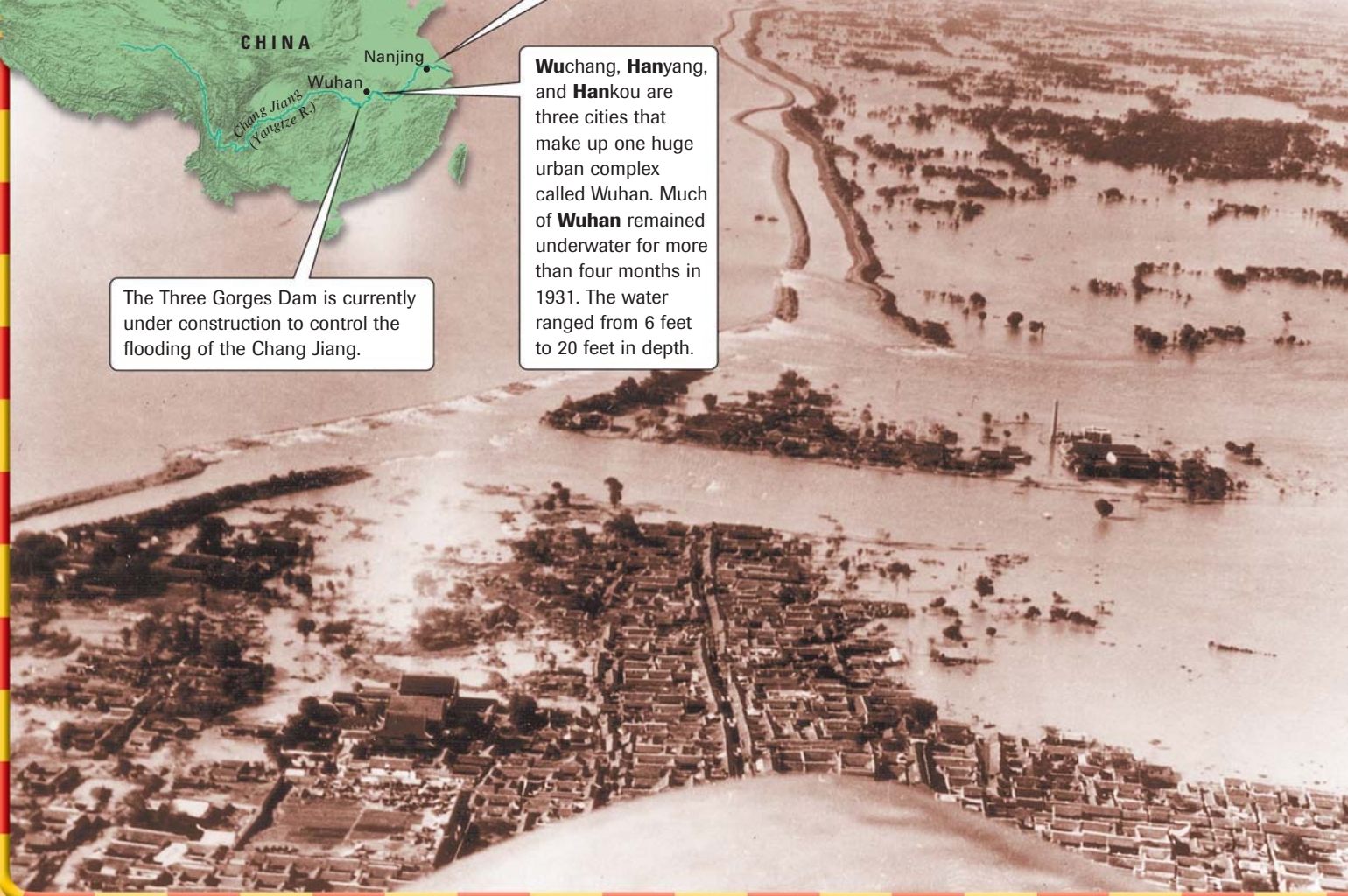
Throughout Chinese history, the flooding of the Chang Jiang has cost millions of lives. On average, the Chang Jiang has caused a major flood about every 50 years, although in the past century or so the floods have been more frequent. The floods of 1931 and 1954 were particularly devastating. The 1931 flood resulted from monsoon rains. In May and June of that year, six enormous waves poured down the river, demolishing dams and dikes. More than 35,000 square miles of land were flooded and many thousands of people died. Floods along the Chang Jiang continue to the present day. Bad floods occurred in both 1996 and 1998.



Nanjing was one of the cities in China that remained underwater for weeks because of the 1931 flood.

Wuchang, Hanyang, and Hankou are three cities that make up one huge urban complex called Wuhan. Much of **Wuhan** remained underwater for more than four months in 1931. The water ranged from 6 feet to 20 feet in depth.

The Three Gorges Dam is currently under construction to control the flooding of the Chang Jiang.





In the city of Hankou during the flood, wealthy people traveled in boats while poor tradespeople waded up to their necks through the water.

This panoramic aerial view of one of the Chinese cities flooded in 1931 was taken by Charles Lindbergh. He was the American aviator who had made the first solo flight across the Atlantic Ocean in 1927.

Along the Chang Jiang, human labor is still essential for flood control. These laborers work with shovels and other tools to fortify the banks of the river with dirt to prevent flooding.



GeoActivity

UNDERSTANDING FLOODS

Working with a partner, use the Internet to research one of the floods listed below. Then create a **presentation** about it.

- Create a diagram showing the extent of the flood, the damage caused by it, and the number of lives lost.
- Add a map of the affected region.
- Write a paragraph explaining how the flood affected the people and life of the region.



RESEARCH LINKS
CLASSZONE.COM

GeoData

OTHER DEADLY RIVER FLOODS

1887

Huang He in northeastern China; possibly more than 1,000,000 people killed

1889

Johnstown, Pennsylvania, on May 31; about 2,200 deaths (more than any other river flood in U.S. history)

1911

Chang Jiang in China; 100,000 killed

1937

Mississippi and Ohio rivers; about 250 killed

1988

Three major rivers in Bangladesh; about 1,600 deaths

1993

Mississippi River; millions of acres flooded; about 50 dead

1998

Chang Jiang in China during July and August; about 4,000 dead

Mongolia and Taiwan

A HUMAN PERSPECTIVE The Mongols of the Asian steppe lived their lives on horseback. In 1206, a great leader named Temujin (later called Genghis Khan) united the Mongol clans and led them in conquering much of Asia. He is reported to have said, “Man’s greatest good fortune is to chase and defeat his enemy, seize his total possessions, leave his married women weeping and wailing, and ride his horse.” The Mongols eventually created the largest unified land empire in history, extending from the Pacific coast of China westward into Europe.

A History of Nomads and Traders

The histories of Mongolia and Taiwan have been closely connected to that of China.

THE MONGOLIAN EMPIRE The Mongols were nomadic herders for thousands of years. Mongol history was changed forever by Genghis Khan, a title that means “supreme conqueror.” Genghis Khan died in 1227, having conquered all of Central Asia and begun the conquest of

Main Ideas

- Taiwan and Mongolia have developed in the shadow of their giant neighbor—China.
- The countries of the region include both capitalist and socialist economies.

Places & Terms

economic tiger

Pacific Rim

CONNECT TO THE ISSUES

TRADE Trade has helped Taiwan achieve prosperity, while Mongolia has not been as economically successful.

A Mongol Army on the Move

A Mongol army was like a moving city. The cavalry of 10,000 was accompanied by an even greater number of family members and by tens of thousands of horses and livestock.


A cavalry warrior's weapons included leather armor, a lance, a dagger, a bow and arrows, and his stout, sturdy horse.

Mongol soldiers were superb horsemen, having spent all their lives in the saddle. Hunting and other activities gave young men a chance to practice skills they would use in battle.

Teams of oxen pulled the mobile yurts of the khan and other leaders.

China. He was succeeded by his son Ogadai, who continued his policies of conquest and expansion. Mongol armies commanded by other sons and grandsons of Genghis Khan moved east, west, and south out of Mongolia.

The Mongol empire broke up in the 1300s. Eventually the Chinese gained control of Mongolia in the 17th century. The Chinese ruled Mongolia for hundreds of years. Only in 1911 were the Mongolians finally able to push the Chinese out and achieve their independence.

Under the influence of its powerful neighbor Russia, Mongolia became the Mongolian People's Republic in 1924. For about 72 years, the Communists ruled Mongolia. However, after the fall of the Soviet Union in 1989, the Communist Party in Mongolia lost its power. The country began moving toward political democracy and a free-enterprise economy. 

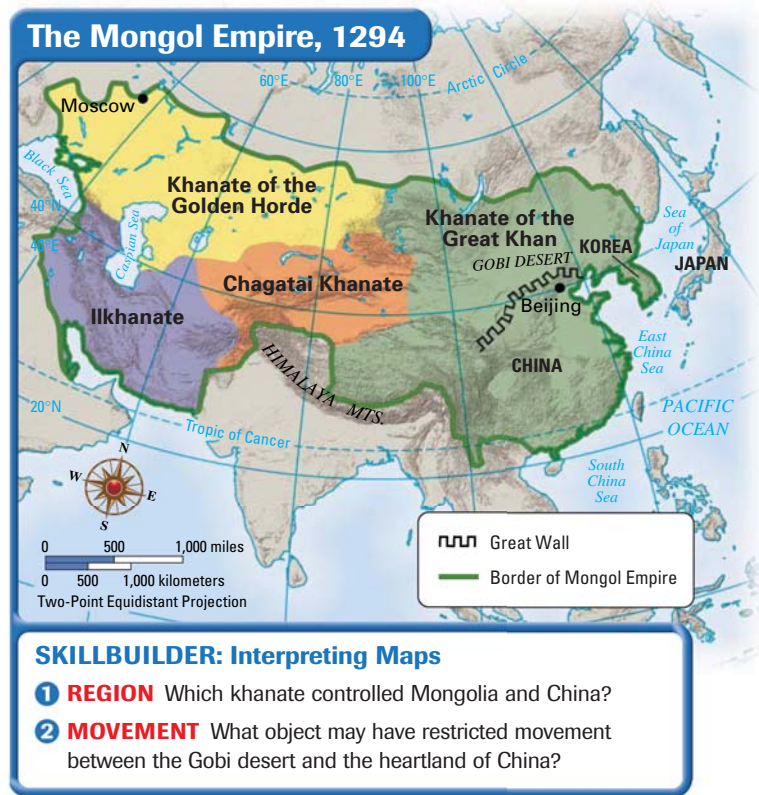
TAIWAN'S LINK TO CHINA The island of Taiwan experienced many prehistoric migrations from southern China and southeast Asia. Malay and Polynesian peoples also settled there. Over the centuries, other settlers and groups of people from China settled on the island. In the sixth century, for example, some Han Chinese arrived. Later, when famine struck Fujian province in the 17th century, a large number of Chinese migrated from the mainland. That contributed to the large Chinese settlements on the island. The Manchu Dynasty conquered Taiwan in 1683. (See Unit Atlas, page 613.)

The Japanese seized Taiwan (then called Formosa) after winning a war with China in 1895. Japan kept the island until its defeat in World War II. Then Chinese Nationalists took control of the island as part of their fight with the Communists for control of mainland China. When the Nationalists lost to the Communists in 1949, they moved their government to Taiwan. There they established the Republic of China. However, the People's Republic of China has never recognized Taiwan as a separate country and considers it a province.


Cultures of Mongolia and Taiwan

China is a cultural hearth that has influenced its neighbors. It has been the source for many of the important ideas and inventions that have shaped Mongolia and Taiwan and the rest of the region.

MONGOLIA Mongolia has both ruled and been ruled by China. Kublai Khan was the Mongol emperor of China when Marco Polo visited in the 13th century. In the mid-14th century, the Chinese rose up against their



Seeing Patterns

 What are some of the countries that have controlled or been controlled by Mongolia over the centuries?

Mongol rulers and drove them out of China. In the 17th century, the Chinese under the Manchus conquered Mongolia, which they ruled for hundreds of years. This interaction produced a profound cultural influence as the Mongols adopted many aspects of Chinese culture.

The most important festival in Mongolia is the annual Naadam festival of the Three Games of Men. The festival, which dates back 2,300 years, begins each year on July 11. The three games are wrestling, archery, and horse racing. The competitors are highly skilled, and winners receive titles proclaiming their abilities. All of these contests have their roots in the ancient way of life of the Mongolian people.

TAIWAN Unlike Mongolia, Taiwan has a population that is almost exclusively Chinese. Thus, the culture of the island is Chinese. The capital city of Taipei includes Buddhist temples as well as museums of Chinese art. The island has many universities and about 30 daily newspapers. The population is well-educated, and most of the people speak the official language of Northern Chinese (also called Mandarin).

The people of Taiwan combine a number of religious and ethical beliefs. More than 90 percent practice a blend of Buddhism, Confucianism, and Taoism. A small number are Christian and an even smaller percentage practice other religions.

BACKGROUND
The population of Taiwan is one of the best educated in Asia, second only to that of Japan.

**HUMAN-
ENVIRONMENT
INTERACTION** A

Mongolian mother and daughter use red paint to mark the horns of their goats.

What purpose might marking goats serve?



Two Very Different Economies

The economies of Mongolia and Taiwan have roots in the past. Raising livestock, a part of the nomadic life, is at the core of the Mongolian economy. Because Taiwan is an island, trade is key to its economy.

ECONOMIC PROSPECTS FOR MONGOLIA

A large part of the population of Mongolia still engages in herding and managing livestock. For centuries, the economy was based on the nomadic herding of sheep, goats, camels, horses, and cattle. More goats are being raised to meet the demands of the cashmere industry, which uses soft wool from goats of the region. Of the millions of animals kept in herds in the country, nearly a third are sheep. Animals and animal products are used for domestic consumption as well as for export.

Although livestock remains the basis of the economy, Mongolia is now committed to the development of other industries. Under the Communist government, the state owned and operated most of the factories in the country. The Soviets guided Mongolia's economy for about 70 years. When the Soviet Union fell

apart, Mongolia was one of the first Communist countries to attempt to shift to a market economy. The transition has been difficult as the country has turned increasingly from a Soviet-style managed economy to a free-market economy.

Mongolia has large deposits of fuels such as coal and petroleum. It also has rich deposits of metals such as copper, gold, and iron. Those resources are used in both manufacturing and construction, industries which are of growing importance to the economy.

TAIWAN'S ECONOMIC SUCCESS Taiwan has one of the world's most successful economies. It has succeeded despite the fact that it has few natural resources. However, it has a highly trained and motivated work force.

Taiwan's prosperity is based on its strong manufacturing industries and its trade with other nations. Among the most successful products of its factories are radios, televisions, calculators, and computers. Taiwanese companies sell their products around the world.

Taiwan is considered one of the economic tigers of Asia, along with Singapore and South Korea. An **economic tiger** is a nation that has rapid economic growth due to cheap labor, high technology, and aggressive exports. It is one of the very prosperous economies of the western Pacific. These economies are highly industrialized and trade with nations around the world. They are part of the **Pacific Rim**—the countries surrounding the Pacific Ocean. The Pacific Rim is an economic and social region. It includes the countries of East Asia, Southeast Asia, Australia, New Zealand, Chile, and the west coast of the United States. **B**

Connect TO THE Issues

TRADE

Trade and Taiwan

Taiwan has a trading economy, and its success as a trader has made it one of the economic tigers of the region.

The electronics industry is at the core of Taiwan's prosperity. Its capitalist economy has developed a number of profitable computer companies that export personal computers all over the globe.

In addition to its electronic products, Taiwan exports many other products. These include machinery, steel, textiles, plastics, and chemicals.



Making Comparisons

B What are some differences between the economies of Mongolia and Taiwan?

Daily Life in Mongolia and Taiwan

The daily life of people in Mongolia and Taiwan shows traditional influences as well as modern influences. This blending of old and new can be seen in both work and play.

HERDING IN MONGOLIA As you learned earlier in this section, the people of Mongolia were nomads who guided their animals from grassland to grassland. The land through which they traveled has an unpredictable, hostile environment. The climate is extreme. Long, cold winters lasting six months alternate with short, hot summers of only two months. Severe winter weather makes it difficult for livestock to survive. Bad weather can kill animals from intense cold and starvation.

Nomads live in tents called yurts that are made of felt covered with leather. This is the traditional form of shelter in Mongolia. Yurts can even be found in the capital of Ulaanbaatar.

Today, many of the people of Mongolia still spend their days raising sheep, cattle, and goats. Some still follow the nomadic way of life, but most people care for livestock on farms and ranches. Often these farms have small villages in the center, with shops, offices, and houses.

MOVEMENT

Taiwan's team celebrates winning the Little League World Series in Williamsport, Pennsylvania, in 1996.



WESTERN INFLUENCES IN TAIWAN Although Mongolia remains relatively isolated from the West, Taiwan has opened itself to many Western influences.

For example, baseball has become popular in Taiwan and in other parts of Asia, particularly Japan. As a part of this general interest in the sport, Little League baseball has also become popular in parts of Asia.

Little League became popular after World War II. In 1974, the United States banned teams from foreign countries from the Little League World Series. In part, that was a response to the success of Taiwan's teams which, throughout the 1970s, dominated the World Series. However, they were restored to competition in 1976. By the 1980s, there were leagues in the United States and 30 other countries.

In the next section, you will read about two countries that share one peninsula: North Korea and South Korea.

SECTION
2

Assessment

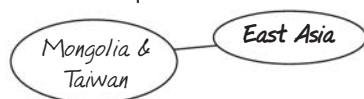
1 Places & Terms

Identify each of the following places and terms.

- economic tiger
- Pacific Rim

2 Taking Notes

REGION Use your notes to answer the questions below.



- How are the economies of Mongolia and Taiwan different from one another?
- What effect did Genghis Khan have on the history of the region?

3 Main Ideas

- a. In which ways has China influenced its neighbors?
- b. What are some of the characteristics of an economic tiger?
- c. In what ways does the modern life of Mongolia and Taiwan show a blending of ancient and modern traditions?

4 Geographic Thinking

Drawing Conclusions

How might the locations of Mongolia and Taiwan have made them open to the influence of China? **Think about:**

- the relative locations of Taiwan and Mongolia



RESEARCH LINKS
CLASSZONE.COM

GeoActivity

SEEING PATTERNS Pair with a partner and do Internet research on Little League baseball in Taiwan or some other country in East Asia. Create a **poster** showing various teams in the region. You might include photographs and charts in your poster, listing the names of teams, their win-loss records, and any other information your research turns up.



The Koreas: North and South

A HUMAN PERSPECTIVE Korea is surrounded by water on three sides and by mountains on its northern border. In the 17th and 18th centuries, Korea chose self-protected isolation and became known as “the hermit kingdom.” This isolation has continued in North Korea, which has little contact with other nations even today. However, that may be changing.

A Divided Peninsula

Korea is a peninsula. To the east lies the Sea of Japan. To the west lies the Yellow Sea. To the south lies the Korea Strait. To the north lie China and Russian Siberia. Korea’s location has shaped its history.

ANCIENT KOREA AND FOREIGN INFLUENCES The ancestors of today’s Koreans probably migrated into the peninsula from Manchuria and North China many thousands of years ago. Over the course of the centuries, different clans or groups controlled different parts of the country. About 2000 B.C., the first state, called Chosen, arose in Korea.

Around 100 B.C., China conquered the northern half of the peninsula. This began the history of invasions by China and Japan. Because of its location, Korea has been a buffer between the two countries.

After being partially conquered by China, the Koreans gradually won back their territory. By the late 300s, the **Three Kingdoms** had formed in the peninsula. These were Koguryo in the northeast, Paekche in the southwest, and Silla in the southeast. In the 660s, Silla conquered the other two kingdoms and controlled the peninsula for hundreds of years.

Main Ideas

- The Korean peninsula is divided into two separate countries.
- North Korea is a Communist country, and South Korea is a republic.

Places & Terms

Three Kingdoms

Seoul

Pyongyang

CONNECT TO THE ISSUES

TRADE South Korea is one of the economic tigers of the region, and much of its prosperity depends upon industry and trade.

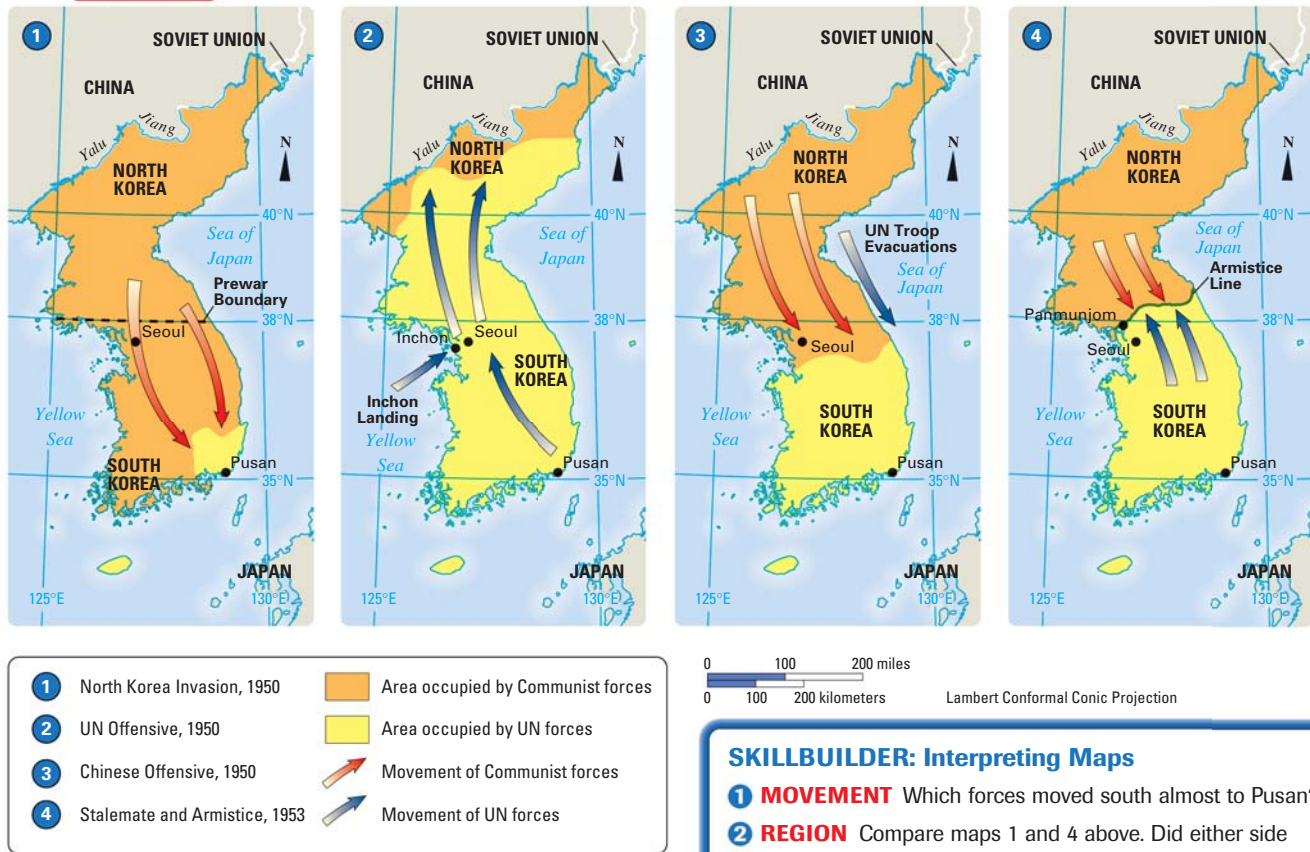
PLACE Kyungbok Palace is located in Seoul, South Korea.

What does the setting of the palace amidst the bustle of Seoul suggest about the culture?



The Korean War, 1950–1953

INTERACTIVE



In 1392, a general named Yi Songgye became ruler of Korea. He founded a dynasty that lasted for hundreds of years. But the dynasty ended in 1910, when Japan took control of the entire peninsula. The Japanese ruled Korea until they were defeated in World War II in 1945.

TWO KOREAS: NORTH AND SOUTH After Japan's defeat in the war, the northern part of Korea was controlled by the Soviet Union, and the southern half was supported by the United States. In 1950, Korean troops from the North invaded South Korea, starting the Korean War. The war ended in 1953 with a treaty that divided the peninsula between the Communist state of North Korea and the democratic country of South Korea. The two nations remained hostile toward each other, but in the year 2000, they began discussions on reuniting.

Influences on Korean Culture

The shadow cast by China has fallen across the Korean peninsula. Korean culture, including language, art, and religion, shows this influence. More recently, western economic influences have been very important.

THE CHINESE INFLUENCE In philosophy and religion, Korea has adapted many ideas from China. Confucianism (see Section 1) is a system of teachings based on the beliefs of the Chinese scholar Confucius. His ideas stressing social order have influenced many Koreans. Buddhism, which came to Korea by way of China, has also influenced many Koreans.


OTHER CULTURAL INFLUENCES Since World War II, two major influences have had a profound effect on Korea. First, Communism has molded the culture of North Korea. Non-Communist South Korea, on the other hand, has been greatly influenced by Western culture.

In North Korea, the government only allows art that glorifies Communism or the folk tradition. In South Korea, artists have more freedom of expression. They work with themes drawn from their own history and culture, as well as themes drawn from Western art.

Moving Toward Unity

The most important recent development in North Korea and South Korea is the movement toward unification. However, the communist North and democratic South must overcome years of mutual hostility.


AN ARMED SOCIETY After World War II, both North Korea and South Korea built up huge armies. The armed forces of South Korea number more than 600,000 soldiers and sailors. The armed forces of North Korea are even larger, numbering well over one million.

Both countries have existed with large armies and the threat of another war for many years. Only recently has there been an attempt to defuse the situation to prevent an outbreak of war. War has been a real possibility along the border between North Korea and South Korea, which is guarded by nearly 2 million troops on both sides. 

A SINGLE FLAG There are signs of hope, however. In June 2000, the leaders of both Koreas held a summit meeting at which they declared their intention to reunite the two countries. Shortly after, the defense



Seeing Patterns

 What have been the main differences dividing North Korea and South Korea?

growing up in... South Korea

Young people, like most other South Koreans, follow at least some of the teachings of Confucius. For example, education is highly valued. The state requires by law that students obtain a primary education, and this schooling is free. The majority of children attend secondary schools. More than one million students attend college-level schools in South Korea.

However, in addition to traditional ideas and ways of life, there is a strong western influence in South Korea. This can be seen in the Western clothes worn by these students as they enjoy an outing in the Nampodong shopping district in Pusan, South Korea.

If you lived in South Korea, you would pass these milestones:

- You would be required by law to attend school through 6th grade.
- You would be able to vote at age 20.
- You would next attend middle school—grades 7 through 9.
- The average age for a first marriage is 29 for men and 26 for women.
- You would then probably attend high school—grades 10 through 12.
- The average age of women at the birth of their first child is 27.



chiefs of the two Koreas met and agreed to reduce tensions along their border. They agreed to discuss clearing land mines so they could rebuild a rail link between the two countries. Perhaps most importantly, families in North Korea and South Korea were allowed to visit each other.

At the summer Olympics held in Sydney, Australia, in 2000, there was another sign of a thaw. The two Koreas marched into the Olympic Stadium under a new flag designed for a single, unified Korea.

Economic and Human Resources

Before the Korean War, the economies of North Korea and South Korea were agricultural. After the war, industry gained in importance in both countries. In many ways, the resources of each country balance one another.

ECONOMIC PATTERNS If North Korea and South Korea reunite, they will form an economic powerhouse. North Korea will be able to provide natural resources and raw materials for South Korea's industries.

South Korea, like Taiwan, is one of the economic tigers of Asia. It is a highly successful and competitive economy. It has the world's largest shipbuilding industry, as well as large automobile, steel, and chemical industries. South Korea is today one of the world's top trading nations.

POPULATION PATTERNS Most of the people in Korea live on plains along the coast or in river valleys among the mountains of the peninsula. South Korea has 45 percent of the Korean peninsula's land area but about 66 percent of its people. **Seoul** is by far the largest city in South Korea, with a population of more than 10 million. The largest city in North Korea is **Pyongyang**, with more than 2.5 million people.

In the next section, you will read about the history, culture, economics, and daily life in Japan.



Assessment

1 Places & Terms

Identify and explain the significance of each of the following in the region.

- Three Kingdoms
- Seoul
- Pyongyang

2 Taking Notes

REGION Use your notes to answer the questions below.



- In which ways has China influenced the culture of Korea?
- Which countries in the region have invaded Korea?

3 Main Ideas

- a. What impact has the border between North Korea and South Korea had upon life in both countries?
- b. How is the economy of South Korea different from that of North Korea?
- c. Which two major influences have shaped North Korea and South Korea since World War II?

4 Geographic Thinking

Drawing Conclusions How has Korea's physical location affected its history? **Think about:**

- the definition of a peninsula
- the location of Korea's neighbors

 **See Skillbuilder Handbook, page R5.**



SEEING PATTERNS Both Taiwan and South Korea are considered economic tigers of East Asia. What are some characteristics that they share? Make a **Venn diagram** showing the similarities and differences between the two.



Japan

Main Ideas

- Japan has an ancient culture and traditions.
- Japan is the economic giant of East Asia.

Places & Terms

samurai

shogun

CONNECT TO THE ISSUES

PHYSICAL FORCES Japan is vulnerable to devastating earthquakes and huge ocean waves because of its location.

A HUMAN PERSPECTIVE The Japanese flag shows a red sun against a white background. The red sun symbolizes Amaterasu, the sun goddess. According to myth, the Japanese emperor and his family are descended from the goddess. The Japanese call their country *Nippon*, which means “source of the sun.” The name *Japan* may have come from a Chinese phrase meaning “origin of the sun,” or it may have come from *Chipangu*, a name for the country recorded by Marco Polo.

Samurai and Shogun

Japan lies east of China—toward the rising sun. In their earliest history, the Japanese were close enough to China to feel its civilizing effects, but they were far enough away to be protected from invasion.

ANCIENT JAPAN The original inhabitants of Japan may have come to the islands from the mainland of Asia and from the South Pacific. There is some evidence to suggest that the ancestors of today’s Japanese came eastward through Siberia and Korea and entered Japan. By about 1,500 years ago, most of Japan was actively growing food, such as rice. Weapons and tools made of bronze and iron were introduced, along with textiles.

Until the A.D. 300s, Japan was not a unified country. It was made up of hundreds of clans ruling separate territories. Then, by the fifth century, the Yamato clan had become the ruling clan. It claimed descent from the sun goddess, and by the seventh century, its leaders called themselves emperors of Japan.

In 794, the rulers moved the capital to the city of Heian (modern Kyoto). The era from 794 to 1185 is called the Heian period. During this time, Japan’s central government was strong, but eventually the great landowners and clan chiefs began to act as independent rulers.

Professional soldiers called **samurai** served the interests of the landowners and clan chiefs. The samurai (the word means “one who guards”) served as a bodyguard of warriors loyal to the leader of a clan.

THE SHOGUNS In 1192, after a struggle between two powerful clans, the Japanese emperor created the position of shogun. The **shogun** was the general of the emperor’s army with the powers of a military dictator.

PLACE Takeda Shingen was one of the greatest samurai leaders in 16th century Japan.

What does this painting seem to suggest are some of the qualities of the samurai warrior?



All officials, judges, and armies were under his authority. The shoguns appointed governors, called *daimyo*, to each province. They were responsible for maintaining order.

Rule by the shoguns lasted for about 700 years. During those years, the Japanese fought off Mongol invasions and saw the arrival of Portuguese traders, who brought Christianity and firearms to Japan in the 1500s. In 1853, Commodore Matthew Perry's arrival to Japan from the United States ended Japan's isolation. In 1868, the last shogun resigned, and the emperor became head of the government.

EMERGING WORLD POWER During the late 19th century, Japan's government began bringing Japan into the modern age. By the early 20th century, Japan had become a major power.

During the early years of the 20th century, Japan expanded its empire. (See map on next page.) Its interests and those of the United States came into conflict in the Pacific region. On December 7, 1941, the Japanese launched a surprise attack on the U.S. naval base at Pearl Harbor in Hawaii. The attack brought the United States into World War II, which ended with Japan's defeat and surrender in 1945. **A**

After World War II, the United States headed the occupation of Japan and introduced political and economic reforms. Eventually Japan became a democracy—a constitutional monarchy with an emperor and an elected parliament.



Seeing Patterns

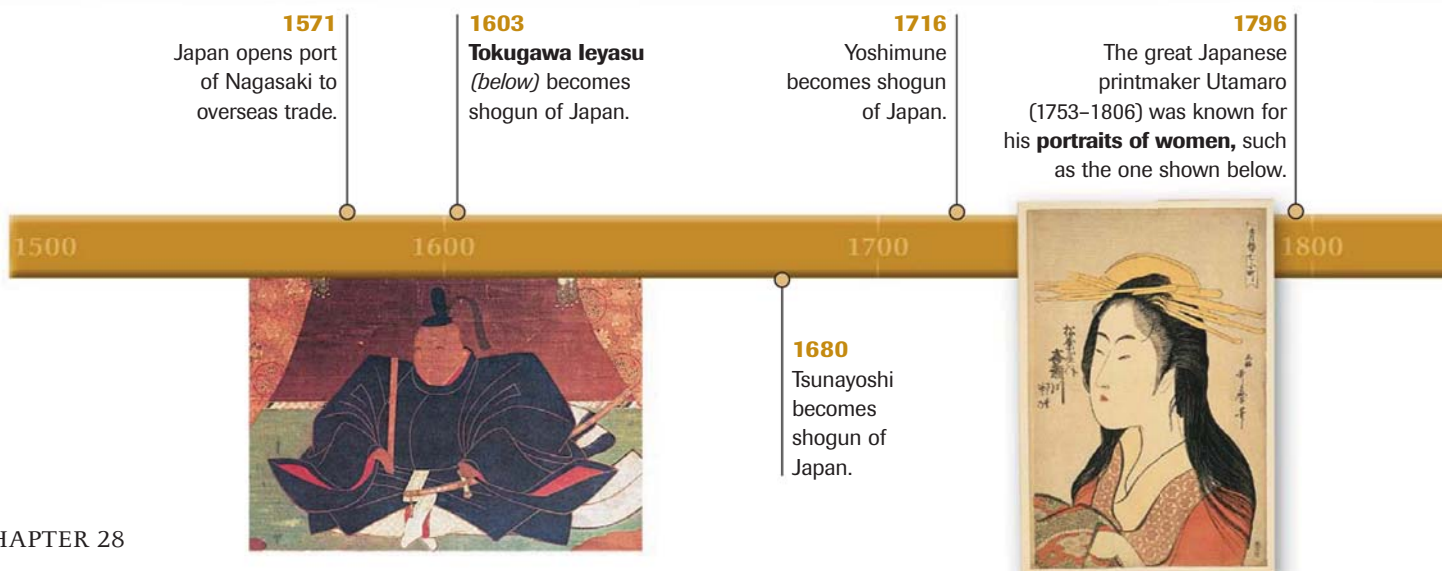
A How might Japan's 20th century empire have reflected its history?

An Economic Powerhouse

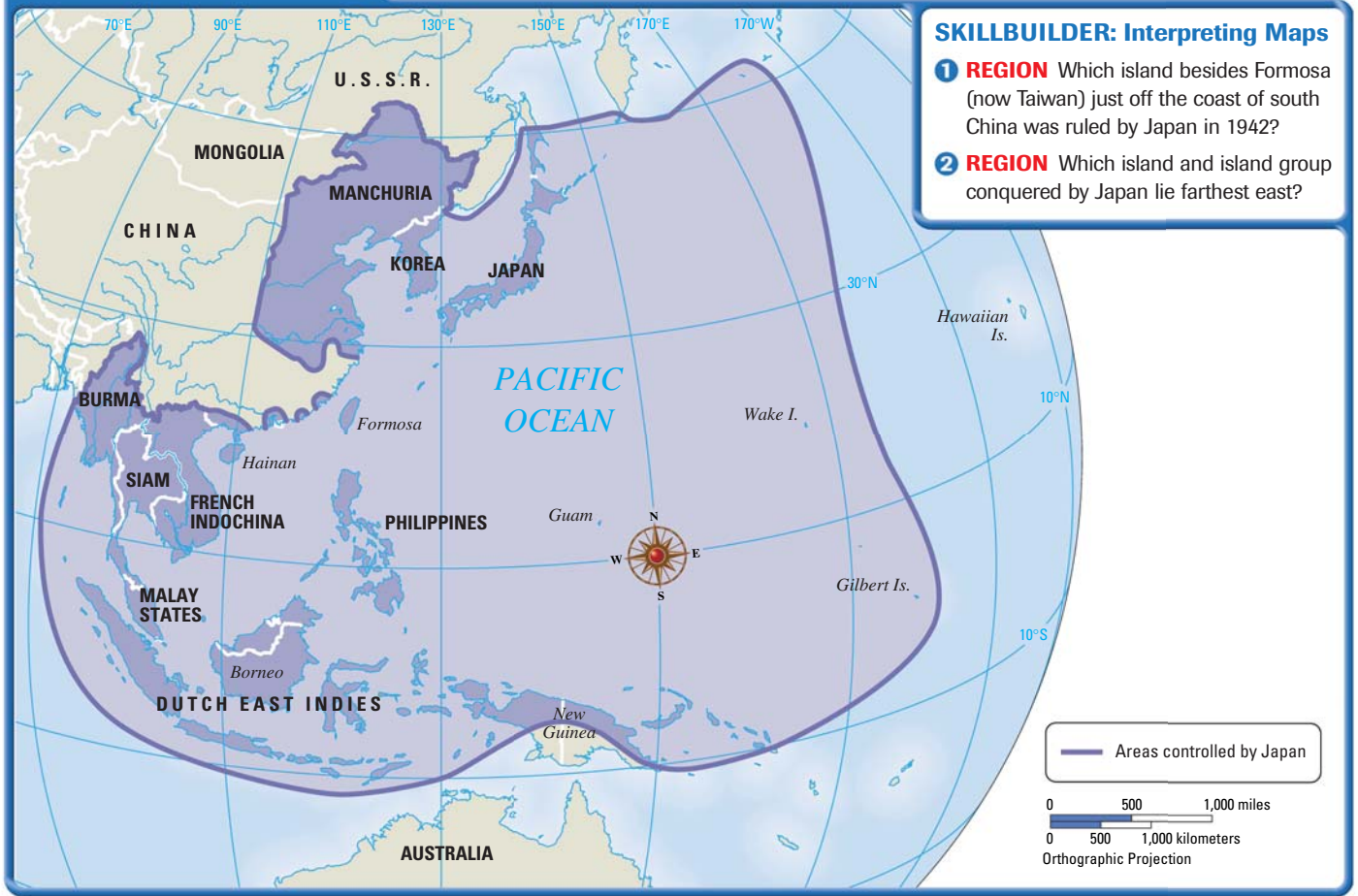
After its defeat in World War II, Japan transformed itself into one of the world's most powerful economies. It experienced an economic boom, even though it has few natural resources. Japan is second only to the United States in the size of its economy.

PEOPLE AND PRODUCTS The population of Japan is more than 126 million. About 75 percent of Japan's people live in cities. Sixty percent of the people live on 2.7 percent of the land. Japan has few minorities, and those few are often discriminated against.

Japanese History, 1500–2000



Japanese Empire, 1942



Most of Japan's population and most of its industry and manufacturing are located in a corridor hundreds of miles long along the east coast of the main island of Honshu, with Tokyo as its anchor. The people who live in this corridor form the work force that produces goods sold around the world.

Manufacturing and trade are at the heart of Japan's economy. Japan imports most of the natural resources for its industrial needs. Among the resources it imports are coal and petroleum. Then it uses those resources and others to manufacture products for export to the global market. Among the most important of those products are cars, trucks, and electronic equipment such as televisions and computers.

A strong alliance between business and government has been one of the reasons for Japan's economic success during the second half of the 20th century. After the war, the United States gave economic assistance to Japan. Financial support from the government helped Japanese businesses develop products to market abroad.



1853

A Japanese woodcut shows **Commodore Perry** (above) upon his arrival in Japan.

1945

The **mushroom cloud** (below) is from an atomic bomb dropped on Nagasaki on August 9, 1945.



ECONOMIC SLOWDOWN After four decades of rapid growth, Japan's economy began to slow down in the 1990s. As the economic growth rate declined, many companies scaled back their operations, and some went bankrupt. A number of reasons accounted for this slowdown.

Other economies in East Asia, such as those of Taiwan, South Korea, and Hong Kong, provided competition. Then, when the economies of Southeast Asia encountered problems, Japanese investments there lost value. Many banks proved vulnerable. The Japanese stock market suffered big losses. Also, the Japanese people tended to save rather than spend. As a result, the economy became even more dependent on exports, which declined because of competition from other countries. **B**

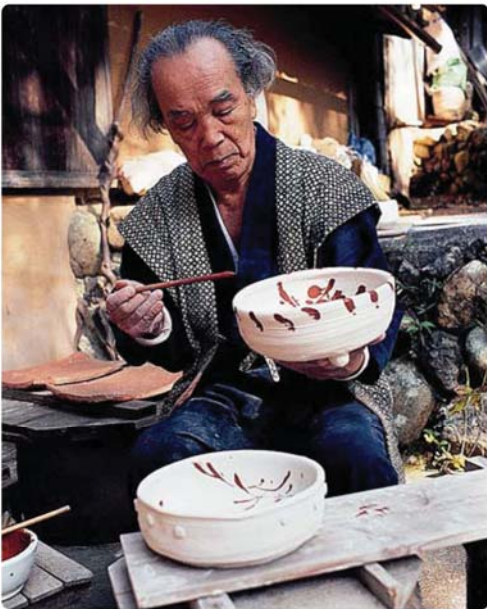
**CONNECT TO
THE ISSUES**

TRADE

B How are the economies of the region connected?

Japanese Culture

Japanese culture reflects the influences of both East and West. From these influences, Japan has developed its own unique culture.



PLACE Toyozo Arakawa, one of Japan's leading potters, was named a "Living National Treasure" in 1955.

What does the naming of a person as a national treasure say about a culture?

A TRADITIONAL PEOPLE In developing their early culture, the Japanese borrowed from China. Japanese language, religion, art, music, and government were all influenced by the Chinese.

The city of Kyoto is a monument to Japanese culture. The city contains Buddhist temples and Shinto shrines built of wood in the old style. The entire city is a living testament to Japanese ideas of beauty. Gardens, palaces, and temples all reflect a very spare, elegant, and refined style. In Kyoto and throughout Japan, great emphasis is placed on achieving harmony between a building and its natural surroundings.

Traditional drama is still performed in Japan. Noh plays developed during the 14th century. They deal with subjects drawn from history and legend and are performed by actors wearing masks. In the 17th century, Kabuki plays developed. They have colorful scenery, an exaggerated acting style, and vivid costumes.

Japanese painting was influenced by Chinese techniques and themes. Many early Japanese paintings show Buddhist themes that often came to Japan by way of China. Some examples of Japanese artistic works include long picture scrolls, ink paintings, and wood-block prints.

WESTERN INFLUENCES Since the day in 1853 when Commodore Perry sailed his fleet into Tokyo Bay, Japan has been open to Western influences. Those influences are visible in modern-day Japan.

Sports like baseball, golf, sumo wrestling, soccer, and tennis are popular in Japan. The clothes worn by most people are Western in style, although traditional clothing is worn on special occasions.

Western music is also popular in Japan. Rock music is popular among younger Japanese. They listen to Western groups and form rock bands of their own. Many cities in Japan have symphony orchestras that play Western classical music. Jazz is also popular.

Japan has been successful at balancing its traditional styles in art, theater, music, and architecture with influences from the West.

BACKGROUND

A tradition of print-making native to Japan is called *ukiyo-e*, which means "pictures of the floating world," the Japanese term for scenes from everyday life.

Life in Today's Japan

The people of Japan are educated and disciplined. This work force has enabled Japan to achieve prosperity.

EDUCATION Japan's educational system is highly structured. Students often attend school six days a week. They have a shorter summer vacation than American students—just six weeks in late July and August. Students attend six years of elementary school and three years of junior high school. Education is free during those years. Then they spend three years in high school. At the same time, many students attend classes at private schools called *juku* to help get them into good colleges.

Competition among students is high to gain admission to the best universities. Japan has more than 1,000 universities and technical colleges. Universities that rank at the top of the educational system include the University of Tokyo, Kyoto University, Keio University, and Waseda University.

CHANGES IN SOCIETY The Japanese are making some changes in the way their society is run. People are now increasingly demanding an end to pollution and overcrowding. Furthermore, workers at all skill levels are asking for shorter workdays and more vacation time.

In the next chapter, you will read about three important issues in East Asia. These include trade, the pressures of a large population, and the dangers posed by volcanoes around the Pacific Ocean.

5 THEMES

MOVEMENT

The Bullet Train

Japan's bullet train, called *shinkansen*, is among the fastest in the world. It can reach speeds of 186 miles per hour. The train was built primarily to connect cities on the main island of Honshu. Among the cities linked by these high-speed electric trains are Tokyo and Osaka.

The bullet trains' high speed makes it possible for people to commute from jobs in Tokyo to homes in locations far from the capital city. Here, a bullet train speeds past Mount Fuji.



Assessment

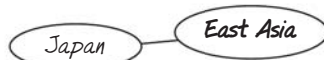
1 Places & Terms

Identify and explain the significance of each of the following in the region.

- samurai
- shogun

2 Taking Notes

REGION Use your notes to answer the questions below.



- What happened to Japan in World War II?
- What is the importance of education in Japan today?

3 Main Ideas

- What is the basis of Japan's economic prosperity?
- What are some examples of traditional Japanese culture?
- How did the Western world influence Japan beginning in the 19th century?

4 Geographic Thinking

Making Inferences How might Japan's isolation and its uniform population have both helped and hindered it in its attempts to achieve prosperity? **Think about:**

- the advantages of uniformity
- the importance of creativity



SEEING PATTERNS Japan has some very distinctive cultural forms, such as Kabuki theater and sumo wrestling. Present a brief **report** to the class on some aspect of Japanese culture, illustrated by visuals that you have found in your research.

Comparing Cultures

Masks

Masks are coverings that disguise the face. Most cultures use masks for a variety of purposes. Followers sometimes wear ceremonial masks during religious celebrations. Actors wear theatrical masks during performances such as those in the classical drama of ancient Greece, China, and Japan. Mourners sometimes placed burial masks over the faces of the dead before they were buried. In ancient Egypt, they placed the mask directly on the mummy or else on the mummy case. Participants sometimes wear festival masks during celebrations such as Mardi Gras in New Orleans or Carnival in Rio de Janeiro.



A masked dancer in Bali, Indonesia, performs a ritual dance. Balinese dancers move to the music of gongs and flutes. In their dances, each movement and gesture helps to tell the story.



This mask from Angola represents a female ancestor with an elaborate headdress. A member of the Chokwe culture in Africa created this mask out of wood and fibers in the 20th century.



Native American ceremonial masks were used to calm angry spirits. This mask is a product of the Iroquois culture of the northeast woodlands and was used in healing ceremonies.

Japanese masks and costumes are worn by a performer in a Noh drama, the classical drama of Japan. Masked performers create music and dance in a highly stylized manner.



GeoActivity

MAKING MASKS

Use the Internet to research how to make different kinds of masks. Choose materials that are easy to obtain. Then make a **mask** that you will show to the class.

- Use a technique about which you have found information.
- Write a description of the procedure you followed to make the mask.
- Display your mask in an area set aside in the classroom.



RESEARCH LINKS
CLASSZONE.COM

GeoData

ODD FACTS ABOUT MASKS

- In Europe, masks have been discovered that date back as early as 30,000 years ago to Paleolithic times.
- The solid gold death mask of the pharaoh Tutankhamen, which covered the head of his mummy, weighs 22.5 pounds.
- Masks were worn by the performers of tragedies and comedies in ancient Greece.
- The Senesi people of New Guinea use masks that include skirts that cover much of the body.
- The Aleuts of Alaska cover the faces of their dead with wooden masks.
- Death masks made of plaster are sometimes put on the face of the dead to preserve their features for posterity. Death masks exist for Napoleon Bonaparte and Ludwig van Beethoven.
- The mask worn by actor Clayton Moore in the television show *The Lone Ranger* was sold at auction for \$33,000.

VISUAL SUMMARY

HUMAN GEOGRAPHY OF EAST ASIA

Subregions of East Asia

● China

- China has more people than any other country in the world.
- It is about the same size as the United States in area.
- It has been the dominant culture in the region since ancient times.

● Mongolia and Taiwan

- The histories of Mongolia and Taiwan have been closely linked with that of China.
- They have pursued separate paths of development—Mongolia has had a managed economy, while Taiwan has a capitalist economy based on manufacturing and trade.

● The Koreas: North and South

- The Korean peninsula is divided into two separate countries: Communist North Korea and capitalist South Korea.
- Recently, the two countries have begun discussing the possibility of becoming one country.

● Japan

- Japan is a great industrial power.
- It has managed to achieve economic prosperity despite its small land area and limited resources.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

- | | |
|--------------------|-------------------|
| 1. dynasty | 6. Three Kingdoms |
| 2. Boxer Rebellion | 7. Seoul |
| 3. Mao Zedong | 8. Pyongyang |
| 4. Confucianism | 9. samurai |
| 5. Pacific Rim | 10. shogun |

B. Answer the questions about vocabulary in complete sentences.

11. Which area extends from New Zealand in the western Pacific to Chile in the eastern Pacific?
12. What term means “one who guards”?
13. What is the largest city in North Korea?
14. Which city in the Koreas has about 10 million residents?
15. What event did it take a multinational force of 20,000 soldiers to end?
16. Which term describes a leader with the powers of a military dictator?
17. In which system of thought was there respect for the past and one’s ancestors?
18. Who ruled the People’s Republic of China from 1949 to 1976?
19. The Shang and the Han are examples of what?
20. Koguryo, Paekche, and Silla made up what?

Main Ideas

China (pp. 635–641)

1. In what ways has China influenced other cultures in the region?
2. How is China able to feed its enormous population?
3. What are some of the basic beliefs of Confucianism?

Mongolia and Taiwan (pp. 642–646)

4. What kind of economy does Mongolia have, and what activity is at its core?
5. What kind of economy does Taiwan have?

The Koreas: North and South (pp. 647–650)

6. Why did North Korea become a communist state and South Korea a democracy?
7. Why is South Korea considered an economic tiger?

Japan (pp. 651–657)

8. Why did Japan emerge onto the world scene in the 19th century?
9. Why is the city of Kyoto in Japan important?
10. Where does Japan get its resources, and how does it use them in its industries?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.



- What are some of the ways in which China has influenced the culture of East Asia?
- What seems to be the general direction of economic development in the region?

2. Geographic Themes

- HUMAN-ENVIRONMENT INTERACTION** How have the river basins of eastern China supported a high population density?
- REGION** What are some of the natural barriers that have provided isolation or security to the different countries of the region?

3. Identifying Themes

Interaction between cultures occurred throughout the region. What are some of the consequences of this interaction? Which of the five themes are reflected in your answer?

4. Making Inferences

What might be the effect of innovations of modern life, such as computers and the Internet, on the development of democracy and free-market economies in the region?

5. Making Comparisons

How would you compare the economic prosperity and success of managed and capitalist economies in the region?

Additional Test Practice,
pp. S1–S37



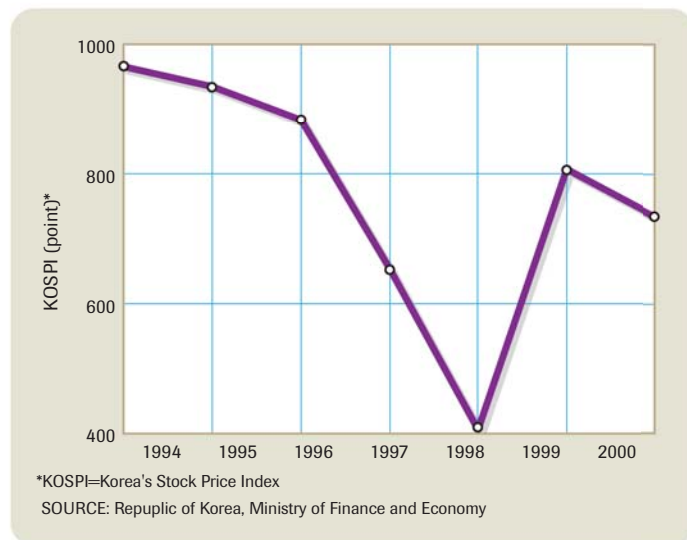
TEST PRACTICE
CLASSZONE.COM

Geographic Skills: Interpreting Graphs

Stock Market in South Korea

Use the graph at right to answer the following questions.

- ANALYZING DATA** When did the stock market in South Korea reach its lowest level?
- MAKING COMPARISONS** What was its highest level before its plunge?
- DRAWING CONCLUSIONS** What level did it reach by the year 2000? What does this suggest about the economy of South Korea?



The stock market in South Korea has seen dramatic ups and downs corresponding to the economic crises in the region in recent years.



Research stock market activity in one or more of the other countries in the region. Show your findings in a graph tracking stock market activity for the late 1990s.



INTERNET ACTIVITY

Use the links at classzone.com to do research on the Mongol conquests. Focus on the reasons for the success of their conquests and whether the results of their conquests were mainly negative or positive.

Analyzing Data Present the results of your research in a chart that shows the positive and negative effects of the Mongol conquests.

TODAY'S ISSUES

East Asia

SECTION 1

The Ring of Fire

SECTION 2

Trade and Prosperity

CASE STUDY

POPULATION AND THE
QUALITY OF LIFE

For more on these issues in
East Asia . . .



CURRENT EVENTS

CLASSZONE.COM

A bus teeters on the
edge of a highway torn
apart by an earthquake
in Kobe, Japan, in 1995.

GeoFocus

**How do people in East Asia
deal with issues of a
rapidly changing society?**

Taking Notes In your notebook, copy a
cause-and-effect chart like the one below.
Then take notes on causes and effects of
some aspect of each issue.

	<i>Causes</i>	<i>Effects</i>
<i>Issue 1: Ring of Fire</i>		
<i>Issue 2: Trade</i>		
<i>Case Study: Population</i>		



The Ring of Fire

How might people in East Asia prepare for earthquakes and volcanoes?

A HUMAN PERSPECTIVE On January 17, 1995, at 5:46 A.M., a severe earthquake rocked Kobe, Japan's sixth largest city. When the dust settled and the last of the fires burned out, about 6,000 people lay dead, and more than 40,000 suffered injuries. The government quickly began rebuilding the port city, but psychologists warned that reviving the spirit of Kobe's people would take time. Many lost family members. Entire neighborhoods vanished. A year after the quake, nearly 50,000 people were still living in temporary shelters, and anger grew against the government. Clearly, much more than glass, steel, bricks, and mortar would be needed to bring Kobe fully back to life.

Physical Forces in the Ring of Fire

Like Kobe, many Japanese cities are threatened by earthquakes. This is because Japan is part of the **Ring of Fire**—a chain of volcanoes that line the Pacific Rim. (See the map on the next page.)

SHIFTING PLATES As you learned in Unit 1, the outer crust of the earth is made up of a number of shifting tectonic plates that continually bump and slide into each other. When a dense oceanic plate meets a less dense continental plate, the oceanic plate slides under the continental plate in a process called subduction. The area where the oceanic crust is subducted is called a trench.

In East Asia, the Pacific oceanic plate encounters the Eurasian continental plate. When the oceanic plate moves under the continental plate, it crumples the continental crust, building mountains and volcanoes such as those that form the Ring of Fire.

At the same time, tremendous stress builds up along the edges of the plates. The stress keeps building until eventually the plates move suddenly and violently. The result is an earthquake.

Main Ideas

- The islands of Japan form part of a geologically active area called the Ring of Fire.
- Because of its location, Japan has faced disastrous earthquakes, volcanic eruptions, and tsunamis.

Places & Terms

Ring of Fire

Great Kanto earthquake
tsunami

HUMAN-ENVIRONMENT INTERACTION

An elderly woman is carried from a collapsing building during the earthquake in Kobe, Japan, in 1995.

What damage is apparent in the photograph?



The Geology of Japan

The Japanese islands exist because of subduction. The islands were formed by volcanoes created as the Pacific plate slid under the Eurasian plate. But the same forces that build islands can also destroy them.

VOLCANOES Living along the Ring of Fire means living with volcanic activity. From the time historical records were first kept, at least 60 volcanoes have been active on the islands of Japan. In fact, the best-known landform in Japan, Mt. Fuji, is a volcano.

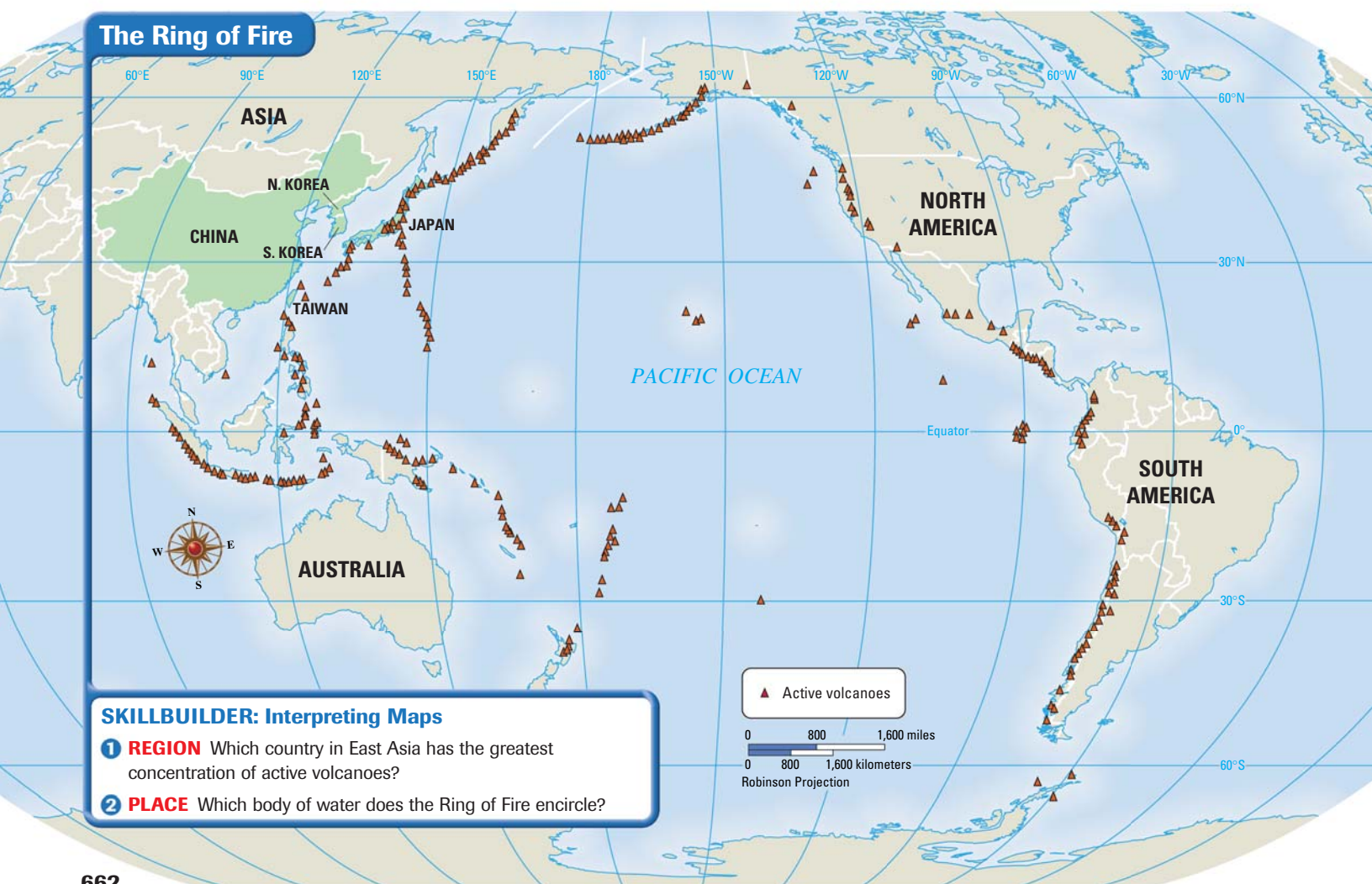
EARTHQUAKES AND TSUNAMIS Earthquakes like the one that destroyed Kobe are common in Japan. An average of 1,000 quakes occur there each year. Most are too mild to affect people's lives. Some, however, cause many deaths and massive destruction. In 1923, the **Great Kanto earthquake** and the fires it caused killed an estimated 140,000 people and left the city of Tokyo in ruins. The quake partially or completely destroyed nearly 700,000 homes. **A**

Another geological threat to Japan comes from the sea. When an earthquake occurs under the ocean floor, part of the floor moves. If the quake is strong enough, this shift may produce a **tsunami**, a huge wave of great destructive power. Underwater volcanic eruptions and coastal landslides can also cause tsunamis. Some waves have reached heights of over 100 feet.



Making Comparisons

A How many lives were lost in the Great Kanto earthquake compared to the Kobe earthquake?



Preparing for Disasters

For thousands of years, people have tried to predict when natural disasters will occur. At the dawn of the 21st century, they are still trying. Vulnerable nations like Japan are working to improve their defenses against the destructive power of geological forces.

PROBLEMS Many older buildings in Japan are not as likely to withstand earthquakes as newer buildings. In addition, some buildings have been constructed on ground or landfill that is not very stable. Underground gas lines are likely to rupture in the event of an earthquake, and leaking gas can catch fire. Crowded blocks and narrow streets spread the fires and hinder rescue operations.

SOLUTIONS Japan has established a strict building code. Whenever a quake rocks some area of the nation, engineers are quick to study how different types of buildings withstood the heaving ground beneath them. The results of their studies affect building codes governing construction materials and techniques. This has made newer buildings safer than older ones.

Because of the dangers, the Japanese people understand the importance of being prepared for disasters. Schoolchildren participate in yearly disaster drills with local fire-fighters. Organizations like the Japanese Red Cross Society and the Asia Pacific Disaster Management Center offer courses on disaster preparedness and management.

Japan and the other countries along the Ring of Fire cannot change the geology that shapes their land. They can, however, learn more about it and prepare to deal with disaster when it strikes next.

Geography TODAY

Earthquake Detectors

Seismographs are modern instruments for detecting ground movement. They record the intensity, direction, and duration of a movement of the ground during an earthquake.

But the ancient Chinese invented earthquake detectors almost 2,000 years ago. The model shown dates from A.D. 132 and was invented by Chang Heng.

Tremors caused a ball to drop from the mouth of a dragon into the mouth of one of eight frogs around the base of the bowl. This told the direction from which the earthquake came.



Assessment

1 Places & Terms

Identify and explain the following places and terms.

- Ring of Fire
- Great Kanto earthquake
- tsunami

2 Taking Notes

HUMAN-ENVIRONMENT INTERACTION Review the notes you took for this section.

	Causes	Effects
Issue 1: Ring of Fire		

- What was the effect of subduction on Japan?
- What causes tsunamis?

3 Main Ideas

- What are some of the natural disasters that can strike around the Ring of Fire?
- What role do shifting plates play in earthquakes?
- What organizations help the Japanese prepare for natural disasters?

4 Geographic Thinking

Making Inferences How will Japan respond in the future to natural disasters such as earthquakes? **Think about:**

- how it has responded so far
- its location and the frequency of earthquakes there

See Skillbuilder Handbook, page R4.



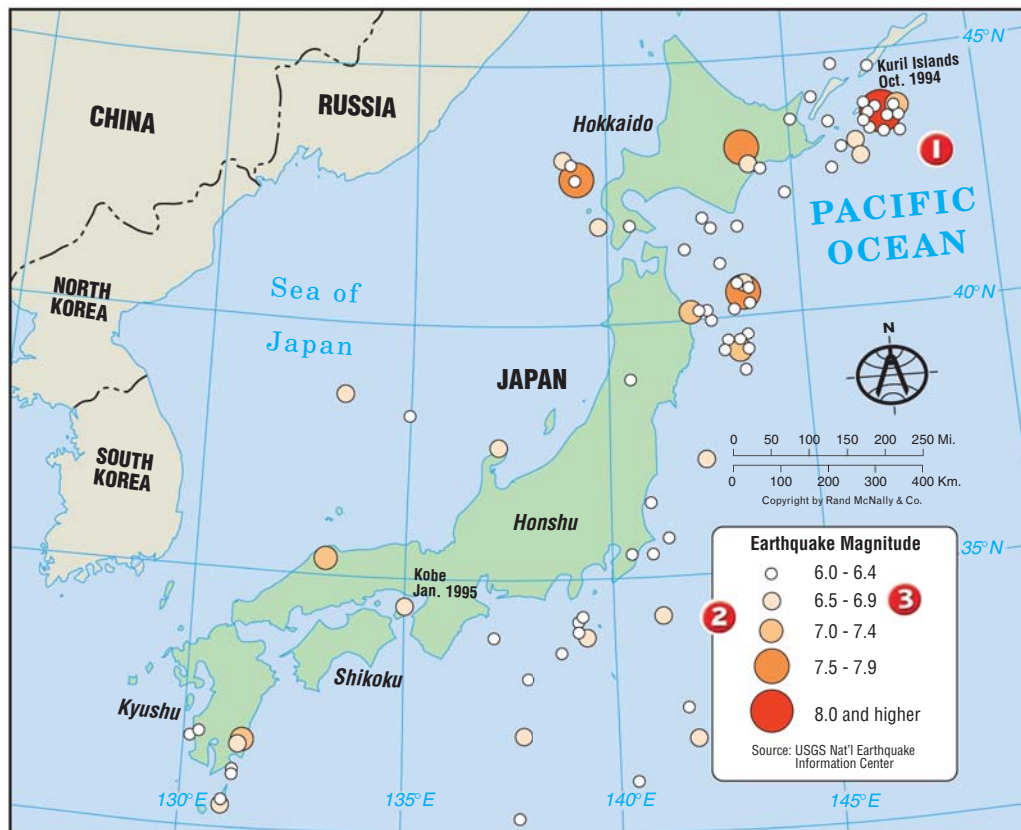
EXPLORING LOCAL GEOGRAPHY Pair with a partner and research the natural disasters that might possibly occur where you live—flood, tornado, hurricane, earthquake, and so forth. Then develop an **Emergency Procedures brochure** that lists the steps you would take to deal with such an emergency.

Interpreting a Proportional Circle Map

The earthquake that devastated Kobe, Japan, in 1995 measured 6.8 on the Richter scale, which is a scale for measuring the magnitude of earthquakes. About 6,000 people died and many thousands more were injured. Although the Kobe quake was the most destructive in recent years, there have been many others in Japan in the 1990s. Some of these were more powerful than the Kobe quake but they did not do as much damage.

THE LANGUAGE OF MAPS A **proportional circle map** shows the relative sizes of objects or events, such as earthquakes. This map shows major earthquakes in Japan during a ten-year period beginning in 1991. The larger the circle on the map, the greater the magnitude of the earthquake as measured by the scale.

Major Earthquakes in Japan, 1991–2000



Copyright by Rand McNally & Co.

- 1** A cluster of circles indicates that an area is prone to frequent quakes.
- 2** The key explains that the bigger and darker a circle is on the map, the greater the size and intensity of the quake.
- 3** Values on an earthquake magnitude scale are typically between 1 and 9. This map shows earthquakes with a magnitude of 6 and higher. Each increase of .5 represents an increase in released energy. Scales for measuring earthquakes include the Richter, the moment magnitude, and others.

Map and Graph Skills Assessment

1. Analyzing Data

What was the intensity of the earthquake that struck Kobe?

2. Making Comparisons

On which islands did the most powerful quake occur in this period? In what range did it fall, as measured by the scale?

3. Making Inferences

Why do you think the quake you identified in question 2 was not as destructive as the Kobe quake?



Trade and Prosperity

What are some benefits of global trade?

A HUMAN PERSPECTIVE At the beginning of the 1990s, the economies of East Asia were growing very rapidly. Unfortunately, there was a dark side to this prosperity. In 1995, **UNICEF (the United Nations Children's Fund)** reported that more than half a million children in East Asia were working in factories or begging on the streets. UNICEF regional director Daniel Brooks noted that, due to fast-paced economic growth, "We are seeing the erosion of family values and that includes the exploitation of children." This is one of the important issues facing the region.

Opening Doors

The process by which East Asia became an economic powerhouse took centuries. Until the 1500s, the nations of East Asia had been isolated from the rest of the world. As Western demand for Asian products grew, European traders used a variety of means—including force—to end East Asia's isolation.

Eventually, the economies of the region were to emerge as major players in the global economy. However, foreign intervention and world war lay ahead before East Asian nations achieved widespread prosperity.

OPENING TO THE WEST By the 1800s, the nations of Europe had signed treaties that gave them distinct spheres of influence in the East. These were areas where they could control trade without interference from other Western nations. In 1853, Commodore Matthew Perry set sail from the United States to Japan to persuade the Japanese to establish trade and diplomatic relations with the United States. The naval warships that accompanied Perry intimidated Japan into opening its doors to the United States and the West.

Main Ideas

- East Asian economies became global powerhouses in the 1970s and 1980s.
- The decline of Asian economies in the 1990s created a crisis that spread around the globe.

Places & Terms

UNICEF

global economy

Jakota Triangle

recession

sweatshop

INDUSTRIALIZATION AND GLOBALIZATION After World War II, the nations of East Asia began industrializing, using cheap labor to produce goods for trade. Trade between East and West steadily increased. The labels “Made in China” and “Made in Japan” on goods became very common in the United States and Europe.

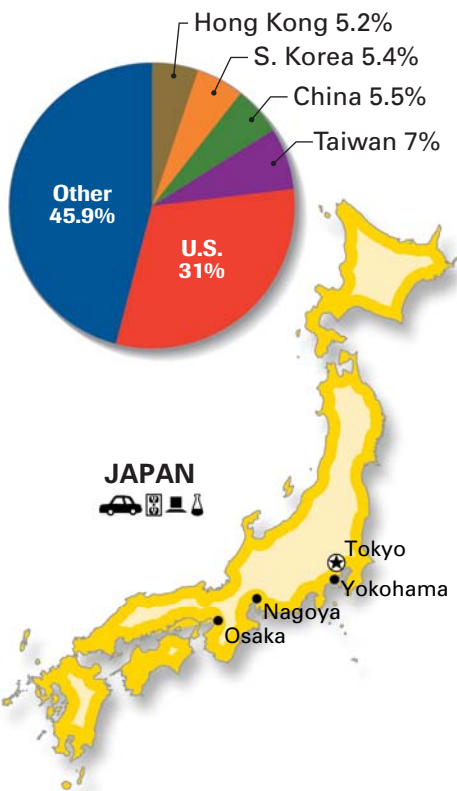
At the same time, regional economies, which had evolved from national economies, began to merge. Eventually, a **global economy** developed, in which nations became dependent on each other for goods and services. For example, Japan imported many natural resources from around the world and then transformed those resources into manufactured goods that it sold around the globe. The nations of East Asia used their supplies of cheap labor to become manufacturing powerhouses. The World Bank described this boom as an “economic miracle.”

Powerful Economies of East Asia

During the 1980s and early 1990s, many Asian economies did very well. The most powerful of the Pacific Rim nations of East Asia—Japan, Taiwan, and South Korea—enjoyed record prosperity. These three countries formed a part of a zone of prosperity referred to by some as the **Jakota Triangle**—**J**apan, **K**orea (South), and **T**aiwan. By the mid-1990s, however, these economies were experiencing problems.

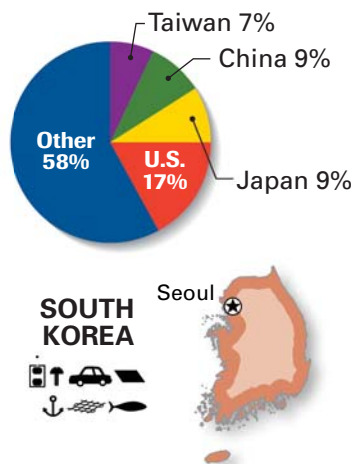
Exports from Jakota Triangle Countries

Japan's Total Exports: \$413 billion (1999)

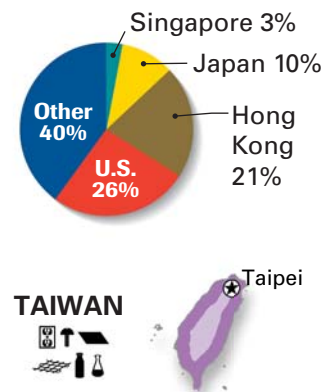


Each pie graph shows the exporting country's most important trading partners. In each case, the United States is the biggest customer; however, “Other” (countries not mentioned by name in the graph) is the largest segment of each pie. The icons show some important industries in each country.

South Korea's Total Exports: \$144 billion (1999)



Taiwan's Total Exports: \$121.6 billion (1999)



Industry			
Automobile manufacturing	Electronic products	Steel and metals	Office machinery
Chemicals	Plastics	Textiles	Machinery and equipment
Shipbuilding	Commercial fishing		



Seeing Patterns

A What were some of the factors that led to recession in the region?

ECONOMIC PROBLEMS ARISE Although some East Asian economies appeared healthy, they were burdened by debt and mismanagement. The Asian economic miracle had been based in part on efficiency and innovation. It also had been built partly on the sacrifices of very poor and very young workers, who were paid low wages.

In the mid-1990s, a series of banks and other companies went bankrupt (could not pay their debts). This sparked panic among foreign investors, who began selling their Asian stocks and currency. In some countries, riots broke out. In Japan and South Korea, ruling politicians had to resign. Japan's economy entered a **recession**—an extended decline in general business activity. The Asian economic miracle had come to an end. South Korea and Taiwan also experienced recessions. **A**

A GLOBAL RIPPLE EFFECT Because the economies of many nations are interconnected, the crisis in Asia spread throughout the world. Uncertainty led to concern at the New York Stock Exchange and other national exchanges. To prevent a global economic downturn, the World Bank and the International Monetary Fund stepped in, lending money to East Asian countries that promised reform. This began to reverse the downside, but the world had learned an important lesson—a global economy could threaten prosperity as well as improve it.

THE PROMISE OF REFORM The economic crisis led to an awareness in East Asia that serious reform was necessary. Reform would have to include increased wages for adult workers, as well as a ban on child-labor and forced-labor practices. It would also mean an end to **sweatshops**. These are workplaces where people work long hours for pennies under poor conditions. At the dawn of the 21st century, reforms had begun, and Asian economies were showing new signs of life.

In the next section, you will read about the expanding population of East Asia. The growth in population has had an impact on the quality of life in the region.



Assessment

1 Places & Terms

Identify and explain the following places and terms.

- UNICEF
- global economy
- Jakota Triangle
- recession
- sweatshop

2 Taking Notes

HUMAN-ENVIRONMENT INTERACTION

Review the notes you took for this section.

	<i>Causes</i>	<i>Effects</i>
<i>Issue 2: Trade</i>		

- Why is trade important to the economies of the region?
- How did the people of East Asia make possible the “economic miracle”?

3 Main Ideas

- How was the prosperity of East Asia linked to the wider world?
- What were some of the consequences of economic development in the region?
- What were some of the causes of economic decline in the region?

4 Geographic Thinking

Making Inferences Why might changes in the global economy have a greater effect on South Korea and Taiwan than on China and Mongolia? **Think about:**

- the global economy
- agriculture and industry



RESEARCH LINKS
CLASSZONE.COM



SEEING PATTERNS Pair with a partner and choose one country in the region that is heavily dependent on trade—for example, Japan, South Korea, or Taiwan. Then use the Internet to find out how that country's economy did in the year 2000. Give a **class report** on whether the economy is improving.

CASE STUDY

POPULATION AND THE QUALITY OF LIFE

What pressures does population put on the environment?

Trams, buses, and people crowd the streets of Hong Kong.



The Voyageur Experience
in World Geography

China: Food for a Billion Plus

Because East Asia has changed so much, it's hard to imagine how different the region looked 50 years ago. Today, some of the countries and cities of the region are among the most prosperous in the world. In Japan, South Korea, and Taiwan, the statistics on per capita income, length of life, and literacy are all high. Despite recent problems, the economies are generally prosperous, as can be seen in the glittering shopping districts and luxurious residential neighborhoods of Tokyo, Seoul, and Taipei. But it wasn't always that way. If the big problem of the past was industrializing, today it is managing population.

Patterns of Population

Many of the countries of East Asia have been so successful in dealing with the basic problems of feeding their people and industrializing that they now face other problems. Several of these problems are caused by the expanding populations in the region.

THE SITUATION AT MID-CENTURY At the middle of the 20th century, the nations of East Asia ranked among the least developed in the world. In fact, statistics on health, literacy, fertility, and economics in East Asia mirrored those of the poorest region of the world—sub-Saharan Africa. Widespread poverty was the norm. Life expectancy was short. Fertility rates were high, as were infant and maternal death rates. In 1950, East Asian women often married young and gave birth to six children on average during their lifetimes. Most economies remained rural.

Addressing Population Problems

Policy makers in the region understood that population control was key to solving a wide range of social and economic woes. Among the successful programs were those that stressed education and family planning.

ENVIRONMENTAL STRESS Unrestricted population growth put tremendous strain on the quality of life in the region and on the environment. Food production on existing farmland was barely adequate. The absence of basic sanitation fouled the region's water supplies. In some countries, such as China, the water tables were drained to dangerously low levels. Fortunately, the governments of East Asia recognized this catastrophe-in-the-making. They moved quickly to reverse course.

PROBLEMS AND POLICIES Aggressive family planning programs were begun in the region. Birth rates began leveling off and then dropping. By the year 2000, women were marrying much later and giving birth to an average of 2.5 children. In China alone, the birth rate dropped from 6.22 children per woman in 1950–1955 to just 1.82 in the year 2000.

IMPRESSIVE RESULTS This drop in birth rates, combined with industrialization, led to fast economic growth. By the 1990s, the economies of East Asia were booming, transforming social and economic conditions. In just over a generation, the region's quality of life has improved to the point where life expectancy and literacy rates are among the highest in the world.

The Quality of Life

Although these changes in East Asia have been dramatic, they have not solved all of the region's problems. Some countries in the region, such as China and Japan, are among the most populous in the world. Furthermore, life expectancy in East Asia has increased from 41 years in the period 1950–1955 to 69 years in the year 2000.

SOME ONGOING PROBLEMS The huge populations of the region continue to put pressure on the environment. Even if China were to maintain a modest growth rate of one percent a year, it would still add 13 million people to its population annually.

The growing populations are concentrated in the cities of the region, where they must be provided with housing, sanitation, and transportation. Pollution, overcrowding, and flooding are all problems that are made worse by an expanding population.

However, not all family planning programs were well received. Some citizens criticized China's one-child-per-family policy as harsh and an assault on their rights. In the face of such criticism, the region's family planning efforts were expanded.

Despite these difficulties, East Asia has shown the world that rapid social and economic progress are possible. This requires that people and their leaders join hands with the world community to make difficult decisions and put in place sound policies.

A case study project on population follows on the next two pages.

Population

Some Major Cities of East Asia, 1995–1999

City	Population (in millions)
Shanghai, China	13.58
Beijing, China	11.30
Seoul, South Korea	10.29
Tianjin, China	9.42
Tokyo, Japan	7.85
Hong Kong, China	6.84
Shenyang, China	5.12
Guangzhou, China	4.49
Wuhan, China	4.25
Pusan, South Korea	3.87
Chongqing, China	3.47
Xian, China	2.97
Nanjing, China	2.96
Taipei, Taiwan	2.60
Osaka, Japan	2.48

SOURCE: The Statesman's Yearbook (2001)

SKILLBUILDER: Interpreting Charts

- HUMAN-ENVIRONMENT INTERACTION** What are the two largest cities in South Korea?
- REGION** Which country on the chart has most of the largest cities?

SEE

PRIMARY SOURCE **A**

SEE

PRIMARY SOURCE **D**

CASE STUDY

PROJECT

Primary sources A, B, C, D, and E offer assessments of East Asia's population challenges. Use these resources along with your own research to prepare maps, graphs, and charts that tell a story about population and quality of life in one nation of East Asia.



RESEARCH LINKS
CLASSZONE.COM

A Visual Presentation

Suggested Steps

1. Choose one East Asian nation to study. Search for information that can be presented visually in charts and graphs. The visuals you create should explain some aspect of the nation's population and quality of life.
2. Use online and print resources to research your topic.
3. Look for information that shows relationships between population and quality of life. For example, one chart might illustrate declining birth rates while another shows rising literacy rates.

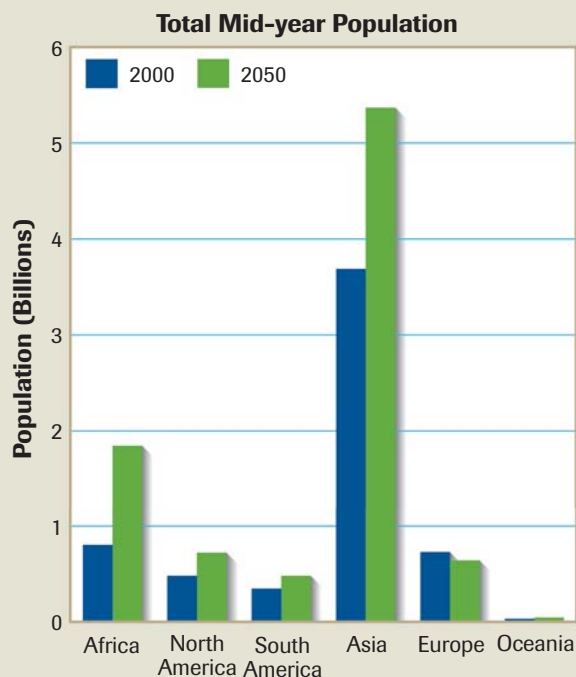
4. Include several different types of visuals: pie graphs, line and bar graphs, pictograms, population distribution maps, and so on.
5. Try to make your visuals as colorful as possible. Use color to make the information easier to understand.
6. Prepare a brief oral explanation of your visuals and the story they tell.

Materials and Supplies

- posterboard
- color markers
- computer with Internet access
- books, newspapers, and magazines
- printer

PRIMARY SOURCE A

Bar Graph This bar graph, prepared from U.S. Census Bureau statistics, shows where and by how much population is expected to grow from 2000 to 2050.



SOURCE: U.S. Bureau of the Census, International Data Base.

PRIMARY SOURCE B

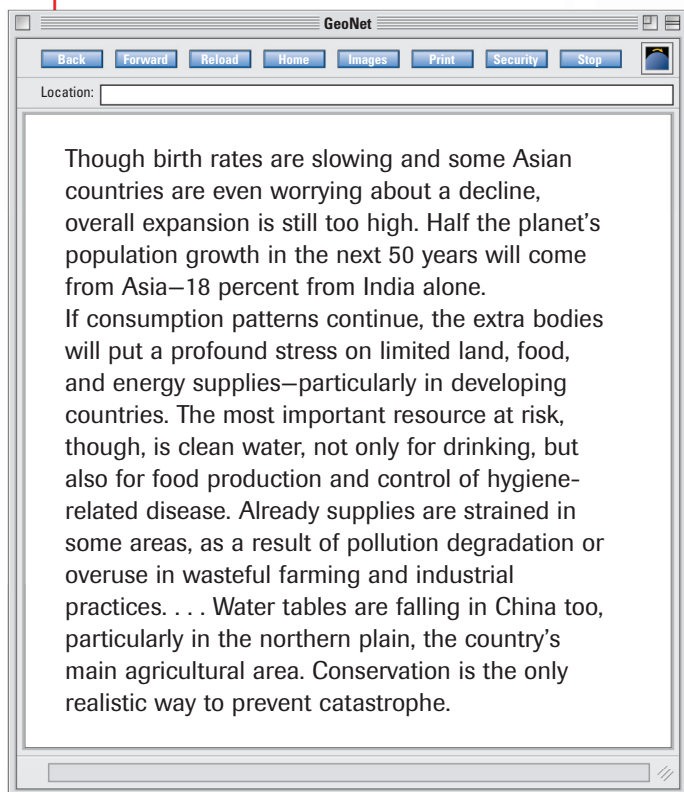
Policy Statement On a trip to Hong Kong in 1998, U.S. President Bill Clinton discussed the issue of pollution in China. He noted that overcrowding and industrialization had led to serious environmental problems that would only get worse if not addressed. The following CNN news story quotes some of Clinton's remarks.

Clinton addressed a contentious [controversial] issue separating the two countries—global warming. He also announced a series of clean air and water measures to help China, which has five of the most polluted cities in the world, according to environmentalists. . . .

"You know better than I that polluted air and water are threatening your remarkable progress," Clinton said. "Smog has caused entire Chinese cities to disappear from satellite photographs, and respiratory illness is China's number one health problem."

PRIMARY SOURCE C

News Analysis In this article from Asiaweek.com, the author addresses an interesting problem posed by population growth in Asia.



PRIMARY SOURCE D

Fact Sheet In 1997, Population Action International produced a fact sheet that helped explain the relationship between population control and development in East Asia.

- **A shift to smaller families produced three important demographic changes: slower growth in the number of school-age children, a lower ratio of dependents to working-age adults, and a reduced rate of labor-force growth.** These alone were not enough to create the educated work force, high wages and savings rates, and the capital-intensive industries that now characterize the [region]. But linked to an enterprising business sector, wise public investment, and an equitable education system, demographic change soon became economic opportunity. . . .
- **With fewer children, households placed more of their earnings in savings, and governments reduced public expenditures.** In 1960, there were only 1.3 working-age adults for each child in . . . South Korea, Taiwan, Singapore, and Hong Kong. Because families chose to have fewer children, by 1995 there were 3.1 working-age adults for each child, dramatically reducing the dependency burden and allowing families to save more of their incomes.

PRIMARY SOURCE E

Political Cartoon This cartoon was created by Nick Anderson in 1999. It shows one cartoonist's viewpoint of the effect of a rapidly expanding population on the natural environment.

Image not available for electronic use. Please refer to the image in the textbook.

PROJECT Checklist

Have I . . .

- ✓ fully researched my topic?
- ✓ created informative, colorful visuals that make my report clear and interesting?
- ✓ used charts and graphs to tell a story about population issues in East Asia?
- ✓ practiced explaining my report?
- ✓ anticipated questions others might ask and prepared answers?

VISUAL SUMMARY TODAY'S ISSUES IN EAST ASIA

Environment

The Ring of Fire

- Parts of East Asia are located along the northwestern edge of the Pacific Ocean's Ring of Fire.
- The heavily populated areas of East Asia (especially Japan) are endangered by the earthquakes, volcanic eruptions, and tsunamis along the Ring of Fire.



Economics

Trade and Prosperity

- Most of the nations of East Asia have prospered from trade with each other and with other parts of the world.
- In the second half of the 20th century, many countries in East Asia developed powerful economies.
- In the 1990s, there was a decline in the economies of the region but they have begun to recover.



Population

Case Study: Population and the Quality of Life

- East Asia has a huge population.
- Despite a reduced birth rate, the population in the region will continue to grow well into the 21st century.
- A growing population affects the quality of life in a nation.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

- | | |
|---------------------------|--------------------|
| 1. Ring of Fire | 5. global economy |
| 2. Great Kanto earthquake | 6. Jakota Triangle |
| 3. tsunami | 7. recession |
| 4. UNICEF | 8. sweatshop |

B. Answer the questions about vocabulary in complete sentences.

- How many people were killed and how many homes destroyed in the Great Kanto earthquake?
- What is the basic cause of the physical events that characterize the Ring of Fire?
- Upon what is the prosperity of the Jakota Triangle primarily based?
- Why are sweatshops profitable?
- What sorts of natural disasters occur around the Ring of Fire?
- How does Japan participate in the global economy?
- How might economic reform in East Asia affect sweatshops?
- What besides earthquake damage made the Great Kanto earthquake so destructive?
- What are three causes of tsunamis?
- Which countries in the region experienced a recession?
- What sorts of economies make up the Jakota Triangle?
- With what issues does UNICEF concern itself?

Main Ideas

The Ring of Fire (pp. 661-664)

- What causes an earthquake?
- Why are the Japanese islands so unstable?
- What are some Japanese organizations that help prepare for disasters?

Trade and Prosperity (pp. 665-667)

- What effect did Western nations have on economic development in East Asia?
- What is the connection between industrialization and globalization?
- What are some of the things that went wrong in the economies of the region?

Case Study: Population and the Quality of Life (pp. 668-671)

- What are some examples of the stress that population growth puts on the environment?
- What are some effective ways to manage population growth?
- How developed was East Asia in the middle of the 20th century?
- How had East Asia changed by the beginning of the 21st century?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.

	<i>Causes</i>	<i>Effects</i>
<i>Issue 1: Ring of Fire</i>		
<i>Issue 2: Trade</i>		

- What are some of the effects of the Ring of Fire?
- What role did labor play in the booming economies of East Asia after World War II?

2. Geographic Themes

- REGION** What are some of the ways that people respond to the dangers of living in the Ring of Fire?
- HUMAN-ENVIRONMENT INTERACTION** How does a rising population put a strain on the environment?

3. Identifying Themes

What might be some of the advantages of reducing population growth in the region? Which of the five themes apply to this situation?

4. Determining Cause and Effect

What might be the connection between population and trade in some of the economies of the region?

5. Making Inferences

Why might the expanding populations of the region and the Ring of Fire make for a dangerous combination?

Additional Test Practice,
pp. S1–S37



TEST PRACTICE
CLASSZONE.COM

Geographic Skills: Interpreting Graphs

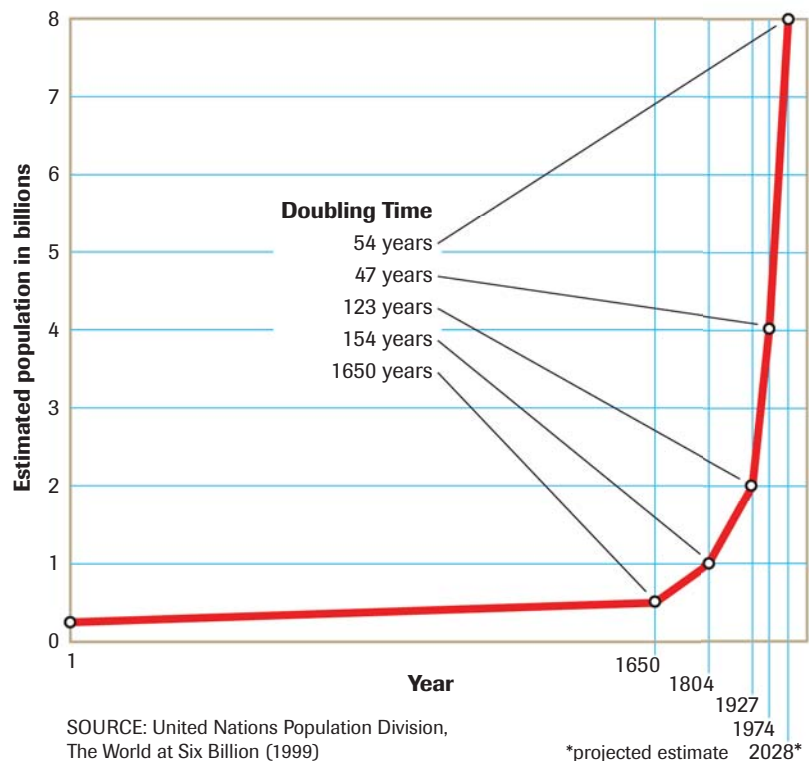
World Population and Growth

Use the graph to answer the questions.

- ANALYZING DATA** What was the population of the world in the year 1?
- MAKING COMPARISONS** How long did it take for the world's population to double from the year 1?
- MAKING COMPARISONS** How many years might it take for the world's population to double after 1974? What is the total expected to be in 2028?



Do research to create a bar graph showing population growth and doubling time in one country in the region. Compare it with a bar graph showing the same information for the United States. Display the two bar graphs side by side.



INTERNET ACTIVITY

Use the links at classzone.com to do research about the Ring of Fire. Focus on major eruptions, earthquakes, and tsunamis in the region.

Creating Multimedia Presentations Combine charts, maps, or other visual images in a presentation showing strategies to prepare for natural disasters along the Ring of Fire.



Southeast Asia, Oceania, and Antarctica

PREVIEW: TODAY'S ISSUES

UNIT ATLAS

Chapter 30
PHYSICAL GEOGRAPHY
A Region of
Extremes

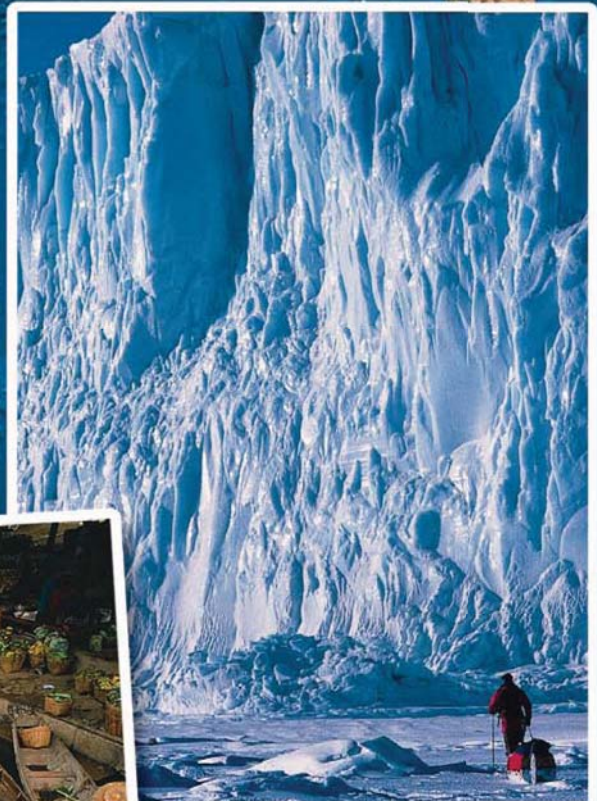
Chapter 31
HUMAN GEOGRAPHY
Migration and
Conquest

Chapter 32
TODAY'S ISSUES
Southeast Asia,
Oceania, and
Antarctica

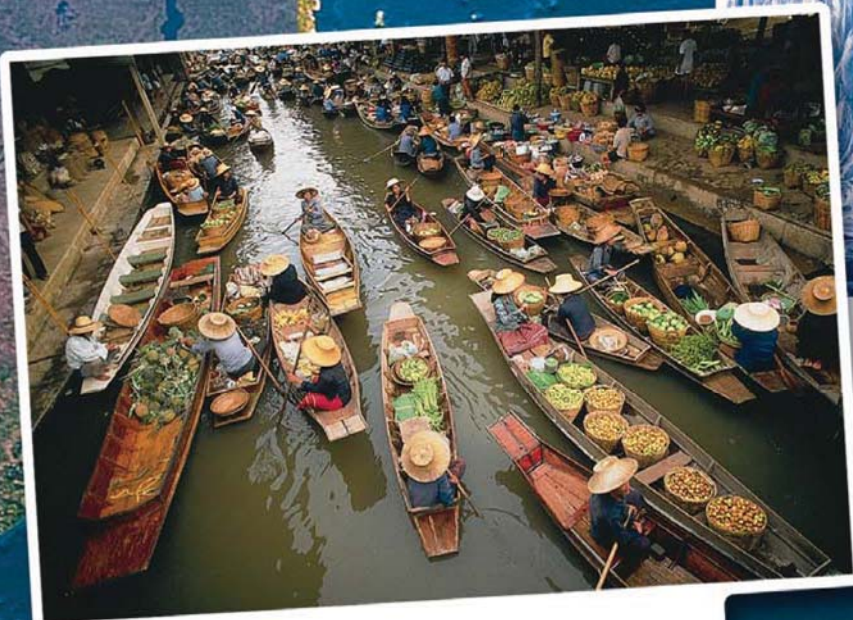
CASE STUDY

GLOBAL
ENVIRONMENTAL
CHANGE

Ranging from flat plateaus to volcanic peaks, this region has diverse landforms. The vast Pacific Ocean links the scattered parts of this region together.



REGION Towering cliffs covered with snow and ice are a distinctive characteristic of the landscape of Antarctica.



MOVEMENT Traders travel the rivers of Thailand to sell produce and other goods in that country's famous floating markets.

A topographic map showing the region of Southeast Asia, Oceania, and Antarctica. The map uses color to represent elevation, with greens and yellows for lower elevations and browns and oranges for higher elevations. The Pacific Ocean is visible to the east, and the Indian Ocean to the west. The continent of Australia is prominent in the lower right, and the Indonesian archipelago is in the center. The Antarctic continent is partially visible at the bottom.

GeoData

REGION Oceania includes the Pacific Islands not considered to be part of Southeast Asia. Some people include New Zealand and Australia, even though Australia is a continent, not an island.

LOCATION Australia is known as the “Land Down Under.” It is the only inhabited continent to lie completely in the Southern Hemisphere.

HUMAN-ENVIRONMENT INTERACTION Farmers have adapted to the region’s varied environments. They use terraced fields on steep Southeast Asian slopes and irrigate arid parts of Australia.

For more information on Southeast Asia, Oceania, and Antarctica . . .



RESEARCH LINKS
CLASSZONE.COM



Today's Issues in Southeast Asia, Oceania, and Antarctica

Today, Southeast Asia, Oceania, and Antarctica face the issues previewed here. As you read Chapters 30 and 31, you will learn helpful background information. You will study the issues themselves in Chapter 32.

In a small group, answer the questions below. Then participate in a class discussion of your answers.

Exploring the Issues

- 1. LAND CLAIMS** Search the Internet for information about Aboriginal land claims in Australia. What are the different sides in the conflict?
- 2. INDUSTRIALISM** Make a list of the possible results of industrial growth, both positive and negative. How might a country reduce the negative effects?
- 3. ENVIRONMENTAL CHANGE** Consider news stories that you've heard about global warming and the ozone hole. What are some of the predicted effects? Make a list of all the effects you can remember.

For more on these issues in Southeast Asia, Oceania, and Antarctica . . .



LAND CLAIMS



Should native people be given back their ancestors' land?

These two Aboriginal men are elders of the Wuthathi people. They have come to bury the skull of an ancestor in their homeland. Aboriginal people feel a strong spiritual connection to their land and do not want to be separated from it even in death.

INDUSTRIALISM



How does industrialization affect cities?

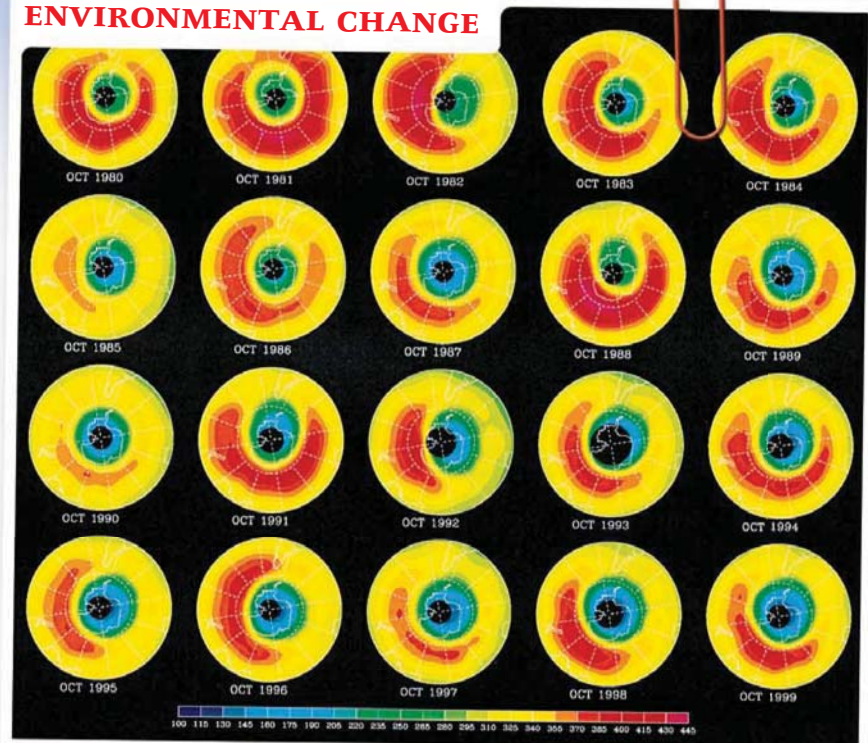
This slum in Jakarta, Indonesia, shows how difficult it is to provide adequate housing for the thousands of people who move to cities seeking factory jobs.

CASE STUDY

How have people changed the atmosphere?

The green and blue areas in these satellite images show where the ozone layer over Antarctica is thinnest. Ozone in the stratosphere, a layer of the atmosphere, protects the living things of earth from harmful ultraviolet radiation.

ENVIRONMENTAL CHANGE



Unit ATLAS

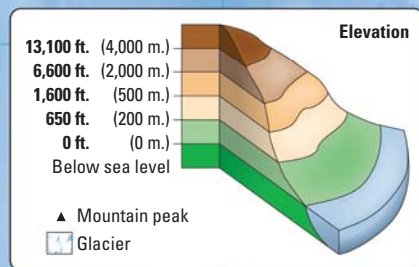
Patterns of Physical Geography

Use the Unit Atlas to add to your knowledge of Southeast Asia, Oceania, and Antarctica. As you look at the maps and charts, notice geographic patterns and specific details about the region. For example, the chart gives details about large islands in the region.

After studying the pictures, graphs, and physical map on these two pages, jot down in your notebook answers to the questions below.

Making Comparisons

1. How does the population of the region compare to that of the United States?
2. What is the world's largest island? How does its area compare to the combined area of New Guinea, Borneo, and Sumatra?
3. Which countries of this region would you consider flat? Which would you consider mountainous?



0 400 800 miles
0 400 800 kilometers
Miller Projection



For updated statistics on Southeast Asia, Oceania, and Antarctica . . .



Southeast Asia, Oceania, and Antarctica: Physical

Comparing Data

Landmass

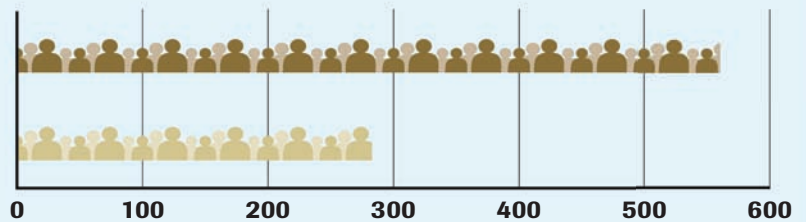
Southeast Asia and Oceania	5,065,224.45 sq mi
Continental United States	3,165,630 sq mi



Comparing Data

Population

Southeast Asia and Oceania*	558,475,000
United States	281,422,000



*Antarctica is not included because it has no permanent population.

Islands

World's Largest
Greenland
839,999 sq mi

U.S. Largest
Hawaii
4,021 sq mi

New Guinea
341,631 sq mi

Borneo
290,320 sq mi

Sumatra
182,542 sq mi



Unit ATLAS



Patterns of Human Geography

Study the map on page 681 to learn about ancient kingdoms and empires of Southeast Asia and the map on both pages to learn about the present-day nations of the region. Then write in your notebook the answers to these questions.

Making Comparisons

1. Which ancient kingdoms or empires have names similar to present-day countries in Southeast Asia? How do their locations compare?
2. Which are the largest countries in the region?
3. Which country includes part of the Asian mainland and part of a large island?



Southeast Asia, Oceania, and Antarctica: Political



Unit ATLAS



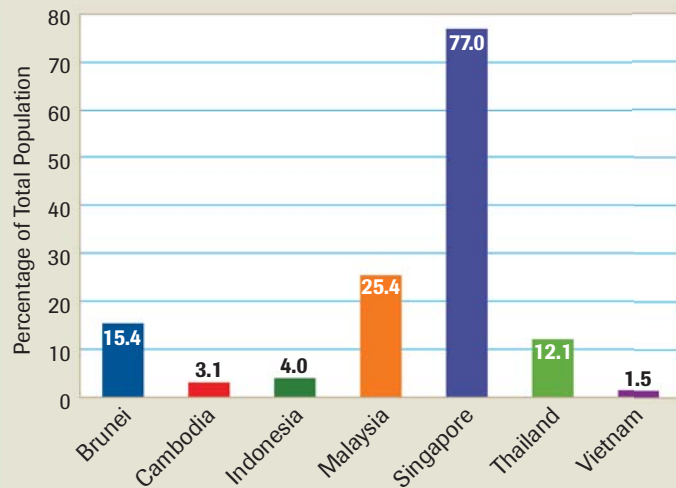
Regional Patterns

These two pages contain graphs and thematic maps. The graphs show the percentage of ethnic Chinese in Southeast Asian populations and the number of active volcanoes in the region. One map shows the climates of the region. The other shows the major religions of the region. After studying the graphs and maps, jot down in your notebook the answers to the questions below.

Making Comparisons

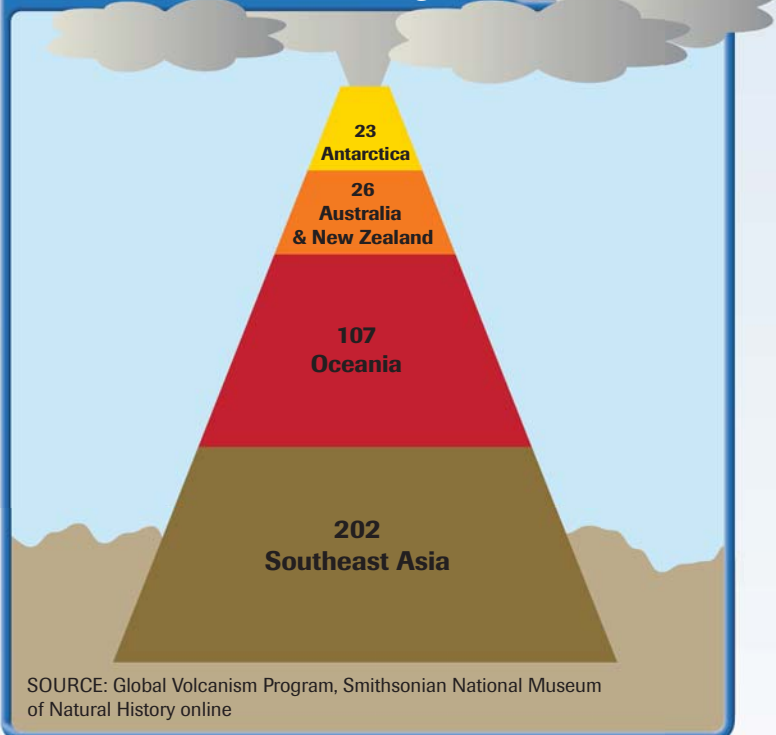
1. Which Southeast Asian nation has the highest proportion of Chinese in its population?
2. What percentage of the region's active volcanoes are found in Southeast Asia?
3. Where are the coldest climates to be found in the region?
4. Would you describe this as a region of religious diversity? Why or why not?

Ethnic Chinese in Southeast Asia



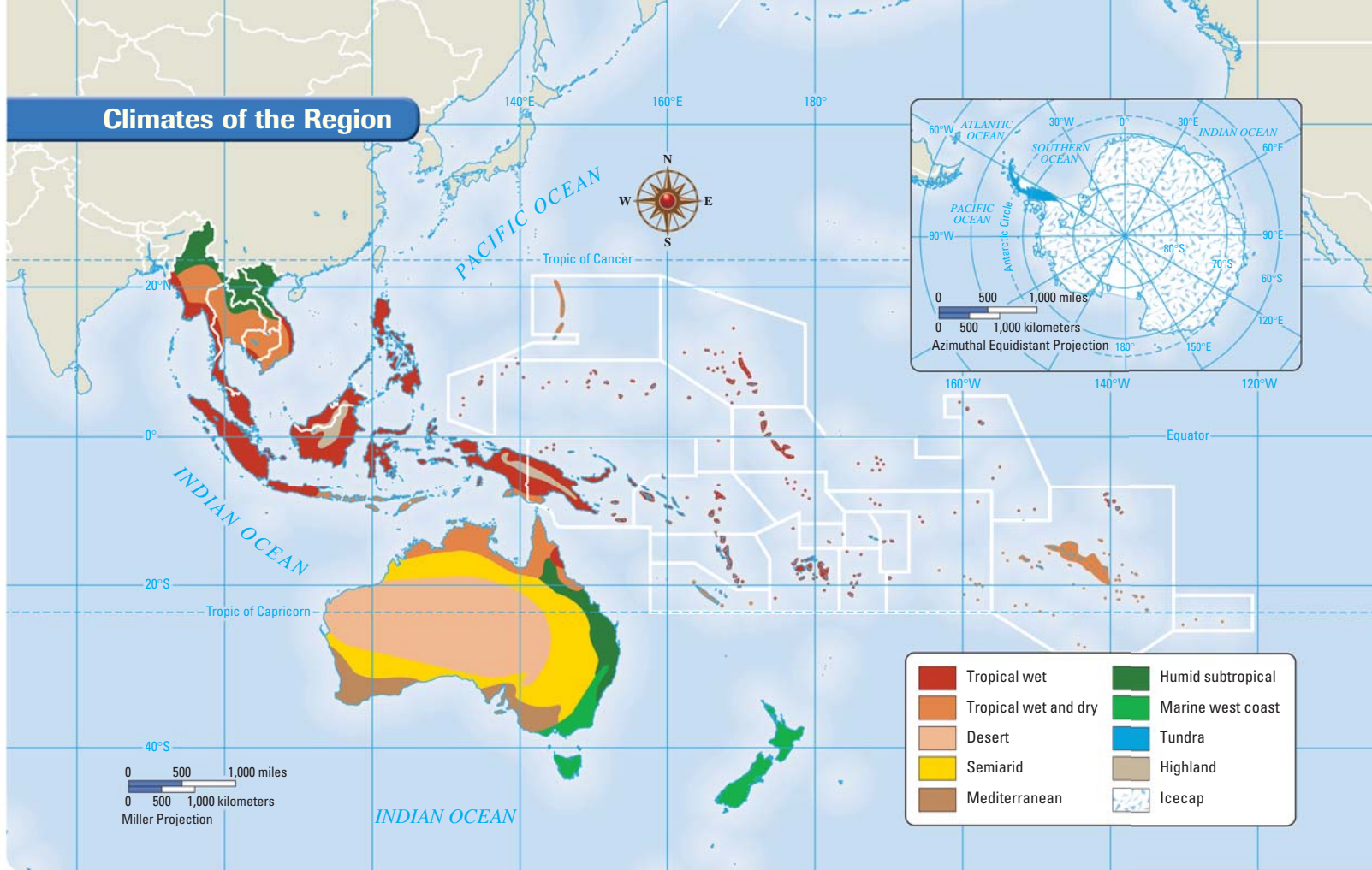
SOURCE: *Britannica Book of the Year 2000*; Ethnologue Online

Active Volcanoes in the Region

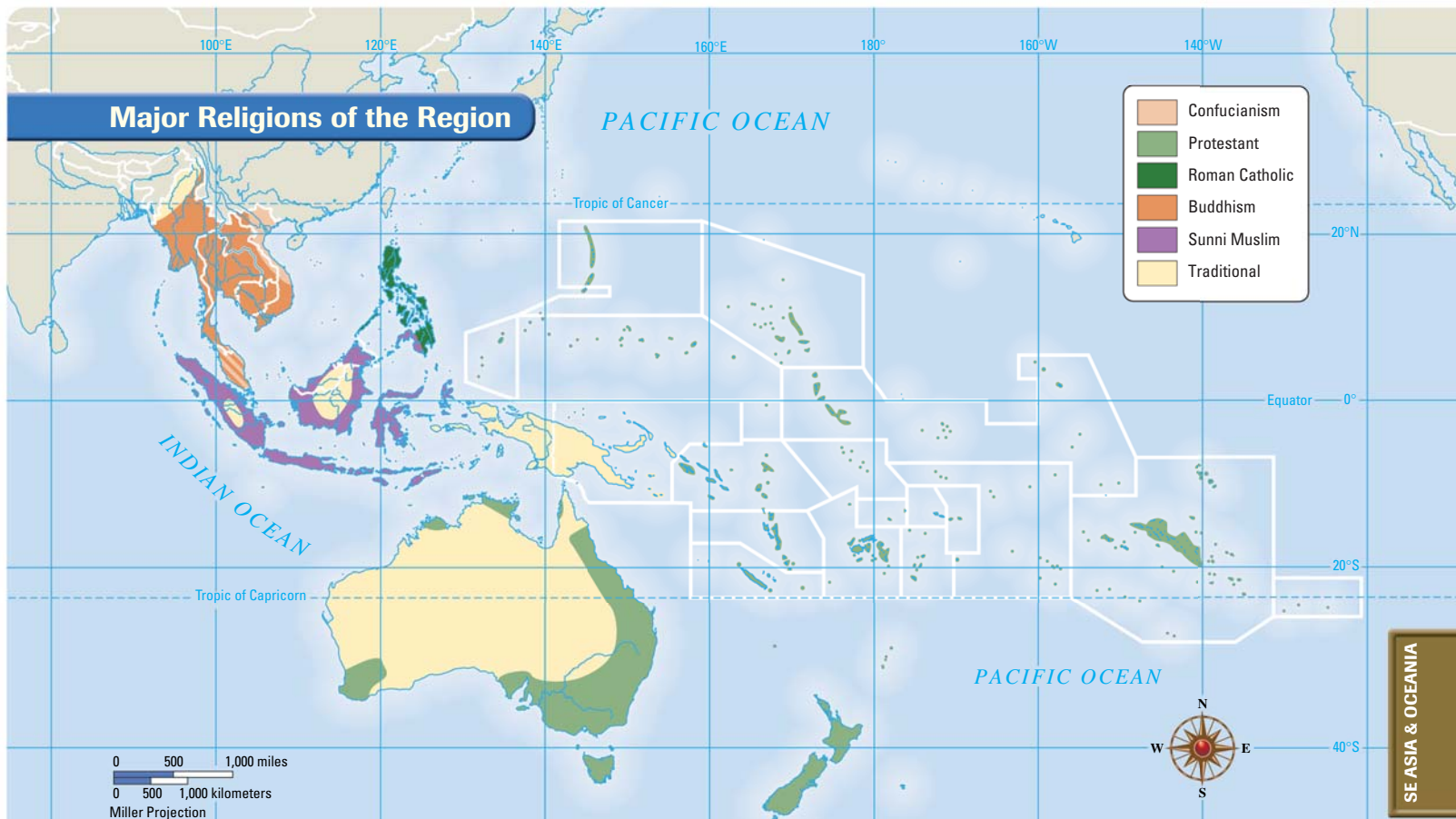


SOURCE: Global Volcanism Program, Smithsonian National Museum of Natural History online

Climates of the Region



Major Religions of the Region





Regional Data File

Study the charts on the countries of this region.

Making Comparisons

1. Compare the population and total area of Australia to that of the United States. What conclusions can you draw?
2. Make a list of the top three countries in population. What is the difference in population between the top two countries?
3. Make a list of the top three countries in total area. How does this list compare to your list of the most populous countries?

(continued on page 686)

Notes:

^a A comparison of the prices of the same items is used to figure these data.



















^b Includes land and water, when figures are available.

^{*} East Timor became an independent country on May 20, 2002.

For updated statistics on Southeast Asia, Oceania, and Antarctica . . .



Country Flag	Country/ Capital	Population (2000)	Life Expectancy (years) (2000)	Birthrate (per 1,000, pop.) (2000 estimate)	Infant Mortality (per 1,000 live births) (2000)
	Australia Canberra	19,200,000	79	13	5.3
	Brunei Bandar Seri Begawan	331,000	71	25	24.0
	Cambodia Phnom Penh	12,127,000	56	38	80.8
	East Timor* Dili	737,000	50	25	120.9
	Fiji Suva	811,000	67	22	12.9
	Indonesia Jakarta	212,207,000	64	24	45.7
	Kiribati Tarawa	92,000	62	33	62.0
	Laos Vientiane	5,218,000	51	41	104.0
	Malaysia Kuala Lumpur	23,253,000	73	25	7.9
	Marshall Islands Majuro	68,000	65	26	30.5
	Fed. States of Micronesia Palikir	119,000	66	33	46.0
	Myanmar Yangon	48,852,000	54	30	82.5
	Nauru (no capital)	12,000	61	19	25.0
	New Zealand Wellington	3,836,000	77	15	5.5
	Palau Koror	19,000	67	18	19.2
	Papua New Guinea Port Moresby	4,810,000	56	34	77.0
	Philippines Manila	80,298,000	67	29	35.3
	Samoa Apia	176,000	68	31	25.0
	Singapore Singapore City	4,001,000	78	13	3.2
	Solomon Islands Honiara	434,000	71	37	25.3

Economic and Social Indicators							
Doctors (per 100,000 pop.) (1994–1999)	GDP ^a (billions \$US) (1998–1999)	Import/Export ^a (billions \$US) (1998–1999)	Literacy Rate (percentage) (1996–1998)	Televisions (per 1,000 pop.) (1998)	Passenger Cars (per 1,000 pop.) (1996–1997)	Total Area ^b (square miles)	
240	416.2	67.0 / 58.0	100	495	474	2,967,909	
85	5.6	1.24 / 2.04	88	239	477	2,226	
30	8.2	1.2 / 0.821	65 (1993)	9	1.2	69,898	
N.A.	0.415 (2001 est.)	0.237 / .008 (2001 est.)	48	79	23	5,641	
48	5.9	0.612 / 0.393	92	18	38	7,055	
16	610.0	21.6 / 48.0	84	66	12	779,675	
30	0.074	0.033 / 0.006	90	N/A	N/A	277	
24	7.0	0.497 / 0.271	57	9	1.7	91,428	
66	229.1	61.5 / 83.5	84	164	143	128,727	
42	0.105	0.058 / 0.028 (1997)	93 (1994)	N/A	N/A	70	
57	0.240 (1997)	0.151 / 0.073 (1996)	90 (1991)	N/A	N/A	1,055	
30	121.0 (1996)	1.829 / 0.886 (1996)	83	5	0.7	261,789	
157	0.100 (1993)	0.019 / 0.025 (1991)	99	N/A	N/A	8.2	
217	63.8	11.2 / 12.2	100	514	391	103,736	
110	0.160 (1997)	0.072 / 0.014 (1996)	98 (1990)	N/A	N/A	191	
7	11.6	1.0 / 1.9	72	4	5	178,260	
123	282.0	30.7 / 34.8	95	49	9	115,651	
34	0.485	0.097 / 0.021	98	41	7	1,209	
163	98.0	111.0 / 114.0	91	361	95	225	
14	1.21	0.144 / 0.142	54	6	N/A	11,500	









Regional Data File

Making Comparisons

(continued)

4. Which countries have a literacy rate below 60 percent?
5. For the countries you identified in question 4, look at their ratio of doctors to population. Is it high or low compared to other countries? What might be the relationship between literacy rate and number of doctors?

Country Flag	Country/ Capital	Population (2000)	Life Expectancy (years) (2000)	Birthrate (per 1,000, pop.) (2000 estimate)	Infant Mortality (per 1,000 live births) (2000)
	Thailand Bangkok	62,043,000	73	16	22.4
	Tonga Nuku'alofa	108,000	71	27	19.0
	Tuvalu Fongafale	10,838	64	22	24.8
	Vanuatu Port-Vila	195,000	65	35	39.0
	Vietnam Hanoi	78,697,000	66	20	36.7
	United States Washington, D.C.	281,422,000	77	15	7.0

Territories and Possessions in Oceania

Name	Status
American Samoa	U.S. territory*
Cook Islands	Self-governing area in free association with New Zealand
French Polynesia	French overseas territory
Guam	U.S. territory*
Irian Jaya	Indonesian province
Midway Islands	U.S. possession*
New Caledonia	French overseas territory
Niue	Self-governing area in free association with New Zealand
Norfolk Island	Australian territory
Northern Mariana Islands	U.S. commonwealth*
Pitcairn Islands	British overseas territory
Tokelau	New Zealand territory
Wake Island	U.S. possession*
Wallis and Futuna	French overseas territory

* A commonwealth is a self-governing political unit in voluntary association with the United States; a U.S. territory is not a state but has a governor and a legislature; the U.S. possessions in the Pacific are administered by the Navy.

SOURCE: *World Book Encyclopedia 2000*







Sources:

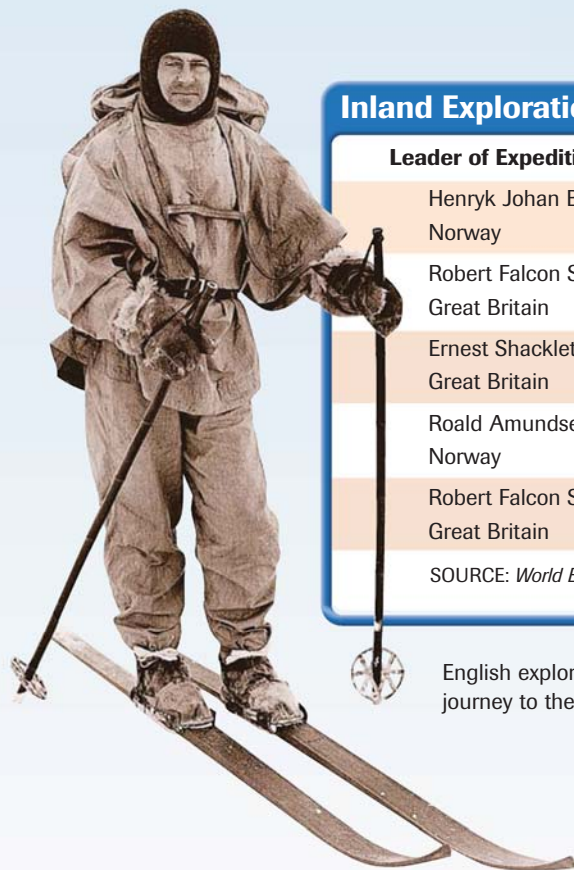
ASEAN statistics online
Europa World Year Book 2000
Human Development Report 2000,
 United Nations
International Data Base, 2000, U.S.
 Census Bureau online
*Merriam-Webster's Geographical
 Dictionary, 1997*
Statesman's Yearbook 2001
2000 World Population Data Sheet,
 Population Reference Bureau
 online
WHO Estimates of Health Personnel,
 World Health Organization online
*World Almanac and Book of Facts
 2001*
World Factbook 2000, CIA online
 N/A = not available

Notes:

^aA comparison of the prices of the same items is used to figure these data.

^bIncludes land and water, when figures are available.

Doctors (per 100,000 pop.) (1994–1999)	GDP ^a (billions \$US) (1998–1999)	Import/Export ^a (billions \$US) (1998–1999)	Literacy Rate (percentage) (1996–1998)	Televisions (per 1,000 pop.) (1998)	Passenger Cars (per 1,000 pop.) (1996–1997)	Total Area ^b (square miles)	
24	388.7	45.0 / 58.5	94	189	25	198,455	
44	0.238	0.069 / 0.008	93 (1992)	16	31	270	
30	0.008 (1995)	0.004 / 0.0002 (1989)	95	N/A	N/A	9	
12	0.245	0.076 / 0.034	36	13	21	5,700	
48	143.1	11.6 / 11.5	94	43	1	130,468	
251	9,255.0	820.8 / 663.0	97	847	489	3,787,319	



Inland Explorations of Antarctica

Leader of Expedition	Dates of Expedition	Outcome of Expedition
Henryk Johan Bull, Norway	1895	First known landing on Antarctic mainland
Robert Falcon Scott, Great Britain	1901-1904	First inland exploration of Antarctica, of Ross Ice Shelf and Transantarctic Mountains
Ernest Shackleton, Great Britain	1907-1909	Turned back 97 miles from the South Pole
Roald Amundsen, Norway	1911-1912	First to reach the South Pole
Robert Falcon Scott, Great Britain	1911-1912	Reached the South Pole a month after Amundsen; died on return journey

SOURCE: *World Book Encyclopedia 2000*

English explorer Robert Falcon Scott, shown here on his journey to the South Pole in 1912, died on this expedition.

PHYSICAL GEOGRAPHY OF SOUTHEAST ASIA,
OCEANIA, AND ANTARCTICA

A Region of Extremes

SECTION 1

Landforms and
Resources

SECTION 2

Climate and
Vegetation

SECTION 3

Human–Environment
Interaction

Scuba divers in Australia's Great Barrier Reef can observe some of its more than 1,500 species of fish and approximately 400 species of coral.

GeoFocus

How does physical geography vary throughout this vast region?

Taking Notes Copy the graphic organizer below into your notebook. Use it to record facts about Southeast Asia, Oceania, and Antarctica.

Landforms	
Resources	
Climate and Vegetation	
Human–Environment Interaction	



Landforms and Resources

A HUMAN PERSPECTIVE The Aeta (EE•duh) people of the Philippines lived on the volcano Mount Pinatubo for generations. They knew this volcano so well that they timed the planting and harvesting of their crops by the amount of steam rising from a vent on its slope. In 1991, the Aeta noticed changes in the mountain and concluded that it was about to erupt. Tens of thousands of Aeta fled their homes as did countless other Filipinos. Pinatubo did erupt for the first time in 600 years, spewing ash for miles. Since then, many of the Aeta have formed new communities, but they still miss their homeland. As their story shows, the geologic processes that destroy landforms also disrupt human lives.

Main Ideas

- This region includes two peninsulas of Asia, two continents, and more than 20,000 islands.
- Its landforms include mountains, plateaus, and major river systems.

Places & Terms

archipelago	low island
Oceania	Great Barrier Reef
high island	

CONNECT TO THE ISSUES

INDUSTRIALIZATION

Some countries of this region have used their resources to develop industry, with mixed results.

Southeast Asia: Mainland and Islands

Southeast Asia has two distinct subregions: the southeastern corner of the Asian mainland and a great number of islands. Both the mainland and the islands have many high mountains.

PENINSULAS AND ISLANDS The most noticeable feature of mainland Southeast Asia is that it lies on two peninsulas. The Indochinese Peninsula, located south of China, has a rectangular shape. In contrast, the Malay Peninsula is a narrow strip of land about 700 miles long, stretching south from the mainland and then curving southeast. It serves as a bridge between the mainland and islands.

Most of the islands of Southeast Asia are found in archipelagoes. An **archipelago** is a set of closely grouped islands, which sometimes form a curved arc. The Philippines and the islands of Indonesia are part of the Malay Archipelago. (See the map on page 680.) A few Southeast Asian islands, such as Borneo, are actually the high points of a submerged section of the Eurasian plate.

MOUNTAINS AND VOLCANOES On the map at right, you can see that the mainland has several mountain ranges, such as the Annamese Cordillera, running roughly north and south. These ranges fan out from a mountainous area to the north.

Southeast Asian Mountains and Rivers



SKILLBUILDER: Interpreting Maps

- 1 PLACE** Which mountain chain lies east of the Mekong River?
- 2 LOCATION** How would you describe the relative location of the Chao Phraya?

Island Formation in the Pacific

High (volcanic) Islands



1. Magma sometimes erupts through cracks in the ocean floor.



2. Over time, layers of lava can build up to form a volcanic cone.

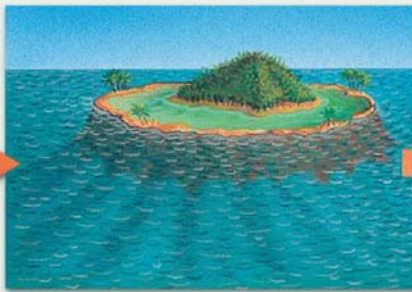


3. Some volcanic cones rise above sea level and become islands.

Low (coral) Islands



1. Some corals form reefs on the sides of volcanic islands.



2. As the island erodes, the reef continues to grow upward.



3. In time, only the low islands of the reef remain.

On the islands, most of the mountains are of volcanic origin. Southeast Asia is part of the Pacific Ring of Fire that you read about in Chapter 29. Volcanic eruptions and earthquakes are natural disasters that frequently occur in this region. (See pages 710–711.)

RIVERS AND COASTLINES The mainland has several large rivers that run from the north through the valleys between the mountain ranges. Near the coast these rivers spread out into fertile deltas. For example, the Mekong (MAY•KAWNG) River begins in China and crosses several Southeast Asian nations before becoming a wide delta on Vietnam's coast. Millions of people rely on the Mekong for farming and fishing.

Southeast Asia's peninsulas and islands give it a long, irregular coastline with many ports. As you can imagine, this has encouraged a great deal of seagoing travel and trade.

RESOURCES Fertile soil is a valuable resource in Southeast Asia. Volcanic activity and flooding rivers both add nutrients back to the soil and keep it rich. Southeast Asians also have access to large numbers of fish in the rivers and nearby seas. Parts of the region have mineral resources, such as petroleum, tin, and gems, which industry can use.

BACKGROUND

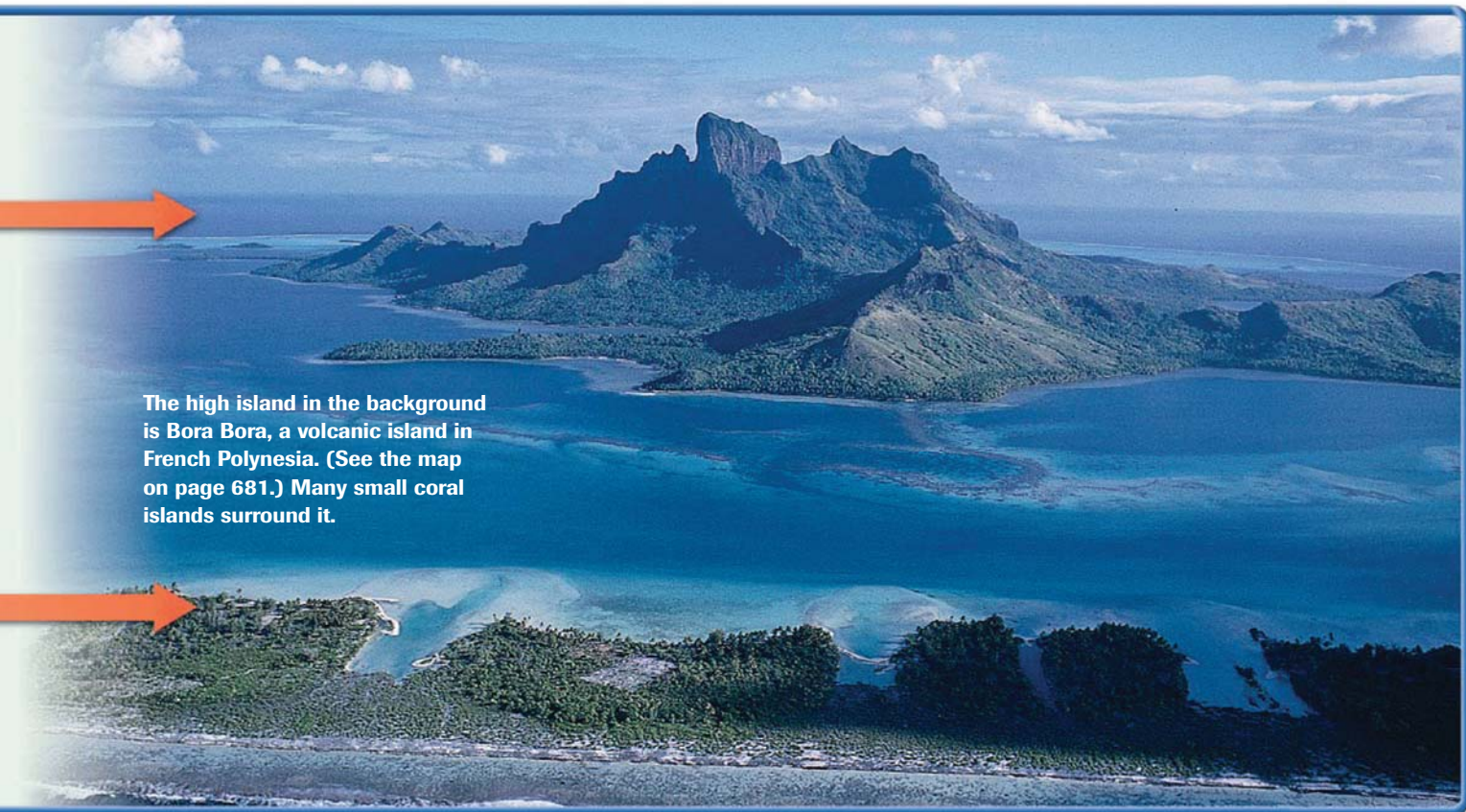
The Mekong River forms part of the boundary between Myanmar and Laos and between Laos and Thailand.

Lands of the Pacific and Antarctica

No one knows how many islands exist in the Pacific Ocean, but some geographers estimate that there are more than 20,000. As a group, the Pacific Islands are called **Oceania**. (The Philippines, Indonesia, and other islands near the mainland are not considered part of Oceania because their people have cultural ties to Asia.) In the southwestern

BACKGROUND

Oceania's islands are also called the South Sea Islands.



The high island in the background is Bora Bora, a volcanic island in French Polynesia. (See the map on page 681.) Many small coral islands surround it.

Pacific lie New Zealand and Australia, which are often considered part of Oceania, even though Australia is a continent, not an island.

OCEANIA'S MANY ISLANDS One reason geographers don't know the number of islands in Oceania is that it changes. Erosion causes some islands to vanish, while other forces create new islands. Most Pacific islands fall into two categories: **high islands** are created by volcanoes, and **low islands** are made of coral reefs. Although a few of Oceania's islands are large, most are small. If you added the land area of all the islands together, the total would be smaller than the area of Alaska.

Oceania is not rich in resources. The low islands have poor soil, and most of the islands lack minerals. But New Caledonia has nickel, chromium, and iron; New Guinea has copper, gold, and oil; Nauru has phosphate; and both Fiji and the Solomon Islands have gold. The general scarcity of resources has made it difficult to develop industry.

MAJESTIC NEW ZEALAND New Zealand has two main islands, North Island and South Island. Running down the center of South Island is a 300-mile-long mountain range, the Southern Alps. This range has 16 peaks over 10,000 feet high and more than 360 glaciers. Several rivers flow down the eastern slopes to the ocean.

North Island has hilly ranges and a volcanic plateau, but it is much less mountainous than South Island. North Island has fertile farmland and forest that support the lumber industry. In addition, its coastline has natural harbors that are used for seaports. Like South Island, North Island has many rivers running from the mountains to the sea. **A**

New Zealand has few mineral resources. However, its swift-flowing rivers have allowed its people to build dams that generate electricity.



Seeing Patterns


A Judging from the information in this paragraph, what products do you think New Zealand exports?

Also, North Island has a volcanic area with underground steam. Engineers have found ways to use this steam to power generators.

FLAT AUSTRALIA The land mass known as Australia is the smallest continent on earth. It is also the flattest. Near the eastern coast, running roughly parallel to it, is a chain of highlands called the Great Dividing Range. Unlike New Zealand's mountains, few of these peaks rise higher than 5,000 feet. To the west of this range stretches a vast expanse of plains and plateaus, broken by only a few mountains.

Many other differences exist between Australia and New Zealand. For example, Australia has very few rivers. The largest is the Murray River, which flows into the Southern Ocean. Forestry is not a major industry in Australia, but the country is rich in minerals. It is the world's leading supplier of bauxite, diamonds, opals, lead, and coal.


Along Australia's northeast coast lies one of the wonders of nature. The **Great Barrier Reef** is often called the world's largest coral reef, although it is really a 1,250-mile chain of more than 2,500 reefs and islands. Some 400 species of coral are found there.

ICY ANTARCTICA Antarctica is the fifth largest continent. Generally circular in shape, it is centered on the South Pole. Its topography is hidden by a thick ice sheet, but under the ice lies a varied landscape. The Transantarctic Mountains divide the continent in two. East Antarctica is a plateau surrounded by mountains and valleys. West Antarctica is a group of separate islands linked only by the ice that covers them. 

Antarctica's ice sheet is the largest supply of fresh water in the world. Geologists believe that resources such as coal, minerals, and perhaps even petroleum may lie beneath the ice. But in 1991, 26 nations agreed not to mine Antarctica for 50 years. In the next section, you will read about Antarctica's harsh climate as well as the climates of Southeast Asia, Oceania, Australia, and New Zealand.

BACKGROUND
People in Australia and New Zealand call the waters around Antarctica the Southern Ocean.



Making Comparisons
 What are similarities and differences between the physical geographies of Australia and Antarctica?



Assessment

1 Places & Terms

Identify these terms and explain their importance in the region's physical geography.

- archipelago
- Oceania
- high island
- low island
- Great Barrier Reef

2 Taking Notes

PLACE Review the notes you took for this section.

Landforms	
Resources	

- What river begins in China and flows to the Vietnamese coast?
- What are the two main islands of New Zealand?

3 Main Ideas

- What are the main resources of Southeast Asia?
- What different resources do Australia and New Zealand have?
- What landform divides the continent of Antarctica?

4 Geographic Thinking

Seeing Patterns By what processes do low islands replace high islands? **Think about:**

- the process that causes some islands to disappear
- the diagrams on page 690



RESEARCH LINKS
CLASSZONE.COM



SEEING PATTERNS Do research to learn about the ways that humans have damaged the Great Barrier Reef. Write the script for a **public service announcement**, telling visitors to Australia what behaviors to avoid. You might also include visuals of the Great Barrier Reef. Use standard grammar, spelling, punctuation, and sentence structure in your script.

Interpreting a Relief Map

Two activities that are popular in New Zealand are mountain climbing and skiing. The relief map below shows mountainous areas, which are suitable to those activities. The mountains also provide some regions of New Zealand with spectacular scenery—especially in the Southern Alps of South Island.

THE LANGUAGE OF MAPS A **relief map** illustrates the differences in elevation that are found in a region. It does this with a combination of colors and shading. The lowest elevations are shown in green, and various shades of brown represent progressively higher elevations. The gray shading shows the locations of mountainous landforms.

New Zealand: Physical



- 1 The key illustrates the colors used on the map and the range of elevation that each color represents.
- 2 The symbol for peak is ▲. The map also shows the peaks' names and elevations.
- 3 This map clearly shows the difference between the physical geographies of North Island and South Island.

Map and Graph Skills Assessment

1. Seeing Patterns

Which of New Zealand's two large islands is more mountainous?

2. Drawing Conclusions

How high is Mount Cook?

3. Making Inferences

Which island is better suited to farming? Why?



Climate and Vegetation

A HUMAN PERSPECTIVE During the Vietnam War, American troops were sent to fight in unfamiliar Southeast Asia. Among the hardships they endured was the tropical climate. Few had ever lived in a place that had a monsoon season with constant rain. One soldier wrote to his wife, “We live in mud and rain. I’m so sick of rain that it is sometimes unbearable. At night the mosquitoes plague me. . . . The rain drips on me until I go to sleep from exhaustion.”

Another soldier wrote to a friend about the vegetation: “Try to imagine grass 8 to 15 feet high so thick as to cut visibility to one yard, possessing razor-sharp edges. Then try to imagine walking through it.” As these letters make clear, climate and vegetation can create serious obstacles to military operations—or other activities.

Widespread Tropics

Although the conditions that American soldiers encountered seemed unusual to them, they really aren’t rare. Vietnam is just one of many countries in this region with a tropical climate. In fact, tropical climates cover most of Southeast Asia and Oceania. Tropical climates fall into two categories, depending on when it rains during the year.

YEAR-ROUND RAINS A tropical wet climate is found in coastal parts of Myanmar, Thailand, Vietnam, and Oceania, and in most of Malaysia, Indonesia, and the Philippines. Temperatures are high. For example, most of Southeast Asia has an average annual temperature of 80°F. Parts of Southeast Asia receive over 100 inches of rain a year, with some places receiving more than 200 inches.

Although the climate is fairly consistent, variations do exist within the region. Elevation, ocean breezes, and other factors can create cooler temperatures. For example, Indonesia has some locations at such a high elevation that they have glaciers. (See the infographic on page 56.)

WET AND DRY SEASONS Bordering the wet climate is the tropical wet and dry climate, in which monsoons shape the weather. As you read in Unit 8, monsoons are winds that cause wet and dry seasons. This climate is found in parts of Myanmar, Thailand, Laos, Cambodia, and Vietnam—generally to the north or inland of the wet climate. Parts of Oceania and northern Australia also have this climate.

Although temperatures are consistently hot, rainfall varies greatly within the climate zone. Local conditions and

Main Ideas

- This region’s climates range from tropical to desert to polar icecap.
- There is a great diversity of plant and animal life, including some species found nowhere else in the world.

Places & Terms

outback

CONNECT TO THE ISSUES

ENVIRONMENTAL

CHANGE The hole in the ozone layer, located over Antarctica, has affected the climate of this region.

PLACE The Rafflesia, which is native to Indonesia, is the world’s largest flower. It is almost three feet across.



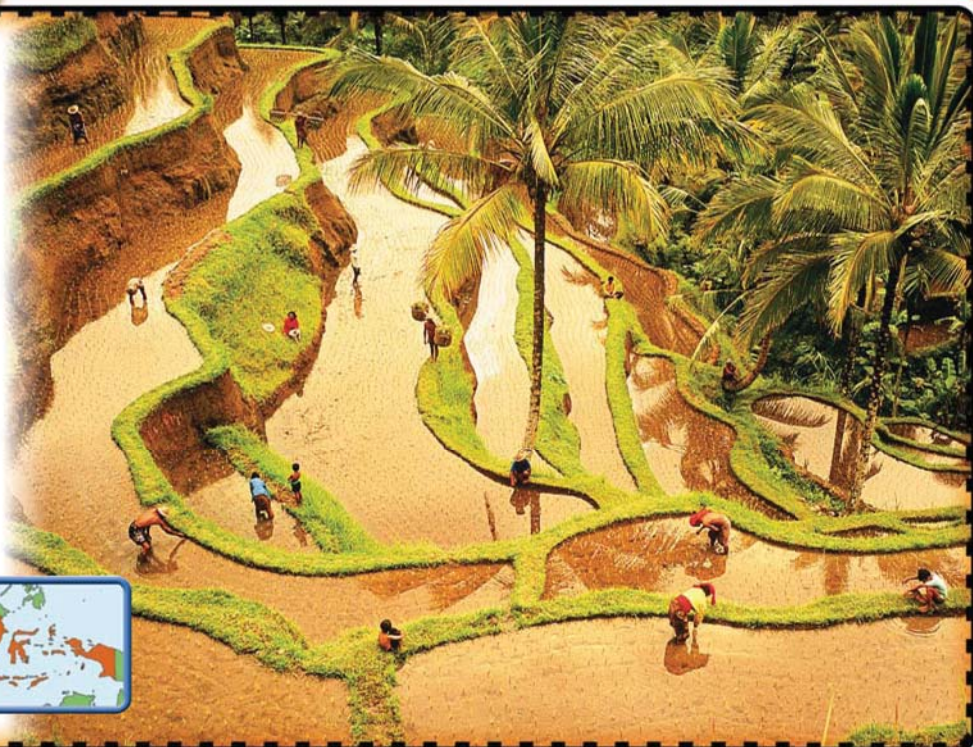
5 THEMES

HUMAN-ENVIRONMENT INTERACTION

Terraced Farming

These rice paddies on the island of Bali show an ancient method of altering the landscape for farming. Farmers build terraces, or ledges, on the sides of hills.

Terracing has many advantages. It lets people plant on slopes, allowing them to use otherwise unproductive land. It makes irrigation easier because gravity causes water to flow from high terraces to low ones. And it conserves soil, because the terraces prevent dirt from being washed down the slope.



BACKGROUND

The tropical rain forests of the Philippines alone have more than 3,000 species of trees and 8,000 species of wild plants.

landforms can affect precipitation amounts. For example, mountains create rain shadows.


Areas with monsoons often experience disastrous weather. During the wet season, typhoons can occur in Southeast Asia and Oceania.

TROPICAL PLANTS Southeast Asia has one of the greatest diversities of vegetation of any region. For example, it has a remarkable number of tree species. Near the equator are tropical evergreen forests, while deciduous forests are more common in the wet and dry climate zone. Teak, a valuable tree that Asians harvest commercially, comes from these deciduous forests. Southeast Asia also has many types of plants.

In general, Oceania does not have diverse vegetation. The low islands have poor soil and small amounts of rain, so plants don't grow well. Some high islands have rich, volcanic soil and plentiful rain. These islands have abundant flowers and trees, such as the coconut palm.


Bands of Moderate Climate

Australia is the only inhabited continent that lies completely in the Southern Hemisphere. New Zealand is even farther south. Australia and New Zealand have generally moderate climates.

HOT SUMMERS, MILD WINTERS As Section 1 explained, a mountain chain runs parallel to the east coast of Australia. The strip between the mountains and ocean is divided mostly into two climate zones. The northern part of this strip has a humid subtropical climate, with hot summers, mild winters, and heavy rainfall. It is one of Australia's wettest regions, receiving an average of 126 inches of rain a year. This climate also exists in northern Vietnam, Laos, Thailand, and Myanmar. 




Using the Atlas

 Find this mountain range on the map on page 678. What is it called?

Australia's Unique Life Forms




Kangaroo
and joey
(baby
kangaroo)



Queensland
bottle tree




Wombat



Platypus



Emu



Tasmanian Devil

REGION Because it was cut off from contact with the other continents for centuries, Australia developed many unique plants and animals, such as those shown here.

What other Australian animals have you heard of?

MILD SUMMERS, COOL WINTERS New Zealand and the southern part of Australia's east coast share a marine west coast climate. The seasons have mild temperatures because ocean breezes warm the land in the winter and cool it in the summer. New Zealand's forests consist primarily of evergreens and tree ferns, which thrive in such a climate.

New Zealand receives rainfall year-round, although the amount varies dramatically from one part of the country to another. For example, the mountains of South Island cause rain to fall on their western slopes, so the eastern part of the island is dryer. Mountains change the climate in another way. The mountainous inland areas of New Zealand are cooler than the coastal areas. Temperatures drop about three-and-a-half degrees for every 1,000-foot rise in elevation.

Mountains influence Australia's climates, too. The Great Dividing Range forces moisture-bearing winds to rise and shed their rain before moving inland. For that reason, the marine west coast and humid subtropical climates exist only on the east coast. That coast is Australia's most heavily populated region. The moist coasts are also the only parts of Australia with enough rain for trees that grow taller than 300 feet.


BACKGROUND

This rate of temperature reduction is true in almost all mountain ranges.

Hot and Cold Deserts

As you learned earlier in this book, there are many types of desert. For example, two very different deserts exist in Australia and Antarctica.

ARID AUSTRALIA One-third of Australia is desert, lying in an oval in the center of the continent. This region receives less than 10 inches of rain a year and is too dry for agriculture or for grazing. Encircling the desert is a band of semiarid climate that receives no more than 20 inches of rain a year. Crops can only be grown there by using irrigation. Several factors cause Australia's dryness. Because it lies in the tropics and subtropics, Australia is very hot, so rain evaporates easily. And as you read earlier, mountains and uplands force the winds from the ocean to rise and shed their rain on the coasts instead of the interior.

Very few people live in the dry interior. Australians call the unpopulated inland region the **outback**. The few people who live in the outback receive medical care from the Royal Flying Doctor Service. 


THE WHITE DESERT With its lands located around the South Pole, Antarctica is earth's coldest, driest continent. It has an icecap climate. In the winter, inland temperatures can fall to 70°F below zero or colder. Cold air doesn't hold moisture well, so Antarctica's air has only one-tenth the water vapor found in the atmosphere of temperate regions. As a result, Antarctica receives little precipitation and is often called a polar desert. But it has heavy snow and ice cover because the snow that does fall rarely melts.

Antarctica's only plants are those, such as lichens and mosses, that can survive severe cold and long periods of darkness. Its animals are mostly sea life and birds, including several types of penguins.

In Section 3, you will learn about examples of human-environment interaction in this region.



Seeing Patterns

 How is the Australian outback similar to far northern Canada, which you studied in Unit 2?



Assessment

1 Places & Terms

Identify this term and explain its importance in the region's physical geography.

- outback

2 Taking Notes

PLACE Review the notes you took for this section.

Climate	
Vegetation	

- What types of climates cover most of Southeast Asia and Oceania?
- Where are deserts found?

3 Main Ideas

- What region has one of the greatest diversities of vegetation of any world region?
- Why don't low islands generally have diverse vegetation?
- What effect does elevation have on temperature in the mountains of New Zealand?

4 Geographic Thinking

Making Inferences What aspects of life in the Australian outback might be difficult? **Think about:**

- the need to fly in medical care
- activities that require water

 **See Skillbuilder Handbook, page R4.**



EXPLORING LOCAL GEOGRAPHY Learn about the plants and animals that are native to your state. Create an **illustrated map**, like the one on page 696, showing five or six of your state's native life forms. (The examples do not have to be unique to your state, only natives of it.)



Human–Environment Interaction

A HUMAN PERSPECTIVE In May 2000, the Smithsonian Institution honored Mau Piaiug for preserving traditional navigation skills. Mau was born in Micronesia. When he was four years old, he began to sail with his grandfather, who taught the boy how to navigate without using instruments. Those methods of navigation were similar to those used by ancient Polynesians. In 1976, Mau was the navigator during an experimental voyage in which a group used a Polynesian-style canoe to travel from Hawaii to Tahiti and back. Since then, Mau has taught many people in the Pacific Islands how to navigate using traditional skills. In doing so, he passed on important knowledge of how ancient people adapted to their environment.

Traveling the Pacific

In ancient times, people around the world found ways to travel great distances in spite of geographic challenges. For example, the people of Arabia discovered that the camel was the perfect pack animal to take across the desert. Similarly, the people who settled the islands of the Pacific developed ways to travel that vast and dangerous ocean.

NAVIGATION CHARTS Most scholars believe that the people who settled the Pacific Islands came from Southeast Asia. They first used land bridges and small rafts and canoes to reach the islands closest to the mainland. In time, they ventured farther out into the Pacific, which required more sophisticated navigation methods.

Pacific Islanders not only relied on stars for navigation, but they also used charts made of sticks and shells. The sticks showed the patterns of waves commonly found in a region. The shells gave the positions of islands. Pacific Islanders closely guarded the secret of how to use these charts until the late 1800s. About that time, they began to use European methods of navigation.

Main Ideas

- Pacific Islanders developed technology that enabled them to travel the Pacific Ocean.
- This region has been damaged by nuclear testing and the introduction of European animals.

Places & Terms

voyaging canoe

outrigger canoe

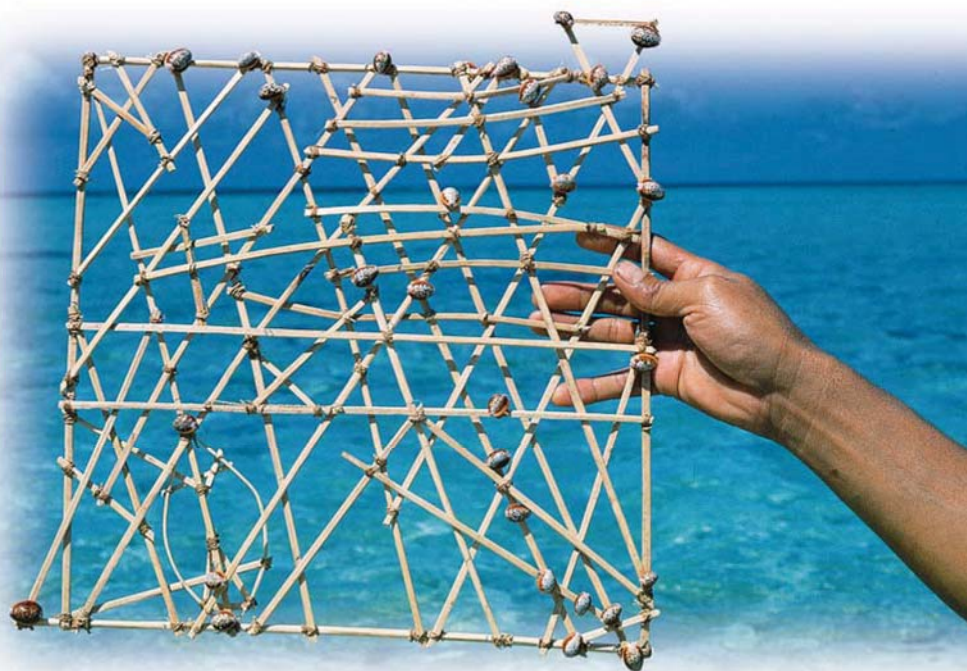
atoll

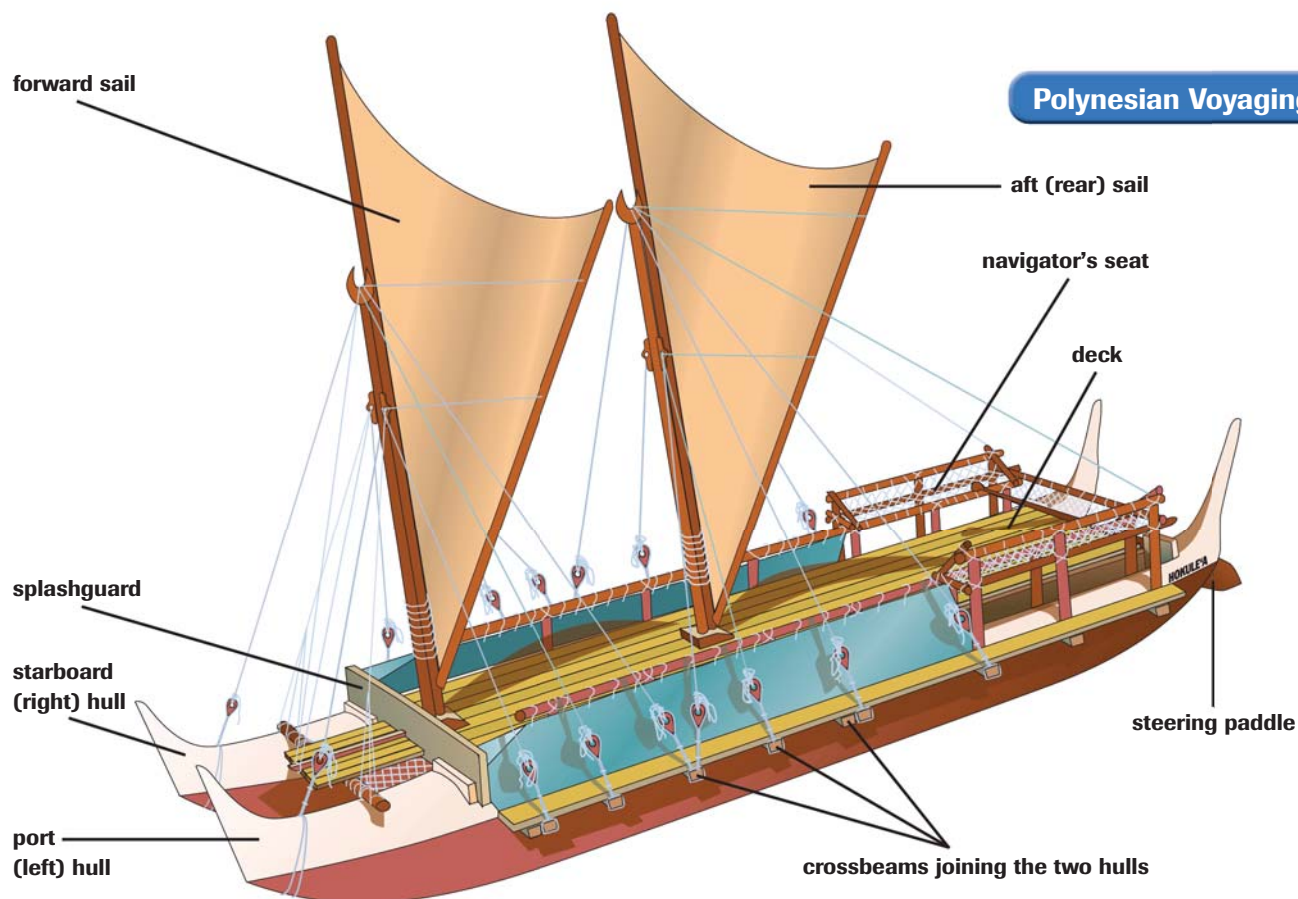
Bikini Atoll

CONNECT TO THE ISSUES

LAND CLAIMS The Bikini Islanders lost their homeland when the United States used it for atomic tests.


HUMAN-ENVIRONMENT INTERACTION Pacific Islanders used charts like this to record patterns of waves and ocean swells. The shells mark islands. **How might these charts help sailors plan a journey?**






Polynesian Voyaging Canoe

SPECIAL CANOES To sail the vast ocean, Pacific Islanders developed huge **voyaging canoes** with double hulls, shown above. Having two hulls made the craft stable and gave it the ability to carry lots of weight. The canoes also had sails to take advantage of the winds. Cabins were sometimes built on the platform atop the hulls to shelter the voyagers and their supplies. Those supplies usually included plants that the travelers hoped to grow in their new homeland.

The large voyaging canoes were awkward to use in the lagoons of the islands where Pacific Islanders settled. In those places, they used the **outrigger canoe**. An outrigger canoe has a frame, with an attached float, extending from one side. The float helps balance the canoe. 



Making Comparisons

 How was balance achieved in the voyaging canoes and the outrigger canoes?

Invasion of the Rabbits

Just as the people who settled the Pacific Islands carried familiar plants with them, so did the Europeans who colonized Australia. They also brought European animals, such as the rabbit. The impact was disastrous. Although the rabbit is a small, timid animal, it proved to be a force strong enough to nearly ruin the Australian landscape.

THE RABBIT PROBLEM In Europe, many people raise or hunt rabbits for food. In 1859, Thomas Austin released 24 rabbits into Australia so he could hunt them. It was like infecting the continent with a cancer; the rabbit population grew faster than anyone could control it. A single pair of rabbits can have up to 184 descendants in 18 months. Plus, rabbits have few natural enemies—such as foxes—among Australia's wildlife. By 1900, Australia had more than a billion rabbits.



REGION When Australia's rabbit population gets out of control, they swarm over the landscape. **How would this affect the region's ability to grow crops?**

Australia's arid climate produces sparse vegetation. Rabbits graze close to the ground, so they kill or weaken the plants that do grow. Rabbits wiped out native plants and destroyed crops. They ruined pastures, reducing the land's ability to feed herds of sheep. Areas stripped of vegetation suffered erosion. And some of Australia's native animals became endangered because of competition for food. **B**

CONTROL MEASURES Australians have made efforts to control the number of rabbits. They imported foxes to prey on rabbits, but the growing fox population endangered Australian wildlife just as rabbits had. In the early 1900s, the government built a 2,000-mile fence to keep rabbits from spreading to the southwest. This fence succeeded only temporarily before rabbits broke through to the new region.

In the 1950s, the government infected wild rabbits with a disease called myxomatosis. More than 90 percent of the total rabbit population died. As rabbit numbers decreased, Australian ranches could support nearly twice as many sheep. But rabbits became immune to the disease, and their numbers boomed again—to 300 million by the 1990s.

Now Australians are trying a combination of methods to reduce rabbit numbers: using poison, introducing new diseases, erecting fences, and destroying the warrens and burrows where rabbits live. No one knows if this new program will provide a permanent solution.

Nuclear Testing

Australia is not the only land in this region to be scarred by the consequences of human action. Beginning in the 1940s, the United States and the Soviet Union waged an arms race in which they competed to develop more powerful nuclear weapons. As part of its weapons development program, the United States wanted to test nuclear bombs without endangering American citizens. In the 1940s and 1950s, the United States conducted 66 tests in the Pacific.

TESTS IN BIKINI ATOLL In the Marshall Islands of the central Pacific lies Bikini Atoll. An **atoll** is a ringlike coral island or string of small islands surrounding a lagoon. **Bikini Atoll** was the site of U.S. atomic-weapons tests. (Similar tests were also held on Enewetak Atoll.) **C**

The U.S. government chose Bikini for testing because it lay far away from regular shipping and air travel routes. In 1946, the government moved the 167 Bikini Islanders to another atoll and conducted two atomic-weapons tests.

From 1951 to 1958, the U.S. government held about 60 more tests there. The most dramatic of these was the explosion of a hydrogen bomb that was code-named Bravo. That blast vaporized several islands



Making Comparisons

B Why are rabbits better suited to Europe than Australia?



Using the Atlas

C Locate the Marshall Islands on the map on page 681. What are the nearest nations to them?



MOVEMENT U.S. sailors and Bikini Islanders load supplies before the evacuation of Bikini Atoll in 1946. **Why do you think they used U.S. Navy landing craft instead of privately owned boats?**

BACKGROUND

The two-piece bikini bathing suit was named after the Bikini test because designers claimed the suit was “explosive.”

of the Bikini Atoll and contaminated the entire area with high levels of radiation. Many islanders were injured or became ill.

LONG-TERM EFFECTS In the meantime, the Bikini Islanders remained exiled from their homeland. The first atoll to which they were moved proved to be unable to support inhabitants, so in 1948, they were moved to the island of Kili. But they soon grew unhappy because conditions there made it impossible to grow enough food or to engage in fishing.

In the late 1960s, the United States government declared Bikini Atoll safe for humans, and some islanders returned home. Then, in 1978, doctors discovered dangerous levels of radiation in the islanders’ bodies. The affected islanders had to leave again. A cleanup began in 1988, but no one knows when Bikini Atoll will again be suitable for human life.

In Chapter 31, you will read more about the history and culture of Oceania, Southeast Asia, Australia, and New Zealand.

SECTION 3 Assessment

1 Places & Terms

Identify these terms and explain their importance in the region’s physical geography.

- voyaging canoe
- outrigger canoe
- atoll
- Bikini Atoll

2 Taking Notes

HUMAN-ENVIRONMENT INTERACTION Review the notes you took for this section.

Human-Environment Interaction

- What is an example of humans adapting to the environment?
- What are examples of humans altering the environment?

3 Main Ideas

- How did Pacific Islanders navigate the ocean in ancient times?
- How have Australians tried to control the rabbit problem?
- Why have the Bikini Islanders been unable to return home?

4 Geographic Thinking

Determining Cause and Effect What do the atomic tests on Bikini reveal about the long-term effects of using atomic weapons?

Think about:

- how the blasts affect people and the environment



RESEARCH LINKS
CLASSZONE.COM

GeoActivity

MAKING COMPARISONS Do research to learn about French atomic tests in the Pacific. Create a **chart** comparing the French tests to the U.S. tests. You might use such categories as location, impact on people, and current policy about the tests.

VISUAL SUMMARY PHYSICAL GEOGRAPHY OF SOUTHEAST ASIA, OCEANIA, AND ANTARCTICA

Landforms

Southeast Asia: Indochinese Peninsula; Malay Peninsula; Malay Archipelago; mountain ranges and rivers

Oceania: high islands; low islands; New Zealand—South Island and North Island; Australia—Great Dividing Range, Murray River

Antarctica: Transantarctic Mountains; East Antarctica and West Antarctica



Resources

- Southeast Asia has fish, fertile soil, and mineral resources.
- Oceania is generally poor in resources. Some islands have minerals.
- New Zealand has fertile farmland, forests, and rivers. Australia is rich in minerals.



Climate and Vegetation

- Southeast Asia and Oceania have tropical or subtropical climates. Southeast Asia has a great diversity of vegetation.
- Australia has moderate climates on its coasts and arid climates inland. New Zealand has a marine west coast climate.
- Antarctica is a polar desert.



Human-Environment Interaction

- The people who settled the Pacific Islands navigated using traditional methods and doubled-hulled canoes.
- Imported rabbits severely damaged the vegetation of Australia.
- U.S. atomic tests contaminated the Bikini Atoll with radiation.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

- | | |
|-----------------------|--------------------|
| 1. archipelago | 6. outback |
| 2. Oceania | 7. voyaging canoe |
| 3. high island | 8. outrigger canoe |
| 4. low island | 9. atoll |
| 5. Great Barrier Reef | 10. Bikini Atoll |

B. Answer the questions about vocabulary in complete sentences.

- Which of the terms above are related to Australia?
- Are atolls high islands or low islands? Explain.
- Is the Great Barrier Reef most closely related to high islands or low islands? Explain.
- Which would a tourist be more likely to visit, the outback or the Great Barrier Reef? Why?
- Which of the subregions contain archipelagos?
- Where in Oceania are outrigger canoes used?
- What are the important features of voyaging canoes?
- Which of the terms above is associated with human damage to the environment?
- Are high islands or low islands more likely to have prosperous economies? Why?
- Which term or terms name a place in Oceania?

Main Ideas

Landforms and Resources (pp. 689–693)

- What are the two distinct subregions of Southeast Asia?
- What is the physical pattern formed by the mountain ranges and rivers of mainland Southeast Asia?
- For what purpose do engineers use the underground steam found in the volcanic area of New Zealand?
- What is one of the many differences between the physical geographies of Australia and New Zealand?

Climate and Vegetation (pp. 694–697)

- Where is the tropical wet and dry climate found?
- How does the Great Dividing Range influence Australia's climate?
- What are the main plants and animals of Antarctica?

Human-Environment Interaction (pp. 698–701)

- On the navigation charts of Pacific Islanders, what did the shells represent?
- Why did the rabbit population grow so quickly in Australia?
- Why have the Bikini Islanders been unhappy with the places where the U.S. government resettled them?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.

Landforms	
Resources	

- What subregion has a large diversity of both landforms and vegetation?
- How did the type of vegetation found in Australia make it an unsuitable place for the introduction of rabbits?

2. Geographic Themes

- LOCATION** Where are the tropical climates of this region located relative to the equator?
- MOVEMENT** How does the physical geography of Southeast Asia encourage movement?

3. Identifying Themes

Consider the way that Pacific Islanders used shell maps (see page 698). How does the use of such maps demonstrate all five themes of geography?

4. Determining Cause and Effect

What are some of the negative and positive effects of volcanic activity in Southeast Asia?

5. Identifying and Solving Problems

In general, Oceania has few resources. What problem does this create for Pacific Islanders, and how might they solve it?

Additional Test Practice,
pp. S1–S37



TEST PRACTICE
CLASSZONE.COM

Geographic Skills: Interpreting Maps

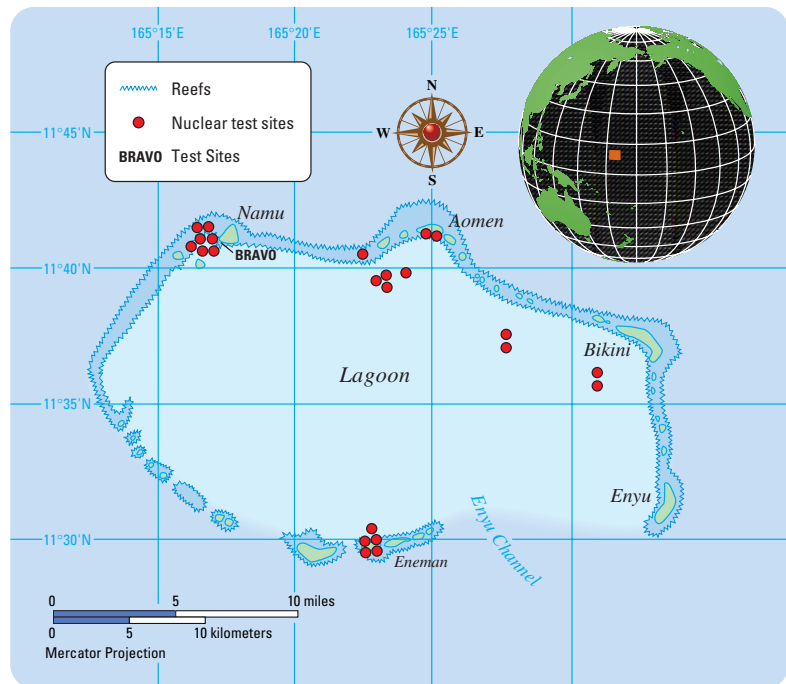
Bikini Atoll

Use the map to answer the following questions.

- PLACE** Which channel leads to the lagoon inside the Bikini Atoll?
- LOCATION** What is the absolute location of the Bravo test site?
- MOVEMENT** How far did radiation travel from the Bravo test site in order to contaminate Bikini Island?



In addition to Bikini Atoll, other atolls and islands were contaminated with radiation from the U.S. atomic-weapons tests. Do research to learn the names and locations of these islands and atolls. Then create a map showing the full area of radiation contamination.



INTERNET ACTIVITY

Use the links at classzone.com to do research about active volcanoes in Southeast Asia. Look for such information as location and recent eruptions.

Writing About Geography Write a report of your findings. Include a map of the volcanoes and a chart listing recent eruptions. List the Web sites that were your sources.

SECTION 1

Southeast Asia

SECTION 2

Oceania

SECTION 3

Australia, New Zealand, and Antarctica

HUMAN GEOGRAPHY OF SOUTHEAST ASIA, OCEANIA, AND ANTARCTICA

Migration and Conquest

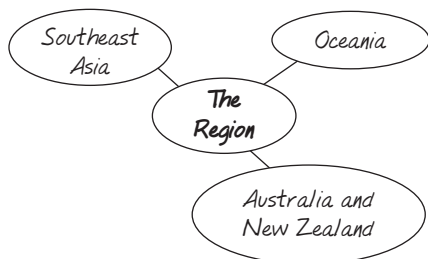
Three Subregions



GeoFocus

How have conquest and colonialism affected this region?

Taking Notes In your notebook, copy a cluster diagram like the one shown. As you read, take notes about the history, economics, culture, and modern life of each subregion.





Southeast Asia

A HUMAN PERSPECTIVE Much of Southeast Asia is haunted by its colonial past. One example is the divided island of Timor. The Netherlands ruled Western Timor, later part of Indonesia. Portugal ruled East Timor. In 1975, East Timor declared itself an independent state (even though some people living there wanted to join Indonesia). In response, Indonesia invaded the new nation and ruled it for 24 years.

In 1999, Indonesia let East Timor vote on the choice of limited self-rule within Indonesia or independence. When most voters chose independence, pro-Indonesia militias reacted with violence. The United Nations stepped in and helped East Timor prepare for nationhood. In May 2002, the country gained its independence.

The new nation is also one of the poorest. However, the development of a natural gas field in the Timor Sea should help solve East Timor's economic challenges. In fact, the revenue from the sale of the gas is expected to guarantee the new nation a steady income until 2020.

A Long History of Diversity

Since ancient times, many cultures have influenced Southeast Asia, yet it has retained its own character. Today the region includes the nations of Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.

EARLY HISTORY China and India influenced ancient Southeast Asia. China ruled northern Vietnam from 111 B.C. to A.D. 939. Chinese art, technology, political ideas, and ethical beliefs shaped Vietnam's culture. Hinduism and Buddhism spread from India and influenced religion and art in much of Southeast Asia. Yet, Southeast Asia kept some of its own traditions, such as more equal roles for women.

Early Southeast Asian states didn't have set borders. Instead, they were **mandalas**, states organized as rings of power around a central court. Those regions of power changed in size over time. A *mandala's* region might overlap that of a neighbor, so rulers had to make alliances for a state to survive. The **Khmer Empire** was a powerful *mandala* that lasted roughly from the 9th to the 15th centuries in what is now Cambodia.

Main Ideas

- Influenced by China and India, Southeast Asia developed many vibrant, complex cultures.
- European colonialism left a legacy that continues to affect the region's politics and economics.

Places & Terms

mandala

Khmer Empire

Indochina

Vietnam War

ASEAN

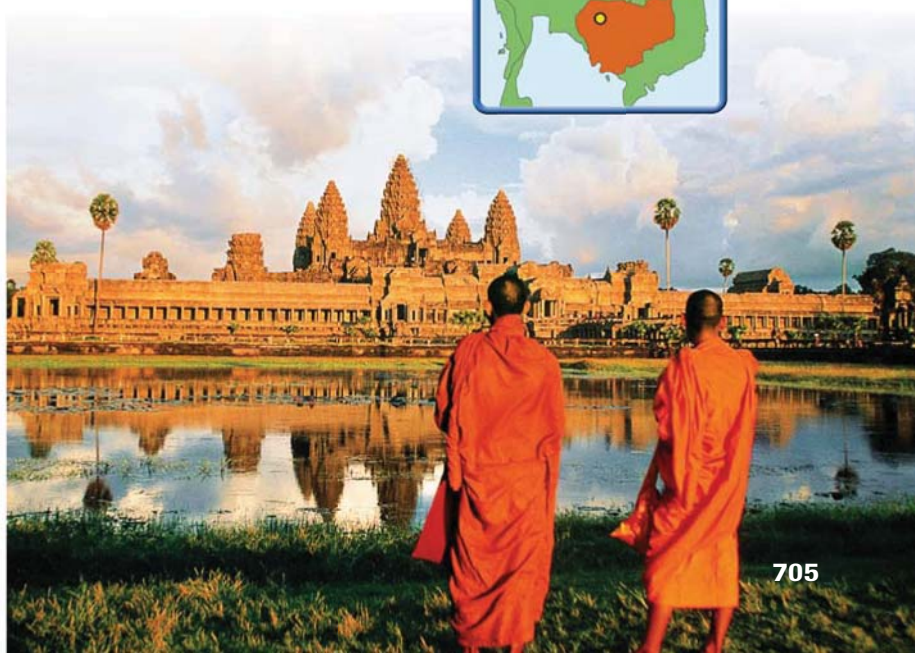
CONNECT TO THE ISSUES

INDUSTRIALIZATION

Since 1960, many Southeast Asian nations industrialized, while others lagged behind.

MOVEMENT The temple complex of Angkor Wat in Cambodia was built in the 1100s and dedicated to the Hindu god Vishnu.

How does this temple illustrate the movement of ideas?



POWERFUL STATES The years 1300 through 1800 were important to Southeast Asia's development. Five powerful states existed where Myanmar, Vietnam, Thailand, Java, and the Malay Peninsula are now. Those states were similar to *mandalas* but were larger and more complex. Trade within the region was important to their economies.


During that period, the Burmese, the Vietnamese, the Thai, and the Javanese each began to define their national identities. Urbanization, or the growth of large cities, also took place. For instance, Malacca, on the Malay Peninsula, grew to have about 100,000 people in the early 1500s.

BACKGROUND
The Burmese are the people of Myanmar, which used to be called Burma; the Javanese live in Indonesia.

Colonialism and Its Aftermath


Southeast Asian states not only traded with each other but also with merchants from Arabia and India, who brought Islam to Southeast Asia. Islam attracted many followers, especially in the islands.

EUROPEAN CONTROL Large numbers of Europeans began to arrive in Southeast Asia in 1509. At that time, Europeans had little interest in setting up colonies there, except for the Spanish, who took over the Philippines. Instead, the goal of most Europeans was to obtain wealth.

Europeans used various business methods to take over much of Southeast Asia's trade. As the region's wealth flowed to Europe, local control in Southeast Asian states declined. By the 20th century, Europeans had made all of Southeast Asia except Siam (now Thailand) into colonies. 

Colonialism changed Southeast Asia. First, colonial rulers set up centralized, bureaucratic governments with set routines and regulations. Second, Europeans forced the colonies to produce commodities that would help Europe's economy. They included rubber, sugar, rice, tea, and coffee. Third, colonialism had the unintended effect of sparking nationalism. Groups that never had been allies united against European rule. And Southeast Asians who gained Western education learned about political ideas such as self-rule.



Seeing Patterns
 Why would a loss of wealth cause local control to weaken?

Colonies in Southeast Asia, 1895



BACKGROUND

The name *Indochina* refers to the Indian and Chinese influences on the region. The colony took up only part of the Indochinese Peninsula.

INDEPENDENCE Claiming to take back “Asia for Asians,” Japan occupied Southeast Asia during World War II. Southeast Asians soon realized that Japan was exploiting the region for its own benefit just as Europe had. But unlike the Europeans, the Japanese put Southeast Asians in leadership roles, which gave them valuable experience.

After the war ended, Southeast Asian leaders sought independence. Several Southeast Asian nations gained their freedom peacefully. Indonesia had to fight from 1945 to 1949 to gain independence from the Dutch.

Indochina, a French colony made up of Cambodia, Laos, and Vietnam, suffered decades of turmoil. The Vietnamese defeated the French in 1954, winning independence for Cambodia, Laos, North Vietnam, and South Vietnam. The United States became involved in South Vietnam to prevent its takeover by Communist North Vietnam. The resulting conflict was the **Vietnam War** (1957-1975). In 1973, the United States withdrew. In 1975, South Vietnam surrendered, and Vietnam became one country, ruled by Communists. Also in that year, Communists took over both Cambodia and Laos.

An Uneven Economy


Agriculture is the main source of livelihood in Southeast Asia. Several nations began to industrialize in the 1960s, but industry is unevenly distributed across the region.

TRADITIONAL ECONOMIES The people of Cambodia, Myanmar, Laos, and Vietnam depend mostly on agriculture for income. Rice is the chief food crop in those countries, as it is in almost every Southeast Asian nation. Myanmar is heavily forested and produces much of the world’s teak, a yellowish-brown wood valued for its durability.


The lack of industry has many causes. The Vietnam War destroyed factories and roads. Thousands of refugees fled Vietnam, Laos, and Cambodia after the war, reducing the work force. Political turmoil, especially in Cambodia and Myanmar, has continued to block growth.

But some economic growth has occurred. For example, Vietnam has built industry and sought foreign investment and trade.

INDUSTRY AND FINANCE In general, Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand have more highly developed economies than others in the region. Those countries have long been members of **ASEAN**, the Association of Southeast Asian Nations, an alliance that promotes economic growth and peace in the region. (The other four Southeast Asian countries did not join ASEAN until 1995 or later.)

Although these countries didn’t begin to industrialize extensively until the 1960s, manufacturing has grown quickly. The processing of agricultural products is the chief industry. Other industries include the production of textiles, clothing, and electronic products. Service industries are also important. For example, Singapore is a center of finance. 

CONNECT TO THE ISSUES INDUSTRIALIZATION

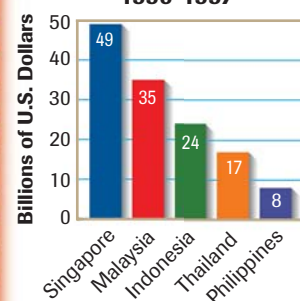
 What further effects do you think industrialization will have on Southeast Asia?

connect TO THE Issues

INDUSTRIALIZATION

Developing nations often seek foreign investors who can provide money to build industry. Most investors favor countries that show economic progress and have few political problems. This graph shows the amount of foreign investment in five Southeast Asian countries.

Foreign Direct Investment, 1990-1997




SOURCE: Organization for Economic Cooperation and Development

Energy sources and mining are significant. Brunei receives most of its wealth from petroleum and natural gas reserves, but they are expected to run out in the early 2000s. Southeast Asia's mineral resources include tin, which is found mostly in Indonesia, Malaysia, and Thailand.

A Rich Mosaic of Culture

Although Southeast Asia has absorbed many influences from other regions, it has used them to create a culture that is distinctly its own.


RELIGIOUS DIVERSITY Southeast Asia has much religious diversity. Buddhism is widespread in the region, while the Philippines is mostly Catholic (as a result of Spanish rule), and Indonesia and Brunei are mostly Muslim. In addition, some Southeast Asians practice Hinduism, and others follow traditional local beliefs. 

RICH ARTISTIC LEGACY Buddhism and Hinduism have influenced the region's sculpture and architecture. Perhaps the most famous example is the ancient temple complex of Angkor Wat in what is now Cambodia. (See page 705.) Thailand's Buddhist temples are modern examples of religious architecture.

Southeast Asia is also famous for its performing arts and literature. For example, Thailand and Indonesia have traditional forms of dance, in which richly costumed dancers act out stories. In Vietnam, poetry is highly respected. Nearly all Vietnamese know at least part of the 3,253-line poem "Kim van Kieu," which is about love and sacrifice.



Using the Atlas

 Use the map on page 683 to learn about the major religions in Southeast Asia. What do you notice about the places where Catholicism and Islam are practiced?

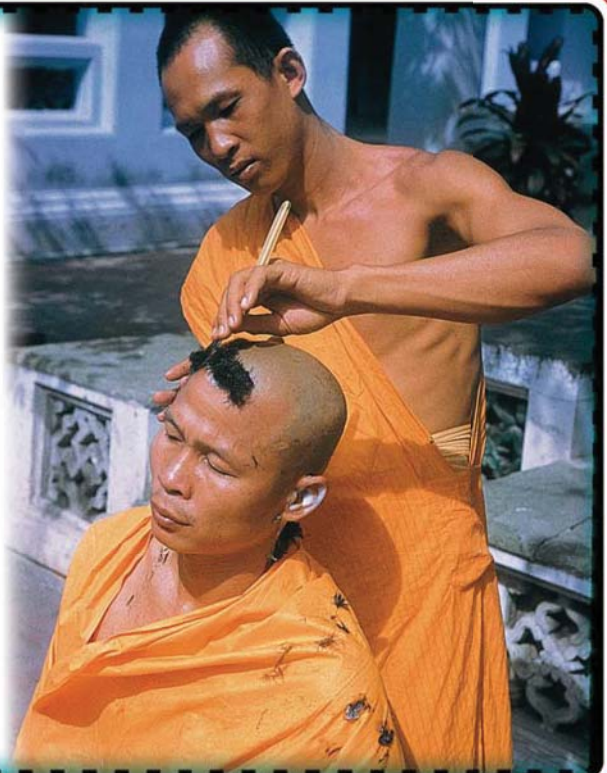
growing up in... Thailand

About 95 percent of the people who live in Thailand are Buddhists and follow an ancient tradition of Buddhism that stresses the importance of being a monk. This has led to a unique custom. During their late teens or early twenties, many Thai men become monks for a short time.

The new monks go to live in a monastery where they meditate and study Buddhist teachings. They also shave their heads, wear saffron (orange-yellow) robes, and give up their worldly possessions. Some Thai men remain monks their whole lives, but most leave the monastery after a short period, usually a few weeks or months. After his time as a monk, a young man is considered ready for adult life.

If you grew up in Thailand, you would pass the following milestones:

- At your birth, your parents might ask a Buddhist monk to help them choose your name.
- You would have to attend school for 6 years, between ages 7 and 14. Although higher education is available, very few people can afford it.
- You could vote at age 18.
- If you were a man 18 years of age, you might be drafted to serve in the army.



Changing Lifestyles

Most Southeast Asians live in rural villages and follow traditional ways. However, a growing number of people are moving to cities and leading more modern lives—a trend taking place all around the world.

THE VILLAGES In many Southeast Asian villages, people live in wood houses built on stilts for protection against floods. Roofs are usually made of thatch, although wealthy families may have a tin roof. In Laos, Myanmar, and Thailand, most villages have a Buddhist temple that serves as the center of social life. In Indonesia, most villages have a group of leaders who govern by a system that stresses cooperation.

Some Southeast Asian villagers still wear traditional clothing, such as the *longyi*—a long, tightly wrapped skirt—of Myanmar. Yet modern conveniences are slowly beginning to change village life. For instance, listening to the radio is common in Indonesia and Thailand.

THE CITIES Kuala Lumpur, Malaysia, and Singapore are examples of bustling cities with towering skyscrapers and modern business districts. In Southeast Asian cities, most people live in apartments.

But there is a shortage of housing for the large numbers of people migrating to cities for jobs. Many of them live in makeshift shacks in slums. The dangers of doing that were shown by a disaster in Manila, Philippines. Hundreds of people had built shanties at a city dump. In July 2000, after a typhoon weakened a tower of garbage, it crashed onto those shacks and burst into flames. More than 100 people died.

Another region facing the changes caused by rural-to-urban migration is Oceania. You will read about that region in Section 2.



PLACE People waiting at a bus stop in Kuala Lumpur, Malaysia, wear Western clothes and traditional Muslim attire.

What does this scene show about diversity in Malaysia?



Using the Atlas

Use the map on page 680 to locate Kuala Lumpur and Singapore. How far apart are these two major cities?



Assessment

1 Places & Terms

Identify these terms and explain their importance in the region's history or culture.

- *mandala*
- Khmer Empire
- Indochina
- Vietnam War
- ASEAN

2 Taking Notes

PLACE Review the notes you took for this section.

Southeast Asia

The Region

- Where did powerful states exist during the period 1300 to 1800?
- What is the only country in the region that wasn't a colony?

3 Main Ideas

- How did China and India influence Southeast Asia?
- How did the Vietnam War affect the economy?
- What is village life like in Southeast Asia?

4 Geographic Thinking

Drawing Conclusions How has ASEAN helped to create a region within a region?

Think about:

- the goals of ASEAN
- differences between longtime and more recent ASEAN members



See Skillbuilder Handbook, page R5.



MAKING COMPARISONS Choose two Southeast Asian nations and research their similarities and differences. Create a **chart** comparing the two countries by using such categories as languages, religions, main economic activities, and types of government.

Disasters!

INTERACTIVE

Krakatoa

Imagine an explosion so destructive that it sends volcanic ash 50 miles into the air and so loud that people hear it about 3,000 miles away. In 1883, the Indonesian volcano Krakatoa (also spelled *Krakatau*) erupted in an explosion that created those effects. But the blast was only the beginning of the disaster. The eruption caused the volcano to collapse into the sea and triggered a series of deadly tsunamis, or giant waves. The greatest of those towered 120 feet high. The tsunami swept the coasts of Java and Sumatra, killing more than 36,000 people.



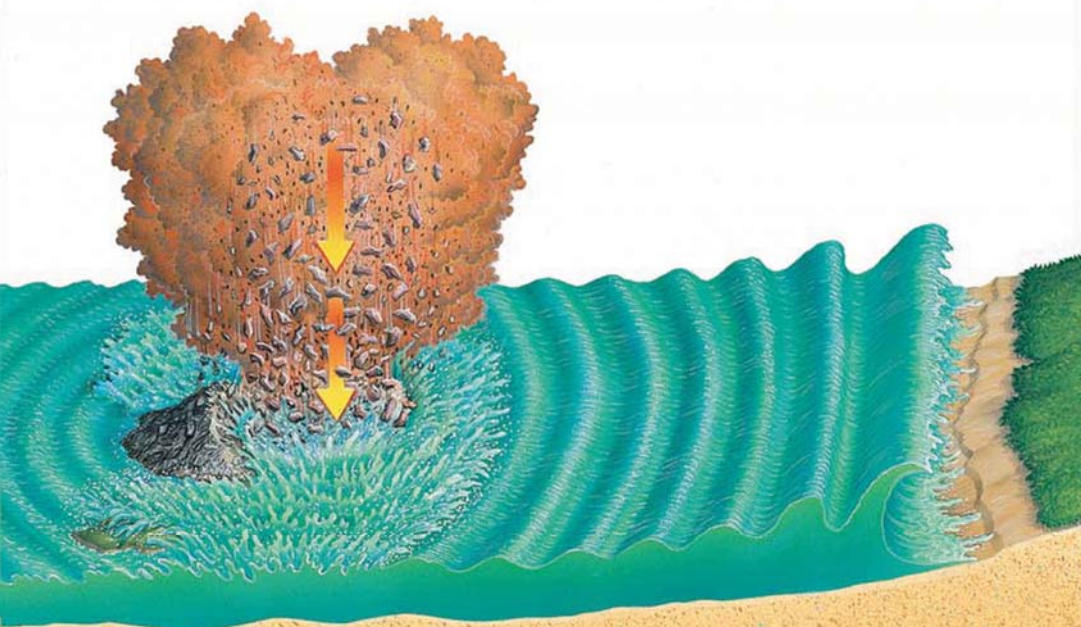
Krakatoa: The Eruption and the Tsunami

1 Krakatoa was a main island consisting of three overlapping volcano cones, plus two small islands.

2 After a few months of minor volcanic activity, Krakatoa blew up violently on August 27, 1883.



In the Sunda Strait, in 1927, lava began to flow through a crack in the sea floor beneath the site of the old island. By 1928, a new island was born and named Anak Krakatoa, which means "child of Krakatoa." The island is still volcanically active, but it is not considered dangerous.



3 All three cones disappeared, leaving only a small island. Massive amounts of sea water were displaced. The disturbance of the ocean created giant tsunamis. The tsunamis destroyed about 163 villages.

GeoActivity

PREPARING A NEWSCAST

Working with a partner, use the Internet to research one of the other volcanoes listed below. Create a **television newscast** about the disaster.

- Sketch a map showing the volcano and the region affected by lava, ash, mud slides, or tsunamis.
- Create drawings, diagrams, or graphs about the disaster.
- Write a script for the newscast.



RESEARCH LINKS
CLASSZONE.COM

GeoData

DUST IN THE WIND

- Krakatoa threw so much ash and dust into the air that temperatures dropped by about 0.9°F around the world.
- The dust filtered light and caused spectacular sunsets around the world for about a year.
- The dust in the atmosphere also made the moon look shades of green and blue.

FIVE DEADLIEST VOLCANOES SINCE 1800

1800

1815

Tambora, Indonesia:
92,000 dead

1883

Krakatoa, Indonesia:
36,000 dead

1902

Mount Pelée, Martinique :
30,000 dead

1985

Nevado del Ruiz, Colombia:
25,000 dead

2025

2005

Indian Ocean, near Sumatra:
225,000 dead

A HUMAN PERSPECTIVE Noah Idechong has fought to protect the sea life of Palau, an archipelago east of the Philippines. Palauans have always earned their living by fishing, but in the 1980s, many species of fish were in danger of extinction because they were such popular menu items in Asian restaurants. Idechong began to study the problem in 1988.

His efforts paid off. In 1994, the year Palau became independent, it banned the export of certain species, and fish populations grew again. However, in 2000, the government planned building projects that would help the economy but strain the environment. Idechong kept working to save wildlife. He said, “Palau right now needs . . . people who can say what they want Palau to look like 50 years from now.” In other words, Palauans need to decide what to preserve in the face of change.

A History of the Islands

Like Palau, all the nations of Oceania except Nauru are island groups. They are Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. (Some geographers consider Australia and New Zealand part of Oceania, but those nations are covered in Section 3.)

FIRST ISLANDERS Prehistoric people journeyed from mainland Southeast Asia to nearby Pacific islands using small rafts or canoes and land bridges that have since disappeared. In time, they developed large

Main Ideas

- Settled in ancient times by migrating Southeast Asians, Oceania developed three cultural regions.
- Contact with Europeans and Americans disrupted the islanders’ traditional ways of life.

Places & Terms

Micronesia

Melanesia

Polynesia

subsistence activities

copra

taro

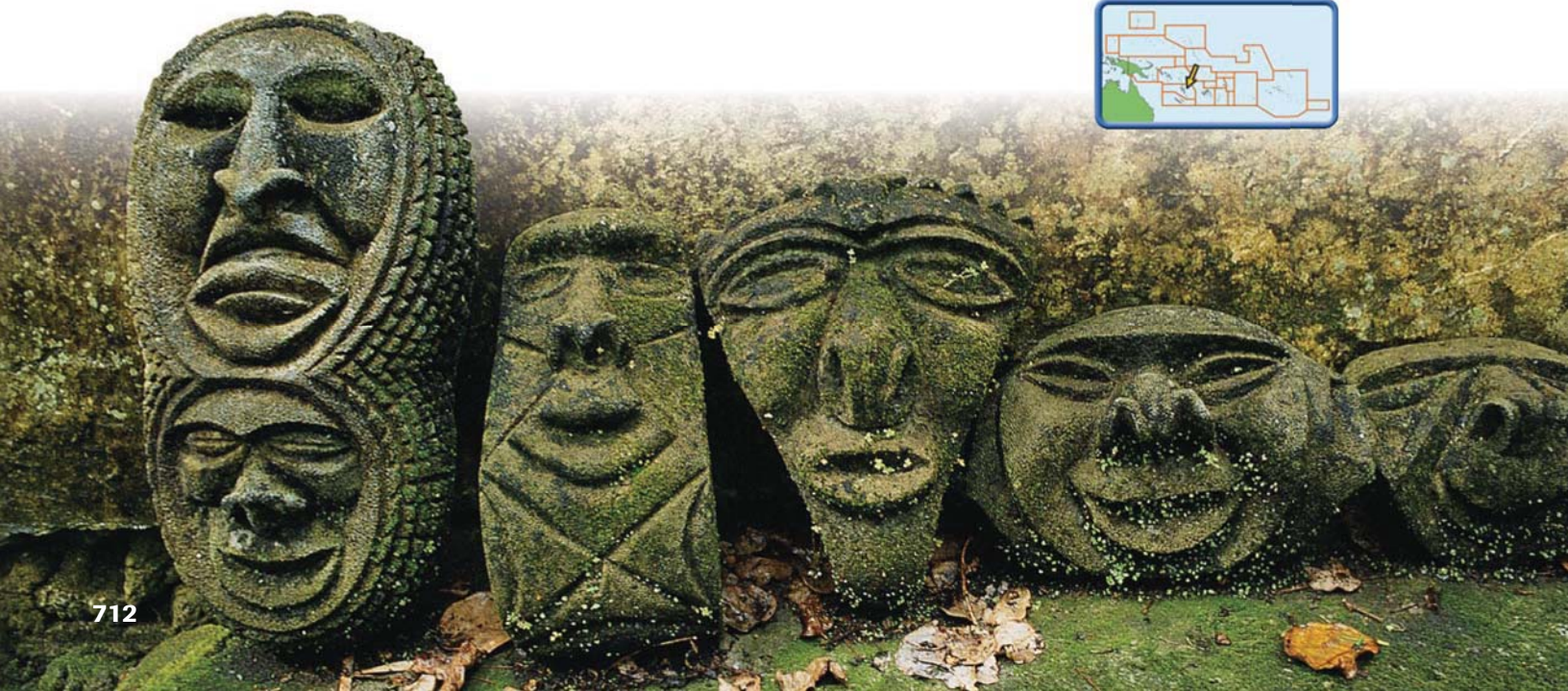
CONNECT TO THE ISSUES

ENVIRONMENTAL

CHANGE A possible rise in sea level from global warming threatens some islands.

PLACE These stone heads are on an altar on Vao, a small island of Vanuatu. They were used in rituals for controlling the weather.

How has time affected the stone heads?



Cultural Regions of Oceania



SKILLBUILDER: Interpreting Maps

- 1 REGION** Which of the cultural regions contains islands held by the United States?
- 2 MOVEMENT** Consider what you have learned about ancient migrations of people in the Pacific Ocean. Which cultural region was the last to be settled?

voyaging canoes (see page 699) that enabled them to sail longer distances. For thousands of years, their descendants continued to migrate as far east as Hawaii, as far south as New Zealand, and as far west as Madagascar.

For centuries, the people of Oceania had little contact with the rest of the world, so they developed their own ways of life. Geographers divide Oceania into three regions, defined both by physical geography and culture. The regions are **Micronesia**, meaning “tiny islands,” **Melanesia**, meaning “black islands,” and **Polynesia**, meaning “many islands.”

CONTACT WITH THE WEST Beginning in the 1500s, many Europeans explored the Pacific. Perhaps the most famous was the British captain James Cook, the first European to visit many of the islands.

In the 1800s, European missionaries arrived and tried to convert the islanders to Christianity. Traders came for products such as coconut oil, and sailors hunted whales. Settlers started plantations on which they could grow coconuts, coffee, pineapples, or sugar.

As a result, island societies began to decline. Many islanders died of diseases brought by the Europeans. Western ways often replaced traditional customs. And Europe and the United States took control of the islands and turned them into territories and possessions.

RECENT HISTORY Oceania experienced turmoil in the 20th century. During World War II, the Allies and the Japanese fought fierce battles there to gain control of the Pacific. Afterward, some islands were used as nuclear test sites, not only by the United States (see Chapter 30) but

BACKGROUND

James Cook was also one of the first Europeans to explore Australia and New Zealand. See page 718 for his portrait.

Economic Activities

Many residents of Oceania make a living from traditional activities.



This resident of Fiji is husking coconuts to make copra, or the dried meat of coconuts.



Traditional dances are often performed for tourists. These dancers are from French Polynesia.



Many people of Oceania, such as these Cook Islanders, earn their living from fishing.

also by other countries. Gradually, inhabitants of many of the islands moved toward self-rule. Since 1962, 12 different nations have gained independence. Foreigners still rule the other islands.

A Traditional Economy

Most of Oceania has an economy in which people work not for wages but at **subsistence activities**. These are activities in which a family produces only the food, clothing, and shelter they themselves need. The tiny island of Nauru is an exception. It has a prosperous economy based on the mining of phosphates, used in fertilizer. But Nauru's phosphate deposits are expected to give out early in the 21st century.

AGRICULTURE As Chapter 30 explained, most low islands do not have plentiful or fertile soil. In spite of this, agriculture is the region's main economic activity because many high islands do have soil that supports agriculture. The chief crops are bananas, sugar, cocoa, coffee, and **copra**, which is the dried meat of coconuts. Fishing also provides a significant source of income.

OTHER ECONOMIC ACTIVITIES Since the invention of jet travel, tourism has become very important to the economy of Oceania. This has been a mixed blessing. Although tourists spend money in the islands, they also require hotels, stores, roads, and vehicles. These threaten the islands' environment and traditional ways of life.

A few islands besides Nauru have mining industries. For example, Papua New Guinea is developing a large copper mine with the help of foreign investment. Some industry also exists. Some of the larger towns have factories that produce goods such as coconut oil and soap. As in Southeast Asia, an increasing number of people in the Pacific Islands are moving to cities to find jobs. ▶

Culture of the Islands

Oceania has a culture that blends traditional ways with the cultures of Europe and the United States.

LANGUAGE AND RELIGION Oceania is one of the most linguistically diverse regions in the world. Some 1,100 of the world's languages are spoken there. The people of Papua New Guinea alone speak 823 languages. In addition, many Pacific Islanders speak European languages. English is the most common.

Because of missionaries' work and colonialism, Christianity is the most widely spread religion. Even so, some Pacific Islanders still practice their traditional religions.



Seeing Patterns

A Which characteristics of Oceania might account for its high levels of migration to cities?

THE ARTS Many Pacific Islanders produce arts and crafts, such as baskets and mats woven from the leaves of palm trees or carved wooden masks. Some islanders make a living selling such items to tourists.

Island Life

As in Southeast Asia, two distinct ways of life exist on the islands: traditional village life and more modern city life.

TRADITIONAL LIFE Ways of life varied throughout the islands. In Polynesia, most people lived in villages, ranging from small clusters of houses to large walled settlements. The houses were usually wooden with thatched roofs. Generally, a chief led each village. The villages' economies centered on fishing and farming. One major crop was **taro**, a plant with a starchy root. Taro can be eaten boiled, or it can be made into breads, puddings, or a paste called poi.

Many Polynesian societies were warlike and had frequent conflicts. In contrast, Micronesians tended to exist peacefully with their neighbors. Most Micronesians lived in extended family groups. As in Polynesia, they made a living by fishing and farming, with taro being a main crop.

In Melanesia, villages usually existed by the coast where people could fish. Inland, many people practiced shifting cultivation, moving often to let fields regain fertility. Other Melanesians were hunter-gatherers.

RECENT CHANGE Oceania has few cities, but they have been growing as many people move to them for education or jobs. Rapid urban growth has led to sprawling shantytowns and inadequate sanitation facilities. In addition, city dwellers are giving up their traditional ways of life. **B**

But change is also helping Oceania. Modern communications systems can unify countries consisting of scattered island groups and also can link Oceania to the rest of the world. Section 3 will describe the two most westernized nations in the region: Australia and New Zealand.



Making Comparisons

B What other regions of the world that you have studied are experiencing these same problems in their growing cities?



Assessment

1 Places & Terms

Identify these terms and explain their importance in the region.

- Micronesia
- Melanesia
- Polynesia
- subsistence activities
- copra
- taro

2 Taking Notes

MOVEMENT Review the notes you took for this section.



- How were the Pacific Islands first settled?
- What type of migration is happening within Oceania today?

3 Main Ideas

- a. How did contact with Europeans and Americans affect the societies of the Pacific Islands?
- b. What are the chief crops of Oceania?
- c. What is distinctive about Oceania in terms of its languages?

4 Geographic Thinking

Determining Cause and Effect How has modern technology both helped and harmed Oceania? **Think about:**

- jet travel
- modern communications



RESEARCH LINKS
CLASSZONE.COM

GeoActivities

SEEING PATTERNS Use the Internet to research several nations and territories in Oceania. Then choose the one that you think would make the best vacation spot. Create a **tourist brochure** that will persuade travelers to visit that place. Check your brochure for correct grammar, spelling, sentence structure, and punctuation.

Comparing Cultures

Regional Costumes

Blue jeans have spread around the globe and become a popular item of clothing symbolizing U.S. culture. But traditional items of clothing remain important in many regions of the world. Regional costumes are unique not only because of their styles but also because of the materials from which they are made.



In India, the traditional garment of women for centuries has been the sari—five to seven yards of unstitched cloth wrapped around the body. The most valuable saris are made of silk, but saris of cotton and synthetic fabrics are also common.



In Fiji, traditional outfits are made from tapa cloth, a nonwoven fabric made from the inner bark of trees. This woman is wearing a skirt of tapa cloth. Fijians often decorate the cloth with geometric designs painted in brown, black, or reddish bark dyes.



Although colorful silk kimonos symbolize Japan, neither the fabric nor the robe itself originated there. Silk was first developed in China, and kimonos are patterned after a wide-sleeved Chinese robe, the *p'ao*.

These Indians of Peru wear traditional wool clothing woven from llama hair; llamas are native to South America. Each village has its own set of traditional patterns that are woven into its cloth. Some of the designs indicate local landscapes; others depict animals or historical events.



GeoActivity

CREATING A DISPLAY

Working with a partner, use the Internet to research the linen clothing of ancient Egypt or the feather cloaks of Hawaiian chiefs. Create a **display** about this clothing.

- Draw or photocopy an illustration of the clothing. Write a caption giving interesting details about how it was made.
- Create a map showing the country where the clothing originated.



RESEARCH LINKS
CLASSZONE.COM

GeoData

Tapa Cloth

- Tapa cloth is also made in other Melanesian islands, New Guinea, and northern Australia.
- The most popular material for tapa is the inner bark of the mulberry.

Silk

- The Chinese began to produce silk in about 2700 B.C. and kept their methods a secret until about 140 B.C.
- The wide silk or satin sash worn with a kimono is called an obi. It is about 12 feet long.

Cotton

- South Asia was one of the first regions of the world where cotton was cultivated—starting in about 3000 B.C.
- Indian men also wear a type of wrapped garment called a dhoti. Mohandas Gandhi wore a dhoti to show his allegiance to the common Indian man.

Wool

- Wool is the fiber forming the coats of such hairy mammals as sheep, goats, camels, and llamas.
- Intricate textiles have been produced in Peru since about 1000 B.C.



Australia, New Zealand, and Antarctica

A HUMAN PERSPECTIVE In 1788, Great Britain founded Sydney, Australia, as a **penal colony**—that is, a place to send prisoners. By the end of the 20th century, Sydney had overcome its origins and earned a reputation as a fun and fascinating international city. That has been due, in part, to a unique combination of physical and cultural geographic assets.

Sydney is located on a deep, beautiful harbor that not only allows the city to function as a port but also provides an arena for sailing and swimming. The mild climate there encourages such outdoor activities. In addition, Sydney has an increasingly diverse population. People who visit the city can view art and dine on food from many cultures.

In 2000, Sydney hosted the Olympic Games. With a physical environment that favors sports and a culture shaped by immigrants, the city seemed a perfect site for an international athletic event.

Main Ideas

- Both Australia and New Zealand were colonized by Europeans and still have a strong European heritage.
- Because of its harsh climate, Antarctica has no permanent settlements.

Places & Terms

penal colony

Aboriginal people

Maori

Treaty of Waitangi

pakeha

CONNECT TO THE ISSUES

LAND CLAIMS The Aboriginal people of Australia are trying to reclaim ancestral lands.

History: Distant European Outposts

Australia, New Zealand, and Antarctica made up the last region to be explored by Europeans. Australia and New Zealand became British colonies, even though they were already inhabited by people with ancient cultures of their own.

THE ORIGINAL INHABITANTS The **Aboriginal people** migrated to Australia from Asia at least 40,000 years ago. When Europeans arrived in Australia, there were an estimated 500 Aboriginal groups, speaking perhaps 200 different languages. The Aboriginal people had complex

Australia and New Zealand, Prehistory to Today

40,000 B.C.

Australia is gradually settled by Aboriginal people. Their art includes rock paintings

1788

Great Britain starts a penal colony in Australia.



40,000 B.C.

1750 A.D.

1800

1850

1769-1770

Captain James Cook
(right) explores New Zealand and Australia.



1851

Gold is discovered in **New South Wales**, Australia.

BACKGROUND

The name *Australia* comes from the Latin phrase *Terra Australis Incognita*, which means unknown southern land.

religious beliefs and social structures but a simple economy; they lived by hunting and gathering.

New Zealand was settled first by the **Maori**, who had migrated there from Polynesia more than 1,000 years ago. The Maori lived by fishing, hunting, and farming.

EARLY EXPLORERS During the 1600s and 1700s, several European explorers sailed in the coastal waters of New Zealand and Australia. Captain James Cook of Britain was the first to explore those two lands—New Zealand in 1769 and Australia's east coast in 1770. Antarctica was first discovered in 1820.

EUROPEAN SETTLEMENT In 1788 Britain began to colonize Australia (called New South Wales until 1820) as a place to send prisoners. Having a colony in Australia also gave Britain more Pacific naval bases. New Zealand was colonized by hunters and whalers from Europe, America, and Australia. No permanent settlements were established in Antarctica because of its cold climate.

In Australia, the British colonists had violent conflicts with the Aboriginal people, many of whom were killed. Even greater numbers of native people died from diseases brought by Europeans.

In New Zealand in 1840, the British and several Maori tribes signed the **Treaty of Waitangi**, giving Britain control over New Zealand. But the English and the Maori translations of the treaty differed. The English version gave Great Britain complete control; the Maori version gave Britain "governorship." Disagreement over who owned the land helped cause the Land Wars that lasted from 1845 to 1847 and from 1860 to 1872. In addition, tens of thousands of Maoris died from diseases.

Gold was discovered in Australia in 1851 and in New Zealand in 1861. Hundreds of thousands of people who dreamed of wealth flocked to the two countries, but few miners grew rich. Most, however, stayed there.

connect TO THE Issues

MAORI LAND CLAIMS

Like many other cultures, the Maori believed that land could not be sold without tribal consent because the tribe, not individuals, owned it. When the English seized land or tried to buy it without tribal consent, conflicts broke out. Differing views of the Treaty of Waitangi, shown below, also fueled conflicts.

The Land Wars in New Zealand lasted from 1845 to 1847 and from 1860 to 1872. A law passed in 1862 let people buy native lands, and the Maori lost most of their territory. In recent years, the Maori made land claims, and in the 1990s, they won some awards of cash and land.



1861
Gold is discovered in New Zealand.

1893
New Zealand gives women the vote.

1901
Australia becomes a Commonwealth nation.

1939-1945
Australia and New Zealand fight in World War II with the Allies.

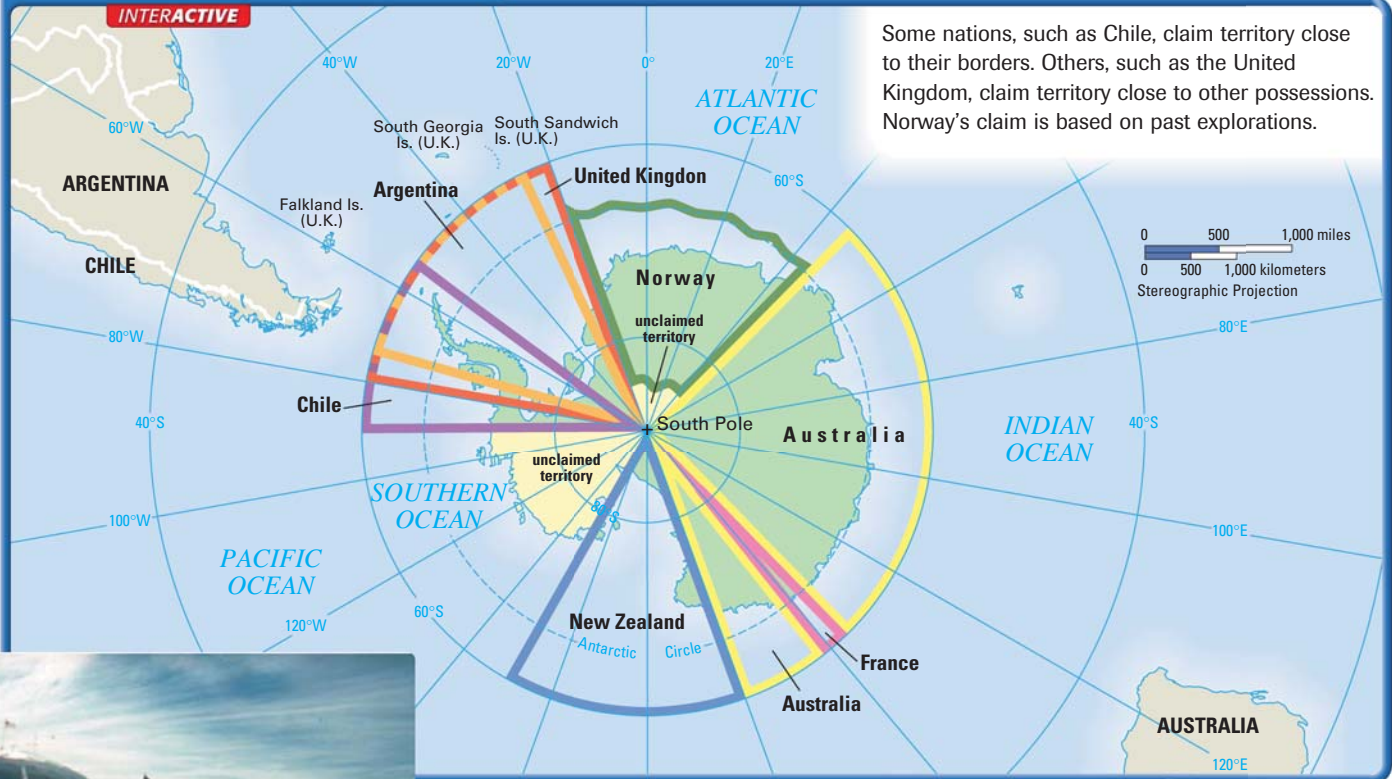
2000
The Olympic games are held in Sydney.



National Claims to Antarctica

INTERACTIVE

Some nations, such as Chile, claim territory close to their borders. Others, such as the United Kingdom, claim territory close to other possessions. Norway's claim is based on past explorations.



REGION Eighteen nations have scientific research stations in Antarctica. This one is run by U.S. scientists.

SKILLBUILDER: Interpreting Maps

- 1 **REGION** Which country has claimed the largest territory in Antarctica?
- 2 **LOCATION** Why doesn't this map have a compass rose?

Modern Nations

Originally, several colonies existed in Australia, but in 1901, they joined into a single, independent nation. New Zealand became self-governing in 1907. Both Australia and New Zealand remained in the British Commonwealth, which is a free association of Great Britain and several of its former colonies.

RIGHTS AND LAND CLAIMS New Zealanders have a long tradition of concern for equal rights and the welfare of its citizens. In 1893, New Zealand became the first country to grant women the vote. It was also one of the first nations to provide pensions for its senior citizens.

In both Australia and New Zealand, native people generally have less education and higher rates of poverty than other citizens. Attempting to improve their lives, the Aboriginal people and the Maori have made claims for the return of their former lands. (See Chapter 32.)

ISSUES A recent issue in Australia was a movement to withdraw from the Commonwealth. In 1999, Australia held a referendum on becoming an independent republic, but voters defeated the proposal, because Australians could not agree on how to choose a head of state.

Antarctica remains unsettled. In 1959, 12 countries drafted a treaty preserving the continent for research. By 2000, 18 countries had scientific research stations there. Seven countries have claimed territory in Antarctica, but many other countries do not recognize those claims.

CONNECT TO THE ISSUES

LAND CLAIMS

A How might land ownership improve Aboriginal and Maori lives?


Economy: Meat, Wool, and Butter

As Commonwealth members, Australia and New Zealand prospered by exporting food products and wool to the United Kingdom. So neither country developed much industry. But, since 1950, their exports to the United Kingdom have declined. To continue to prosper, Australia and New Zealand must either develop industry or find other trading partners, such as the nations of nearby Asia.

AGRICULTURE Australia and New Zealand are major exporters of farm products. New Zealand earns much of its income by selling butter, cheese, meat, and wool to other countries. Ranching is so widespread in New Zealand that in 1998 the number of farm animals (including 47.6 million sheep and 8.8 million cattle) was 15 times greater than the number of people! Crops include vegetables and fruits. For example, New Zealand is the world's largest producer of kiwi fruit.

Sheep ranching is also important in Australia, which is the largest exporter of wool in the world. Because so much of Australia is arid, less than ten percent of the land is used to grow crops.

MINING Australia earns a large part of its income from mining. It is the world's top producer of diamonds, lead, zinc, and opals. In addition, it is a major producer of bauxite, coal, copper, gold, and iron ore.

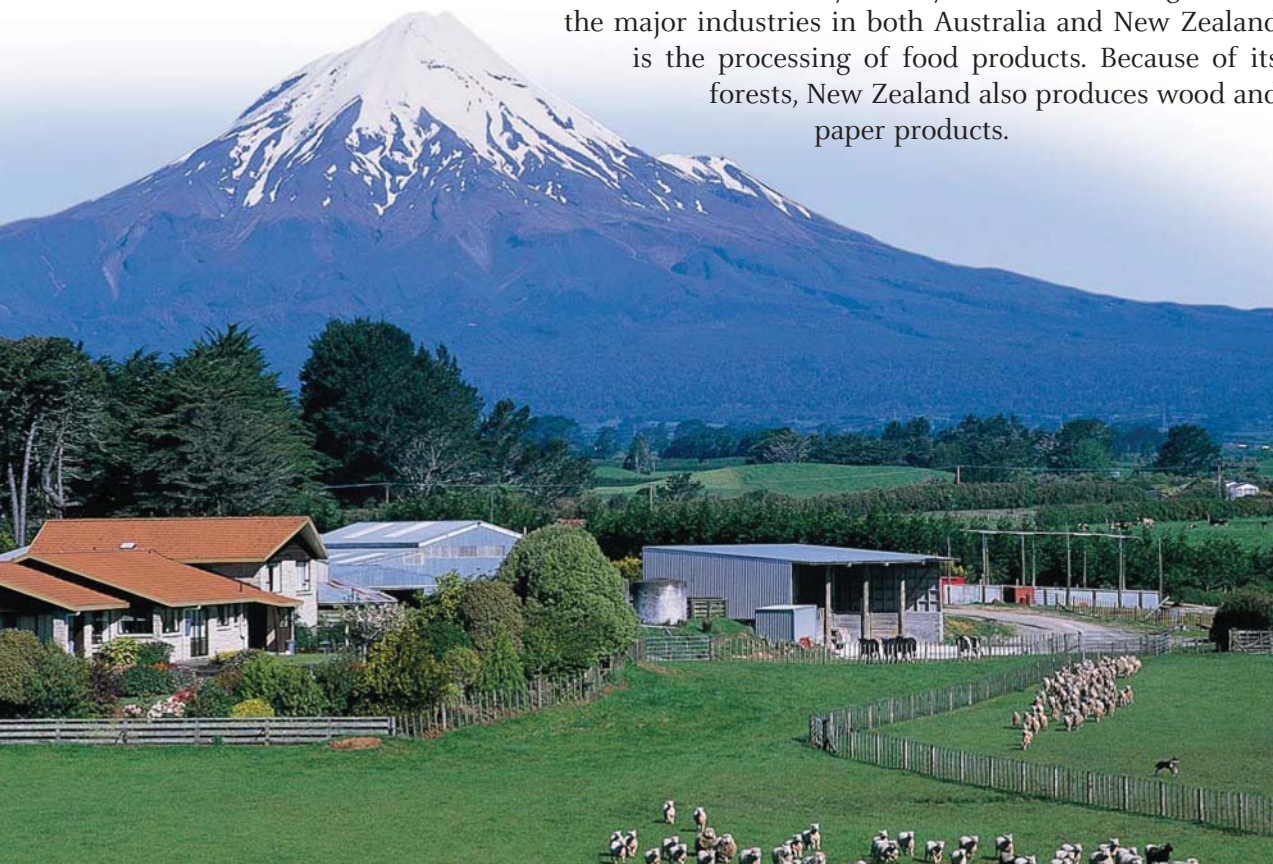
The mining industry faces one difficulty. Many deposits lie in the outback, far from cities. As a result, it is expensive to build the roads and buildings necessary for the mines to operate. Because of the high costs of mining and because Australia has historically lacked capital (money or property invested in business), Australian companies have had to rely on foreign investment. Foreign investors control about half the mining industry, so not all the profits stay within Australia. 

MANUFACTURING AND SERVICE Unlike most developed countries, Australia does not rely heavily on manufacturing. One of the major industries in both Australia and New Zealand is the processing of food products. Because of its forests, New Zealand also produces wood and paper products.



Seeing Patterns

B What are the pros and cons of foreign investment in industry?



PLACE Sheep ranches dot the New Zealand landscape—here by Mount Egmont. **Why are more ranches than farms found in mountainous areas?**



As in all developed countries, service industries have been growing. For example, nearly 65 percent of Australia's jobs are in service industries such as government, communications, and tourism.

THE ECONOMIC FUTURE Both Australia and New Zealand want to develop a more diversified economy that is not so dependent on agriculture. But it will be difficult to develop manufacturing plants that can compete with those in nearby Asia, where the cost of labor is generally lower. Finding a way to maintain prosperity in the face of global economic change is a major issue for these two nations.

Distinctive Cultures

The British colonial past has shaped the cultures of Australia and New Zealand, but they also have developed in distinctive ways.


AUSTRALIA'S CULTURE Most Australians are of British descent, but that proportion is changing because of high rates of immigration from places like Greece, Italy, and Southeast Asia. More than 20 percent of Australians are foreign born. Only about one percent are of Aboriginal descent.

Like the British, Australians drive on the left side of the road, and many enjoy drinking tea. Christianity is the major religion. Australians speak English but also have many colorful terms that are all their own. For example, they call ranches "stations" and wild horses "brumbies."

Australia's environment and history have influenced the arts, too.

The Aboriginal people have an ancient tradition of painting human and animal figures. Some of those works can be seen on rock walls around the country. Many Australian painters of European descent have portrayed the landscape. For example, Russell Drysdale is known for his pictures of the outback. Several Australian novelists have written adventure stories about life in the bush country.

NEW ZEALAND'S CULTURE The majority of New Zealanders are of European, mostly British, descent. They are called **pakehas**, a Maori term for white people. The Maori of New Zealand fared somewhat better than the Aboriginal people of Australia; about 15 percent of New Zealand's people are descended from the Maori.

New Zealand's culture blends British and Maori ways. For example, both English and Maori are official languages. Christianity is the main religion, but some churches combine biblical and Maori teachings. 


Both cultures have shaped New Zealand's art. Maori art, including intricate woodcarvings and poetic legends, still survives. Western art also thrives. Well-known New Zealand authors have included the novelist

Janet Frame and the mystery writer Ngaio Marsh. New Zealand filmmakers Jane Campion and Peter Jackson have made movies that were popular in many countries. And the opera singer Kiri Te Kanawa is admired internationally.

REGION The traditional facial markings of the Maori, shown here, are called *moko*.



Making Comparisons

 How are the experiences of the Aboriginal people and the Maori similar and different?

Modern Life

Australians and New Zealanders have similar lifestyles. For example, about 70 percent of Australians and 70 percent of New Zealanders own their own homes—usually single-family homes with enough land to grow a small garden.

CITY AND COUNTRY Australia and New Zealand are two of the most urbanized countries in the world; about 85 percent of their people live in cities and towns. Australia's large cities have the usual problems of pollution and traffic jams. In contrast, New Zealand's cities are relatively quiet, uncrowded, and pollution-free because of its small population and lack of industry.

In both Australia and New Zealand, many ranchers live far away from settlements. New Zealand has a good system of roads, even in rural areas, which aids travel. In Australia, many wealthy ranchers own private airplanes to help them cross the vast distances in the country. Some of the largest ranches in Australia can have a total land area of thousands of square miles.

RECREATION Both countries have climates that allow people to spend a great deal of time outdoors. As a result, aquatic sports, tennis, and team sports, such as rugby, cricket, and soccer, are very popular. Australia has developed its own form of football, called Australian rules football. Because New Zealand is mountainous, skiing and mountain climbing are common there.

In Chapter 32, you will read about Aboriginal land claims in Australia, industrialization in Southeast Asia, and global environmental change.

Geography TODAY

A "Green" Olympics

For the 2000 Olympics, Sydney used the latest technology to try to build facilities that would harm the environment as little as possible. For example, the Olympic Stadium, shown below, was built with very few harmful PVC plastics. In addition, its playing field was designed to be watered only with rainwater collected on the roof.



Assessment

1 Places & Terms

Identify these terms and explain their importance in the region's history or culture.

- penal colony
- Aboriginal people
- Maori
- Treaty of Waitangi
- pakeha

2 Taking Notes

MOVEMENT Review the notes you took for this section.

The Region

Australia and New Zealand

- What mineral lured colonists to Australia and New Zealand?
- To which country did Australia and New Zealand export wool?

3 Main Ideas

- How did the Treaty of Waitangi cause a misunderstanding over land ownership in New Zealand?
- Who owns Antarctica?
- What are some of the British cultural influences in Australia?

4 Geographic Thinking

Identifying and Solving Problems How do you think Australia and New Zealand can solve their economic problems? **Think about:**

- their need for new markets
- Asia's large population and its relative closeness
- the Asian nations that have thriving industries



EXPLORING LOCAL GEOGRAPHY Do research to learn which farm animals and minerals (if any) are major products of your state. Create a **Venn Diagram** showing those farm animals and minerals that your state has in common with Australia and those that are unique to each.

VISUAL SUMMARY

HUMAN GEOGRAPHY OF SOUTHEAST ASIA, OCEANIA, AND ANTARCTICA

Subregions of Southeast Asia

● Southeast Asia

- Southeast Asia was influenced by ancient China and India and later by European colonists.
- After World War II, the nations of Southeast Asia became independent.
- Industrialization and urbanization are taking place in many countries.

● Oceania

- After being isolated for centuries, the islands of Oceania came under the control of European countries and the United States.
- Since 1962, 12 nations have gained independence.
- Their economies are generally based on agriculture, tourism, and a small amount of industry.

● Australia, New Zealand, and Antarctica

- The Aboriginal people of Australia and the Maori of New Zealand lost land when European colonists arrived.
- Both Australia and New Zealand are former British colonies that are now Commonwealth nations.
- They both want to diversify their economies.



Reviewing Places & Terms

A. Briefly explain the importance of each of the following.

- | | |
|----------------|---------------------------|
| 1. Indochina | 6. Polynesia |
| 2. Vietnam War | 7. subsistence activities |
| 3. ASEAN | 8. penal colony |
| 4. Micronesia | 9. Aboriginal people |
| 5. Melanesia | 10. Maori |

B. Answer the questions about vocabulary in complete sentences.

11. Which of the above terms was a French colony in Southeast Asia?
12. What are the goals of ASEAN?
13. During the Vietnam War, the United States tried to protect South Vietnam from takeover by what group?
14. What are the three cultural regions of Oceania?
15. Which European nation used Australia as a penal colony?
16. Which of the above terms is the region from which the Maori migrated?
17. What is the name of the place to which the Maori migrated?
18. Which of the above terms name regions where you are likely to find subsistence activities?
19. What are some of the subsistence activities found there?
20. How long have Aboriginal people been living in Australia?

Main Ideas

Southeast Asia (pp. 705-711)

1. What were the distinctive characteristics of the states known as *mandalas*?
2. What effect did colonialism have on Southeast Asia?
3. What are some of the major changes that Southeast Asia has undergone since 1960?
4. What are some of the arts for which Southeast Asia is known?

Oceania (pp. 712-717)

5. How far east, south, and west did Pacific Islanders migrate?
6. What caused many island societies to decline starting in the 1800s?
7. What are the major economic activities in Oceania?

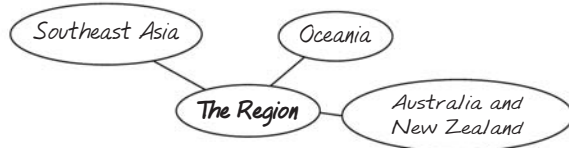
Australia, New Zealand, and Antarctica (pp. 718-723)

8. What prevents Australia from benefiting completely from its mining industry?
9. What historic actions demonstrated New Zealanders' concern for equal rights and social welfare?
10. What is the major activity conducted in Antarctica?

Critical Thinking

1. Using Your Notes

Use your completed chart to answer these questions.



- How does agriculture differ in the three subregions?
- When and how did various nations of the region gain independence from European control?

2. Geographic Themes

- HUMAN-ENVIRONMENT INTERACTION** In what ways has the Pacific Ocean helped to shape the various cultures in this region?
- MOVEMENT** What role did migration play in the settling of this region?

3. Identifying Themes

Drawing on what you know about this region, what are general differences between village life and city life? What geographic themes are included in your answer?

4. Seeing Patterns

How did the arrival of Europeans affect Southeast Asia, Oceania, Australia, and New Zealand?

5. Analyzing Data

Use the Regional Data File (pages 684–687) to calculate per capita GDP (total GDP divided by population) for Indonesia, Malaysia, Philippines, Singapore, and Thailand. Rank the countries from highest to lowest. Compare your list to the graph on page 707. What pattern do you notice?

Additional Test Practice,
pp. S1–S37



TEST PRACTICE
CLASSZONE.COM

Geographic Skills: Interpreting Maps

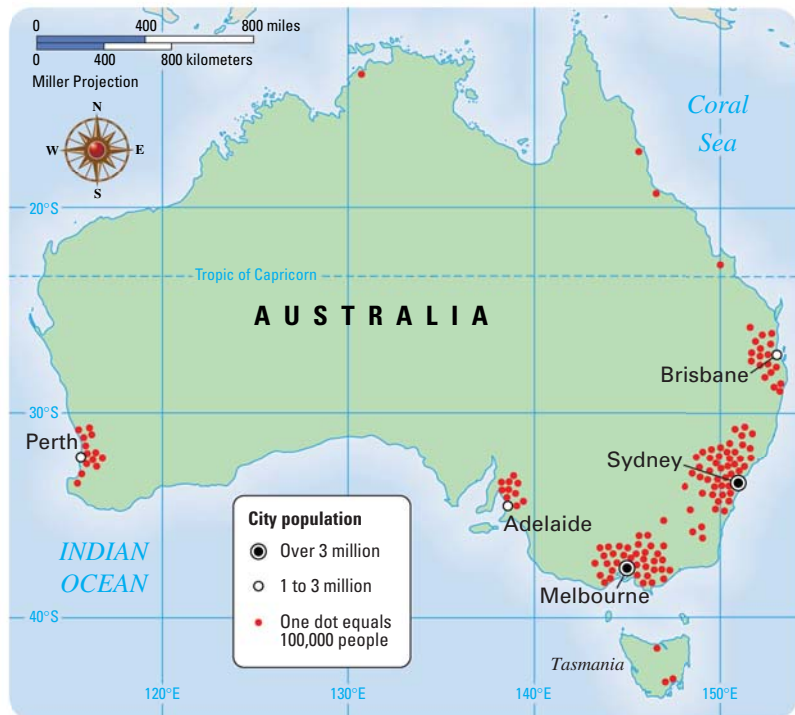
Population Distribution of Australia

Use the map at the right to answer the following questions.

- REGION** How would you describe the population distribution of Australia?
- PLACE** Identify the two most heavily populated cities of Australia. What do you notice about their surrounding regions?
- PLACE** Judging from this map, would you characterize Australia as a heavily populated or lightly populated country? Explain.



Copy this map on your own paper. Use the map on page 683 to make a climate map of Australia. Display the maps side by side with a caption explaining the link between climate and population distribution.



INTERNET ACTIVITY

Use the links at classzone.com to do research about two countries from different subregions in this unit. Look for information about government, economic activities, culture, and modern life.

Writing About Geography Write a report comparing the two countries. Include maps, charts, and graphs to help present the information. List the Web sites that were your sources.

TODAY'S ISSUES

Southeast Asia, Oceania,
and Antarctica

SECTION 1

Aboriginal Land
Claims

SECTION 2

Industrialization
Sparks Change

CASE STUDY

GLOBAL
ENVIRONMENTAL
CHANGE

For more on these issues in Southeast Asia, Oceania, and Antarctica . . .



CURRENT EVENTS
CLASSZONE.COM

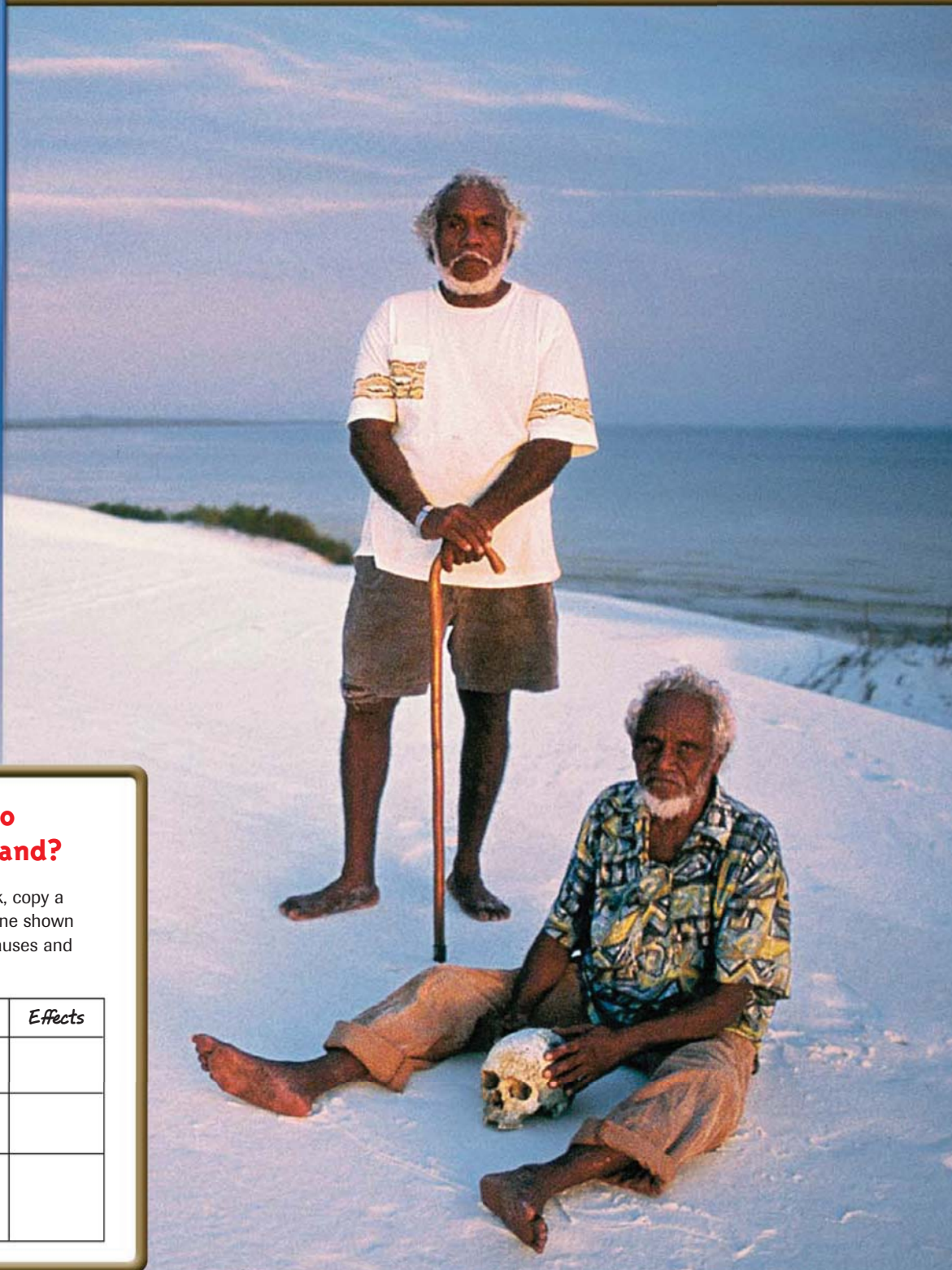
Gordon and Alick Pablo, elders of the Wuthathi Aboriginal people, bring a 200-year-old skull of an ancestor to be buried in their homeland.

GeoFocus

What relationship do humans have with land?

Taking Notes In your notebook, copy a cause-and-effect chart like the one shown below. Then take notes on the causes and effects of each issue.

	Causes	Effects
Issue 1: Land Claims		
Issue 2: Industrialization		
Case Study: Environmental Change		





Aboriginal Land Claims

Should native people be given back their ancestors' land?

Main Ideas

- The Aboriginal people of Australia lost their ancestral lands to European colonists.
- Recently they have regained some of that land through court cases.

Places & Terms

assimilation

Stolen Generation

Land Rights Act of 1976

Mabo Case

pastoral leases

Wik Case

A HUMAN PERSPECTIVE In 1972, the Australian government denied the claims of some Aboriginal people trying to regain ancestral lands. In response, Aboriginal protesters erected a tent on the lawn of Old Parliament House in Canberra and named it the Aboriginal Tent Embassy. They called it an embassy to symbolize their treatment as foreigners in their own country. They chose a temporary shelter instead of a building to symbolize that they had no permanent title to land.

Over the years, the Australian government tried to get rid of the tent embassy by force, by legal action, and by ignoring it in the hope that it would disappear. But in the year 2000, the embassy still stood. Protesters also set up a second tent embassy in Sydney during the Olympics to inform the world of their ongoing struggle to regain land.

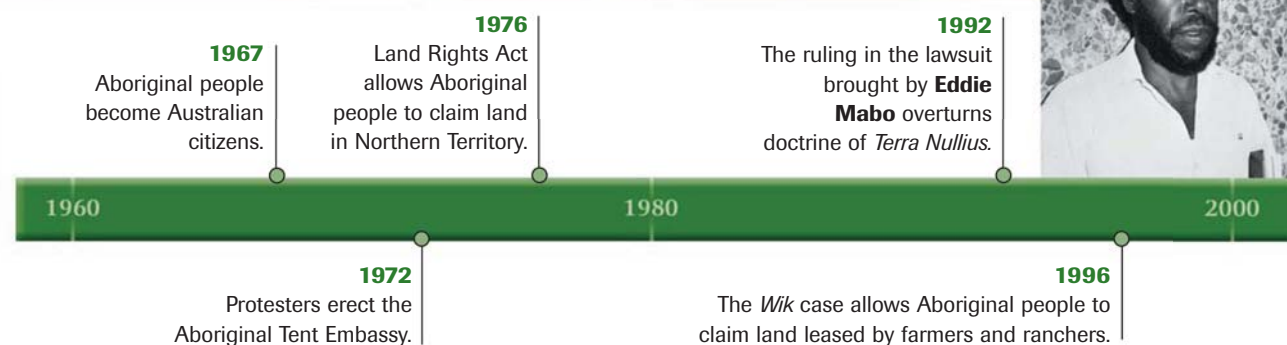
Aboriginal People Lose Land

Traditionally, the Aboriginal people had a complex relationship with land. They didn't farm or herd animals but lived by hunting and gathering whatever was available for food. Because of this, they depended completely on nature and saw many places as sacred.

BRITISH POLICY Because Aboriginal people did not use the land in the way that Westerners did—by farming it, mining it, and building on it—British colonists believed that they had no ties to the land. British authorities declared Australia to be *Terra Nullius*, a Latin term that means empty land. Therefore, the British government decided it had the right to take land without making treaties with Aboriginal leaders.

STOLEN LAND When Europeans began to settle Australia in 1788, they chose the most fertile regions. Aboriginal people tried to fight what

Aboriginal Fight for Land, 1960-2000



they saw as an invasion of their land, but they were defeated because the Europeans had superior weapons. Some Aboriginal people were forced to live on reserves, that is, tracts of less productive land set aside for them. Others lived on the edges of settlements and adopted some European ways, such as working on ranches.

STOLEN CHILDREN The Aboriginal people lost something even more precious than land. Between 1909 and 1969, the Australian government took about 100,000 mixed-race children and gave them to white families to promote assimilation. **Assimilation** occurs when a minority group gives up its culture and adopts the majority group's culture. **A**

Today, Aboriginal people call those children the **Stolen Generation** and feel great anger over their loss. Many Aboriginal people are fighting assimilation by passing their culture on to their children. And one reason they are seeking to regain land is to preserve their way of life.



Seeing Patterns

A If a group assimilates, is it more or less likely to seek the return of traditional lands? Explain.

Land Claims

In recent decades, the Aboriginal people have made some progress in winning their rights and regaining ownership of some of their land.

HARD-WON VICTORIES The Aboriginal people were not recognized as full citizens of Australia until 1967. In that year, 91 percent of the Australian people voted to allow the federal government to pass special laws about Aboriginal rights.

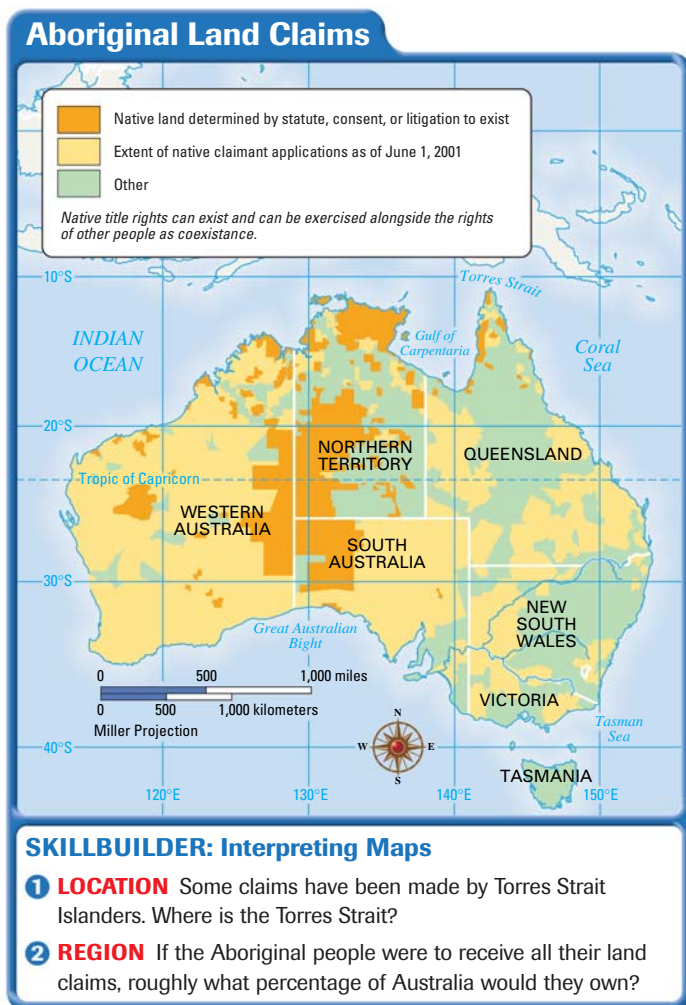
The **Land Rights Act of 1976** gave Aboriginal people the right to claim land in the Northern Territory. As a result, Aboriginal people gained ownership of the reserves where they were living and some unoccupied land that the government had owned.

THE MABO CASE In 1992, the High Court of Australia handed down a decision that had a tremendous effect on land claims. The case involved Eddie Mabo, a Torres Strait Islander. Mabo had been shocked to learn that under Australian law, his family did not own their traditional lands in the Murray Islands. But because the Mabos had worked the land for generations, the High Court upheld Eddie Mabo's claim. By reaching that decision in the **Mabo Case**, the Court recognized that Aboriginal people had owned land before the British arrived. So the *Mabo* case overturned the doctrine of *Terra Nullius*, by which Britain originally took the land. **B**



Making Comparisons

B How does the *Mabo* decision compare with Britain's original view of Aboriginal land ownership?





PLACE This giant outcropping, named Ayers Rock by whites, is called Uluru by the Anangu people. They consider it sacred. In 1985, the Anangu regained ownership of Uluru, but they let it be part of a national park. **How does the current arrangement address the needs of all Australians?**

THE WIK CASE In 1996, the High Court decided another important case. The Wik people, an Aboriginal group, claimed land that some ranchers and mining companies were using. The case involved two issues that are unique to landholding in Australia.

BACKGROUND

About 42 percent of Australia is subject to pastoral leases.

- The government still owns huge chunks of Australia. Ranchers take out **pastoral leases**, in effect renting the land from the government.
- In earlier cases, Aboriginal people had to prove their traditional relationship to a piece of land in order to claim it.

Aboriginal people could not use land that was taken up by farming or ranching, so it was hard to prove they had a tie to such land. And before 1996, white Australians assumed that pastoral leases wiped out any native land claims. But in the **Wik Case**, the court ruled that Aboriginal people could claim land held under a pastoral lease.

As a result, many white Australians feared having to pay Aboriginal people for land use or even losing access to some land altogether. So the national government amended the *Wik* decision to wipe out many Aboriginal land claims. In response, Aboriginal groups threatened lawsuits. No one knows how the issue will be resolved. In Section 2, you will read about industrialization, another issue related to land use.



Assessment

1 Places & Terms

Identify these terms and explain their relationship to the issue of land claims.

- assimilation
- Stolen Generation
- Land Rights Act of 1976
- *Mabo* Case
- pastoral leases
- *Wik* Case

2 Taking Notes

HUMAN-ENVIRONMENT INTERACTION

Review the notes you took for this section.

	Causes	Effects
Issue 1: Land Claims		

- Why did the British believe they could take Aboriginal land?
- How did Eddie Mabo prove his family's land ownership?

3 Main Ideas

- What was the doctrine of *Terra Nullius* and how did it affect land ownership?
- What were reserves?
- Why did the national government amend the *Wik* decision?

4 Geographic Thinking

Distinguishing Fact from Opinion When Britain declared Australia to be *Terra Nullius*, was that a fact or an opinion? **Think about:**

- the meaning of that term
- the Aboriginal relationship to land

See Skillbuilder Handbook, page R11.



MAKING COMPARISONS Research the Nunavut territory in Canada. Write a **proposal** for a documentary that would compare the issue of Aboriginal land claims in Australia with Inuit land claims in Canada. In the proposal, indicate the point of view the documentary would express and the type of photographs and film footage it would use.



Industrialization Sparks Change

How does industrialization affect cities?

A HUMAN PERSPECTIVE Some of the largest employers in Southeast Asia are makers of athletic shoes. They provide much-needed jobs for Southeast Asians, but many observers have accused the companies of abusing workers. For example, in 1995, Lap Nguyen began working at a shoe factory in Vietnam. In February 1996, she was promoted to team leader. A month later, she claimed that a manager who was upset about production hit her. Nguyen told a U.S. reporter about the incident.

In 1998, Nguyen talked to the press again, this time about low wages. Her managers were upset about the interview, and she eventually lost her job. The company said that she was a bad worker, but labor groups believe Nguyen lost her job for talking to reporters. As her story shows, growing industries create jobs but sometimes under harsh conditions.

Moving to Find Jobs

For many people struggling to escape poverty, any job—even one with long hours, low pay, and abusive managers—is better than none. For example, Deth Chrib of Cambodia works in a garment factory 16 hours a day, 7 days a week. She is glad she can support her family without resorting to illegal activities. Although her day is long, Deth Chrib says the job is “pretty easy, compared to working on a farm.” Across Southeast Asia, people are moving from farms to cities to find work.

Because of this, **industrialization**, or the growth of industry, and the growth of cities are closely linked. It is impossible to study industrialization without studying urban growth. People move to cities because of **push-pull factors**. Push factors are forces that push people out of their homelands, while pull factors pull them to a new place.

PUSH FACTORS Many forces drive rural people off their land. Push factors in Southeast Asia include the following:

- **Lost Resources** Rural areas are suffering soil erosion, deforestation, and water overuse. For example, Thailand has a water shortage in farming areas because of overpumping. Scarce resources make it hard to earn a living.

Main Ideas

- The growth of industry in Southeast Asia has produced positive results such as new jobs and higher wages.
- The growth of industry also produced negative results such as overcrowded cities and pollution.

Places & Terms

industrialization

push-pull factors



The Voyageur Experience in World Geography

Singapore: Industrialization and Migration

PLACE These Cambodian women work in a factory that makes blue jeans for export to the United States and Europe.

Why do you suppose this industry hires so many women?





- **Scarcity of Land** In the Philippines, for example, 3 percent of the country's landowners hold 25 percent of the land. Sixty percent of rural families don't have enough land to earn a living by farming.
- **Population Growth** As populations grow, land shortages become worse. Farmers who do own land often divide it among many heirs. As a result, the plots become too small to support a family.

PULL FACTORS Equally powerful forces attract people to cities. In Southeast Asia, pull factors include the following:

- **Industry** The opportunity to find a factory job is the biggest pull factor. Many people move to the city temporarily to earn money to send to relatives in rural areas. In 1993, workers in the Philippines sent \$2.2 billion home, while Thai workers sent \$983 million home.
- **Other Benefits** People move to cities seeking other benefits besides jobs, such as education and government services. However, the desire for education is usually related to a desire for jobs.

IMPACT ON CITIES As is true of cities all over the world, the cities of Southeast Asia are having difficulty dealing with such large numbers of immigrants. The availability of housing has not kept pace with the growing city population. As a result, many new arrivals live in slums.

A larger population generates more pollution. Traffic has increased because greater numbers of workers drive to jobs and greater numbers of trucks transport goods. This causes more air pollution; high levels of particulates are the most serious concern. In Bangkok, Thailand, an estimated 5,000 people a year die from breathing polluted air.

Another problem is the disposal of human waste. Most Southeast Asian cities do not have facilities to treat all their sewage. Untreated sewage, in turn, contaminates water supplies.

MOVEMENT Many rapidly growing Southeast Asian cities are overcrowded. That is one of several factors creating slums, such as this one in Jakarta, Indonesia. **Why would high rates of migration to cities cause overcrowding?**

BACKGROUND

As you learned in Chapter 14, particulates are very small particles of liquids or solids.


Other Results of Industrialization

The growth of industry in Southeast Asia has done more than create rapidly growing cities. It has also affected the economy and the environment.

ECONOMIC EFFECTS Several Southeast Asian countries have had rapid industrial growth since the 1960s. (See Chapter 31.) One result of this has been an increase in trade and exports.

As industry has grown, the region has seen higher incomes for some citizens. In many Southeast Asian countries, the middle class is expanding. But the income gap between rich and poor remains high. This has the potential to cause social unrest because crime rates often rise in societies in which a few people have wealth while high numbers of people live in poverty. You learned about income gaps in Unit 3.

ENVIRONMENTAL EFFECTS Population growth is not the only cause of increased air and water pollution. Industry can also damage the environment. Factories can pollute the air by burning fossil fuels, and the water and soil by carelessly disposing of toxic materials.


The nature of industry in Southeast Asia makes it hard to control such pollution. A single city may contain thousands of factories and shops. Many of these industries are very small, but together they create a great deal of waste. For example, 30,000 factories in Jakarta, Indonesia, discharge pollutants into the waterways. 

Industry has also harmed the environment by using up valuable resources such as water and trees. For instance, textile companies in Bandung, Indonesia, have built illegal wells that deplete water supplies. As a result, some neighborhoods in that city have no water.

In the future, Southeast Asia must reduce the negative effects of industrialization while promoting the positive effects. Cities need to find ways to provide housing and services for all residents. Southeast Asian nations must continue to grow economically, so their citizens will have increased opportunities. The region as a whole must preserve its environment, or industries may abandon the region once its resources are gone. In the Case Study that follows, you will read about environmental changes such as global warming and the hole in the ozone layer.



Making Comparisons

 Would it be harder to monitor the pollution created by a few large factories or many small factories? Why?



Assessment

1 Places & Terms

Identify these terms and explain their relationship to recent events in Southeast Asia.

- industrialization
- push-pull factors

2 Taking Notes

MOVEMENT Review the notes you took for this section.

	Causes	Effects
Issue 2: Industrialization		

- Why does industrialization often lead to urbanization?
- What factors push people out of rural areas?

3 Main Ideas

- What are good and bad aspects of factory work?
- What are the environmental effects of industrialization?
- What are the economic effects of industrialization?

4 Geographic Thinking

Drawing Conclusions If industries in Southeast Asia continue to use up the region's resources, how might that affect urban growth? **Think about:**

- the push factors that drive people out of rural areas



RESEARCH LINKS
CLASSZONE.COM



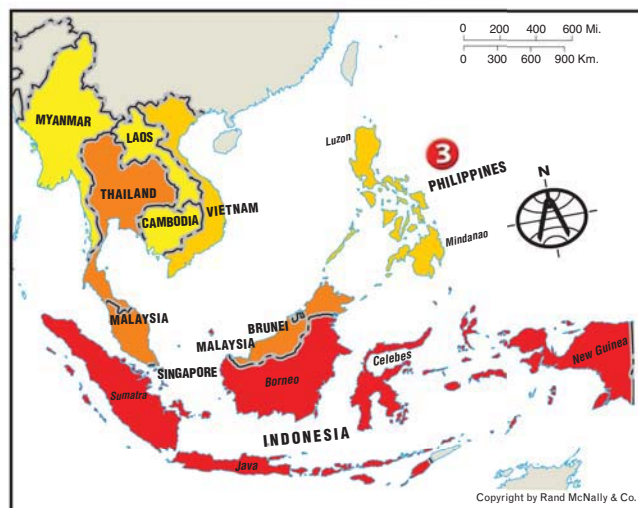
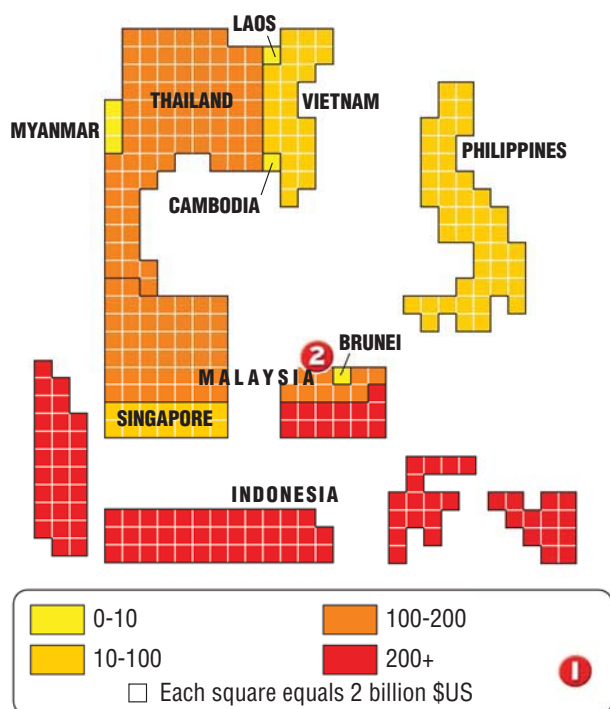
ASKING GEOGRAPHIC QUESTIONS Study the cartogram of industrial output on page 733. Write three geographic questions about it, such as "What geographic factors enable Thailand to have more industrial output than its neighbors?" Choose one of your questions, do research to find the answer, and write a **report** about what you learn.

Interpreting a Cartogram

Even though Southeast Asia has been experiencing industrial growth as a region, not all Southeast Asian nations have prospered equally. A table listing the value of industrial output for the ten countries would give this information in numerical form. A cartogram shows the information visually.

THE LANGUAGE OF MAPS A **cartogram** is a special type of map that conveys a set of data, such as population or GDP. The sizes of the nations on the map are adjusted to reflect the amounts of data each one has. The cartogram below shows the value of industrial output for the nations of Southeast Asia.

Industrial Output of Southeast Asia



- 1 The key of this cartogram helps you to interpret the value of industrial output in two ways. It tells you that each small square equals 2 billion U.S. dollars. It also identifies the colors that the cartogram uses to identify ranges of output.
- 2 Cartograms adjust the sizes of countries to convey relative quantities. The countries' shapes are altered because a cartogram uses squares or straight lines.
- 3 Comparing a cartogram to a conventional map can show which countries have more or less of the data under study than you would expect from looking at their size alone.

Map and Graph Skills Assessment

1. Analyzing Data

According to the cartogram, how much industrial output does Thailand have?

2. Drawing Conclusions

Which country or countries seem to have a small industrial output compared to their actual size?

3. Drawing Conclusions

Which country or countries seem to have a large industrial output compared to their actual size?

Contents

CRITICAL THINKING AND GEOGRAPHY SKILLS

1.1	Analyzing Data	R2
1.2	Making Comparisons	R3
1.3	Making Inferences	R4
1.4	Drawing Conclusions	R5
1.5	Making Generalizations	R6
1.6	Making Decisions	R7
1.7	Seeing Patterns	R8
1.8	Determining Cause and Effect	R9
1.9	Identifying and Solving Problems	R10
1.10	Distinguishing Fact from Opinion	R11
1.11	Creating a Sketch Map	R12
1.12	Creating Graphs and Charts	R13

USING TECHNOLOGY SOURCES

2.1	Creating a Multimedia Presentation	R14
2.2	Creating and Using a Database	R15

1.1 Analyzing Data

Defining the Skill

Analyzing data means studying quantitative information—numbers, proportions, and similar statistics. Data are often presented graphically, in graphs, charts, and maps. When you analyze data, you find patterns, make generalizations and comparisons, and locate facts.

Applying the Skill

The following line graph is titled “World Population Growth.” Use the listed strategies to analyze the data presented.

How to Analyze Data

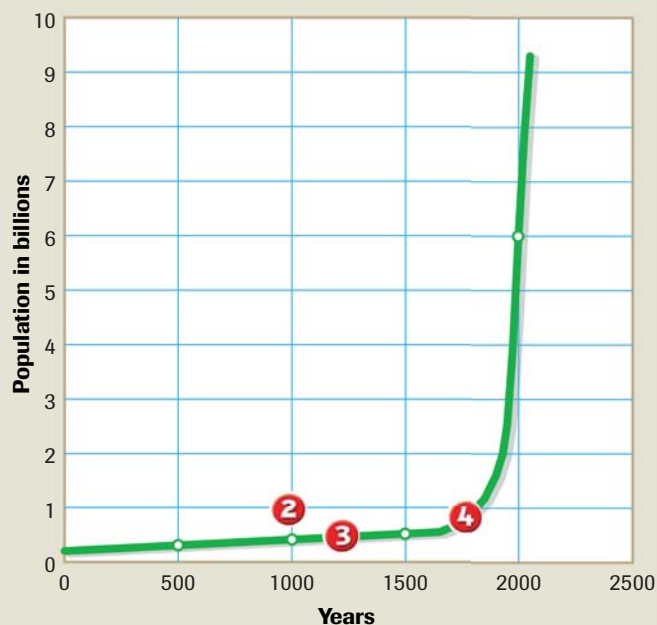
Strategy 1 Rephrase the title given for the graphic as a question that can lead you to its main idea. For example: “How has world population growth changed over time?”

Strategy 2 To understand how data are displayed, choose one point on the graph. Identify what piece of data is shown at that point. For example, in the line graph, the point on the line that is right above the horizontal number 1000 represents how many billions of people lived in the world in the year 1000—just under one-half billion.

Strategy 3 Make a comparison between two points or other parts on the graph. For example, compare the rate of world population growth between 1000 and 1500 with the rate over the following 500 years. You can see that the population barely grew at all between 1000 and 1500, but increased significantly between 1500 and 2000.

Strategy 4 Answer the question you posed in Strategy 1 in order to summarize data and note a general pattern.

1 World Population Growth



SOURCE: *The World Almanac*, 2000

Write a Summary

Summarize the most important idea in your analysis of the data shown. This summary statement might, for example, answer the question suggested by the graph title.

4 *The world's population did not even reach the 1-billion mark until the 1800s, but skyrocketed after that and is on its way to 10 billion.*

Practicing the Skill

Turn to Chapter 31, Section 1, “Southeast Asia.” Find the feature on page 707 titled “Industrialization.” Analyze the data in the bar graph shown. Write a summary of your analysis.

1.2 Making Comparisons

Defining the Skill

Making comparisons means thinking about similarities and differences. Two or more concepts are grouped together because of shared features, but they are distinguished from one another by other features.

Applying the Skill

The following passage tells about economic development. Use the listed strategies to compare two categories of nations.

How to Make Comparisons

Strategy 1 Note the concepts being compared. In this passage, categories of economic development are described.

Strategy 2 Look for words that signal similarities such as *both*, *same*, *similar*, and *like*. Look for words that signal differences or contrasts such as *different*, *in contrast*, *however*, and *on the other hand*.

Strategy 3 Sum up what you have learned by telling yourself (a) what concepts are being compared; (b) why they are grouped together; and (c) what their main differences are.

LEVELS OF ECONOMIC DEVELOPMENT

1 Countries of the world have two different levels of economic development. Developing nations have a low GDP per capita. (GDP is Gross Domestic Product, the value of goods and services produced within a country over a year or other period of time.) Developing nations also have limited development on all levels of economic activities. These countries lack an industrial base and struggle to provide for their citizens' basic needs. Many young countries and former colonies are found in this category.

Developed nations, **2** on the other hand, are countries with a high per capita income and varied economy. Western European nations, Canada, and the United States are highly developed economies.

Make a Chart

One way to sum up the main points of comparison is with a chart that lists features. The chart below is based on the example passage.

3	<i>Developing nations</i>	<i>Developed nations</i>
<i>GDP per capita</i>	<i>low</i>	<i>high</i>
<i>Variety of economic activities</i>	<i>limited development; lack of industrial base</i>	<i>varied economy</i>
<i>Examples</i>	<i>young countries, former colonies</i>	<i>Western European nations, Canada, U.S.</i>

Practicing the Skill

Turn to Chapter 5, Section 3, "Human-Environment Interaction." Read "Building Cities" on page 128. Identify the main similarities and differences described, and show them in a chart.

1.3 Making Inferences

Defining the Skill

Making inferences involves using information that is directly stated in the text in order to think of, or infer, ideas that are not directly stated. You use logic and your own experience and knowledge to make inferences.

Applying the Skill

The passage below tells about a feature of the climate of South Asia. Use the listed strategies to make inferences about monsoons.

How to Make Inferences

Strategy 1 Find statements of fact and other stated ideas, such as opinions and generalizations.

Strategy 2 Ask yourself questions about the stated facts and ideas. Think of likely answers that are not directly stated. For example, the passage states that dry winds blow between October and May, and moist winds blow between June and September. Ask, “What else can I understand from that information?”

Strategy 3 Make inferences from the facts and ideas. For example, you might infer that the region has two main seasons—a long dry one and a shorter wet one.

MONSOONS

- 1** Although climate varies throughout South Asia, the region as a whole is greatly affected by monsoons, or seasonal winds. **2** Between October and May, dry winds blow across South Asia from the northeast. **2** Between June and September, the winds reverse and blow in from the southwest, bringing moist air from the ocean. **1** Heavy rains fall, especially in the southern and eastern portions of South Asia.
- 1** Rainfall is crucial to life on the subcontinent. Yet the monsoons can cause severe hardship for millions of South Asians, especially those living in the lowlands of India and Bangladesh. The monsoons are also highly unpredictable. Some areas may get too little rain, while others get too much. The monsoons are an essential but difficult feature of life in South Asia.

Make a Chart

A chart can show the inferences made from stated facts and ideas. The chart below is based on the passage you just read.

1 Stated Facts and Ideas	2 Questions	3 Inferences
The direction of the winds shifts seasonally, from the northeast to the southwest.	What causes the wind patterns to change?	Wind patterns change as Earth changes its position relative to the sun.
Heavy rains follow from winds coming from the ocean.	How do ocean winds carry water?	Water evaporates from the ocean, is carried by the air, and condenses over land.
The monsoons can cause severe hardship, especially in the lowlands.	What problems do the monsoons cause in the lowlands?	Damaging floods can result from monsoon rains.

Practicing the Skill

Turn to Chapter 25, Section 2, “India’s Neighbors: Pakistan and Bangladesh.” Read the subsection “New Countries, Ancient Lands,” on pages 573–574. Use the facts and ideas to infer other ideas. Show your inferences in a chart.

1.4 Drawing Conclusions

Defining the Skill

Drawing conclusions means combining factual information with your own reasoning to formulate a statement that is likely to be true. To draw conclusions, look at the facts and think about what they mean.

Applying the Skill

The following passage offers facts about two of the world's largest lakes. Use the listed strategies to draw conclusions about the information.

How to Draw Conclusions

Strategy 1 Read carefully to identify and understand the statements of fact, the items of information that can be proved true.

Strategy 2 Think about which facts fit together and how they fit. List the facts in a diagram and use your own experiences to understand how the facts relate to each other.

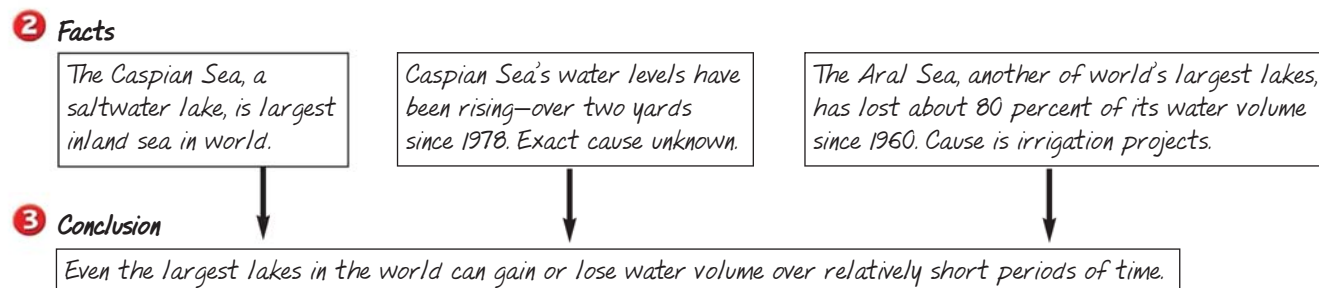
Strategy 3 Come up with a statement, different from one given in the text, that draws a conclusion about the factual information.

TWO LARGE LAKES OF CENTRAL ASIA

- 1 The Caspian Sea, which is actually a saltwater lake, stretches for nearly 750 miles from north to south, making it the largest inland sea in the world. 1 Recently, the Caspian's water levels have been rising, and have flooded many surrounding villages and towns. 1 The sea now stands over two yards higher than it did in 1978. Nobody is certain what is causing the change. But scientists say possible causes might include climate change or more water flowing off deforested land.
- 1 The Aral Sea, another of the world's largest lakes, lies east of the Caspian. 1 Unlike the Caspian, the Aral Sea is shrinking. 1 Extensive irrigation projects have diverted water away from the lake.
- 1 Since 1960, the Aral has lost about 80 percent of its water volume.

Make a Diagram

A diagram can highlight the facts that fit together to point to a conclusion. The diagram below shows a conclusion that can be drawn from the passage above.



Practicing the Skill

Turn to Chapter 10, Section 1. Read the subsection "Native Americans and the Spanish Conquest" on page 216. Make a diagram to show selected facts and the conclusion you drew from them.

1.5 Making Generalizations

Defining the Skill

Making a generalization means making a broad statement that applies to a number of examples. Generalizations can be made from examples given in one passage, in several sources, or from graphic aids.

Applying the Skill

The following two passages present examples on the same topic. Use the listed strategies to make a generalization based on the examples.

How to Make Generalizations

Strategy 1 Note the examples given on the same topic.

Strategy 2 Use a term such as *generally* or *usually* as you decide what the examples have in common.

Strategy 3 Formulate a logical, general statement that applies to all examples.

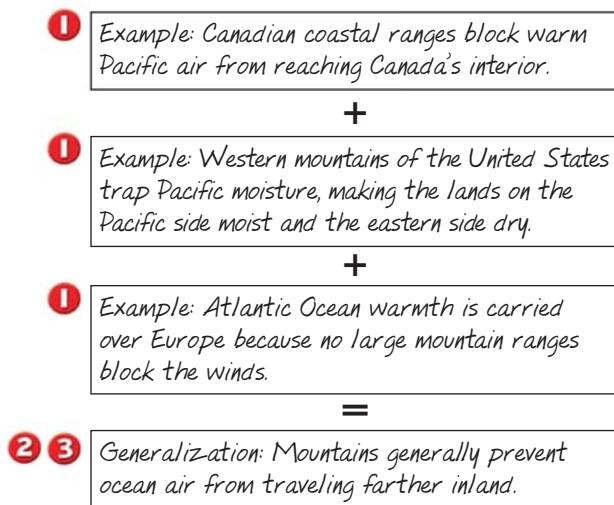
OCEANS AND MOUNTAINS

1 The Canadian coastal ranges prevent the warming of Canada's interior by blocking warm Pacific air. **1** In the United States, the western mountains trap Pacific moisture. This makes the climate in the lands to the west of the mountains rainy and those to the east very dry.

The North Atlantic Drift, a current of warm water from the tropics, flows near Europe's west coast. The prevailing westerlies, which blow west to east, pick up warmth from this current and carry it over Europe. **1** No large mountain ranges block the winds, so the influence of the westerlies extends far inland.

Make a Diagram

A diagram can show how examples add up to a generalization. The diagram below is based on the passages you just read.



Practicing the Skill

Find passages about the humid continental climate of the United States and Canada (page 124), of Europe (page 279), and of East Asia (page 626). Make a diagram to show examples and a generalization.

1.6 Making Decisions

Defining the Skill

Making decisions means choosing between two or more courses of action. When you analyze the decisions people have made, you think about the needs they were trying to meet and the consequences of each choice.

Applying the Skill

The following passage describes the problem of rapid population growth facing the Chinese government. Use the listed strategies to analyze the decisions made.

How to Make Decisions

Strategy 1 Look for a statement of the difficulty. Think about the choices facing the group.

Strategy 2 Consider possible consequences of each choice.

Strategy 3 Identify the decisions that were made.

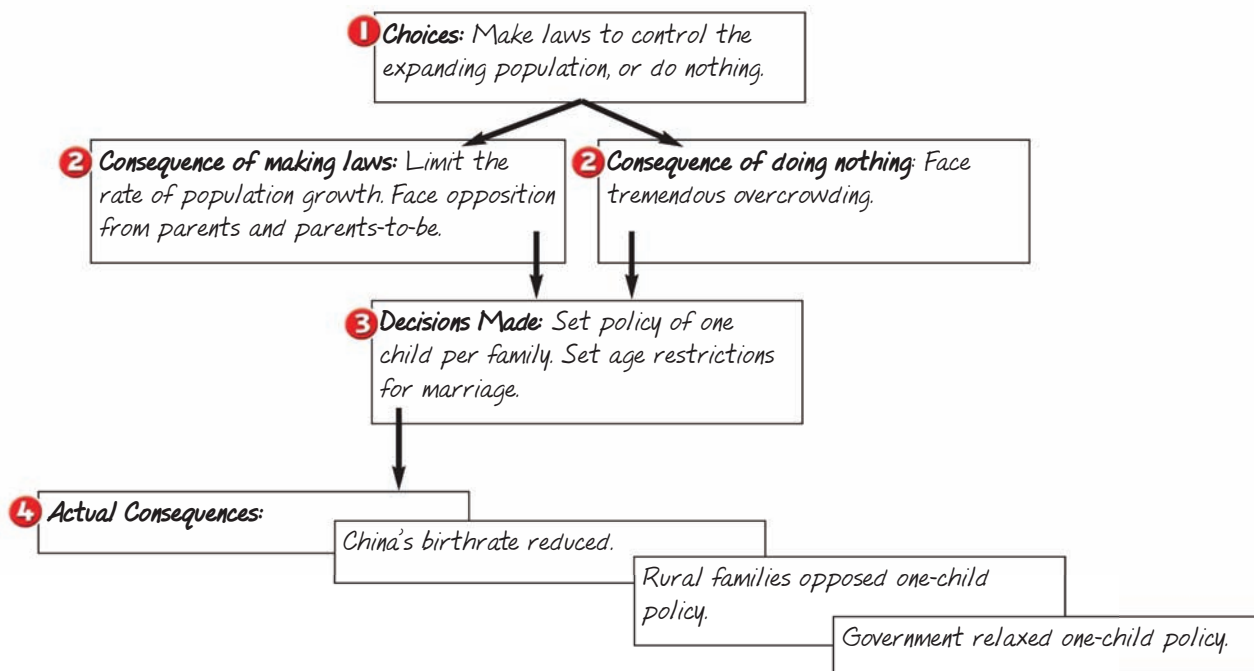
Strategy 4 Identify actual consequences.

CONTROLLING CHINA'S POPULATION

One out of every five people in the world lives in China. China's estimated population in the year 2000 was about 1.3 billion. **1** Because of concerns about a rapidly expanding population, **3** China in 1979 adopted a policy of one child per family. In addition, the country has age restrictions for marriage—a man must be 22 and a woman 20 before they can marry. **4** These policies have reduced China's birthrate dramatically. **4** However, the government policy of one child per family has run into opposition. Rural families, in particular, feel the need for more than one child to help work on their farms. **4** As a result, the government has relaxed the one-child policy.

Make a Flow Chart

The process of decision-making can be shown in a flow chart. The flow chart below summarizes the decisions described in the passage you just read.



Practicing the Skill

Turn to Chapter 23, Section 1. Read "New Industry Requires More Workers," on pages 525–526. Make a flow chart to show the choices faced by the nations' governments and the consequences of the decisions made.

1.7 Seeing Patterns

Defining the Skill

Seeing patterns involves seeing the overall shape, organization, or trend of geographic characteristics. It often means noting variations or contrasts, and thinking about the “rules” that describe them and could apply to similar situations. Seasonal weather cycles are one example of a pattern; economic changes are another. Graphs, maps, charts, and text passages are all sources of information that help you see patterns.

Applying the Skill

The passage below tells about the economics of oil in North Africa. Use the listed strategies to think about the pattern described.

How to See Patterns

Strategy 1 Note any directly stated main ideas about details of geographic characteristics, or changes and contrasts. (If none is directly stated, try to make your own statement of comparison, based on the details in the passage.)

Strategy 2 Notice examples that support the ideas.

Strategy 3 Use the word *pattern* in a question about the information. For this passage, you could ask, “What economic pattern is seen in the oil-producing nations of North Africa?” Your answer will sum up the pattern you see. (The chart below has a possible answer.)

Make a Chart

Make a chart to sum up the pattern. The chart below organizes information from the passage you have just read.

AN OIL-BASED ECONOMY

1 Oil has transformed the economies of some North African countries, including Libya, Algeria, and Tunisia. **2** In Algeria, oil has surpassed farm products as the major export and source of revenue. Furthermore, oil makes up about 99 percent of Libya’s exports.

1 Although oil has helped the economies of these countries, it has also caused some problems. **2** Libya, Algeria, and Tunisia face shortages of skilled labor to carry out this work. For example, Libya’s labor force cannot meet the demands of the oil industry because of a lack of training and education. Oil companies are forced to give many high-paying jobs to foreign workers. Even within the oil industry, overall unemployment is still a problem. As a result, large numbers of North Africans have migrated to Europe in search of jobs.

1 Main Ideas About Contrasts and Changes	2 Examples	3 Summary Statement of Pattern
The oil industry has transformed the economies of some North African countries.	Algeria—oil major export and revenue source. Libya—oil about 99 percent of exports.	A single industry can power the economy of a nation, but an unskilled labor force may not benefit.
Oil helps the economy but also causes problems.	Libya, Algeria, Tunisia face shortages of skilled workers. Libya—labor force lacks training and education. Foreign skilled workers get high-paying jobs. Unemployment, emigration.	

Practicing the Skill

Turn to Chapter 19, Section 5, “Southern Africa.” Read the subsection “Success at a Cost” on pages 455–456. Use the information in it to sum up the pattern you see. Use standard grammar, sentence structure, and punctuation in your summary.

1.8 Determining Cause and Effect

Defining the Skill

A **cause** is why something happens. An **effect** is what happens. A single cause can lead to one effect or multiple effects. One effect can have multiple causes. Cause-effect chains are also common, in which a cause leads to an effect that becomes the cause of another effect, and so on.

Applying the Skill

The following paragraphs sum up major events in the recent European past. Use the listed strategies to analyze the cause-effect relationships.

How to Determine Cause and Effect

Strategy 1 Use the word *why* to formulate questions about the topic of the passage.
Example: *Why was there conflict in Europe?*
The answers you find will be the causes.

Strategy 2 Look for words such as *because*, *cause*, *in order to*, and *reason*, which signal causes. Look for words such as *so*, *consequence*, and *result*, which signal effects.

Strategy 3 Restate the cause-effect connections in your own words or in a diagram.

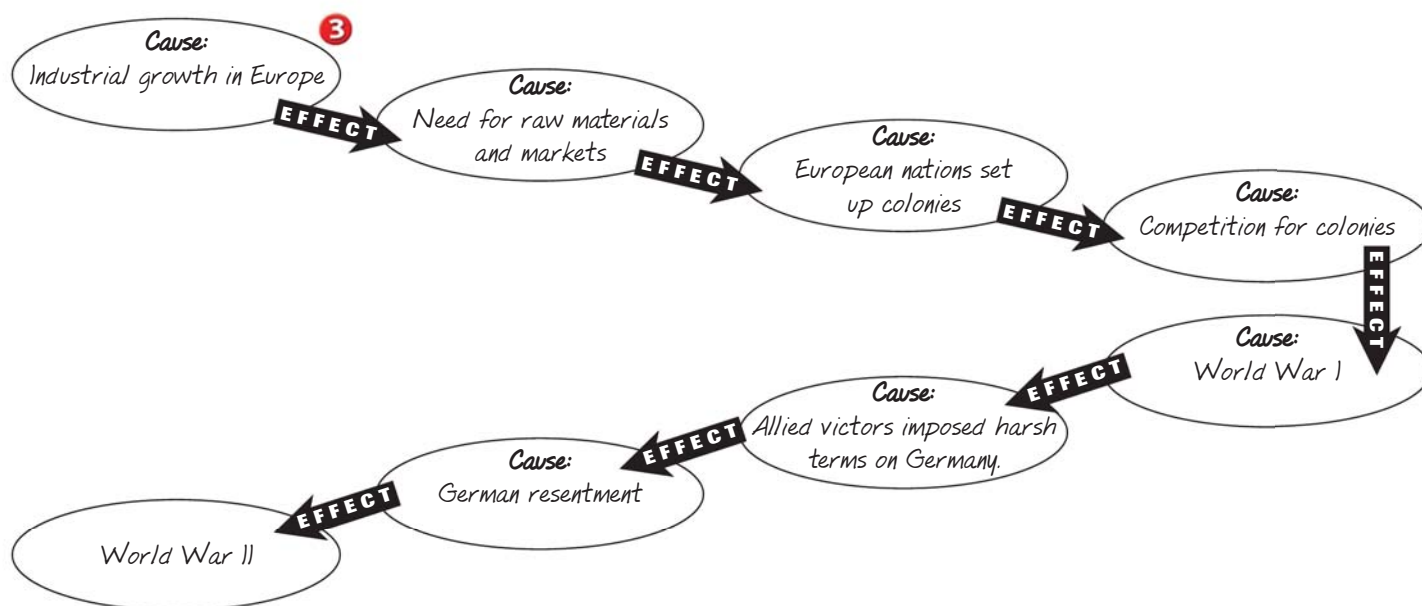
1 CONFLICT IN EUROPE

Western Europe experienced industrial growth in the 1800s. **2** Industrialism caused European nations to set up colonies in other lands in order to gain raw materials and markets. Many European nations saw each other as rivals in the race to gain colonies.

2 The nationalistic rivalry and competition for colonies among European nations helped cause World War I. The Allied Powers (including France) fought the Central Powers (Germany, Austria-Hungary, and their allies). The Allies won and imposed harsh terms on Germany. **2** German resentment over those terms helped cause World War II, in which Germany, led by Adolf Hitler and the Nazis, tried to conquer Europe.

Make a Diagram

A diagram can show how causes and effects are connected. Because the example passage tells how one event led to another, a cause-effect chain is a useful way to diagram its major ideas.



Practicing the Skill

Turn to Chapter 10, Section 4. Read the subsection "Native Peoples and Portuguese Conquest" on page 236. Make a diagram to show major cause-effect connections.

1.9 Identifying and Solving Problems

Defining the Skill

Identifying and solving problems means analyzing the difficulties that are faced by individuals and groups. You determine why the difficulties exist, how people try to overcome them, and what solutions, if any, are achieved.

Applying the Skill

The following paragraph describes a general problem related to the issue of national boundaries, and offers a particular African nation as an example. Use the listed strategies to understand the problem-solution connection.

How to Identify Problems and Solutions

Strategy 1 Look for a statement of the problem. Note words such as *problem*, *conflict*, *difficulty*, or *controversy*. Use the details to ask yourself why the problem exists, and why people wish to overcome it.

Strategy 2 Identify attempts to solve the problem.

Strategy 3 Think about the outcome. Ask yourself whether the problem is solved, or whether the outcome is likely to lead to more difficulties.

ARTIFICIAL NATIONAL BOUNDARIES

Africa is a good example of how **1** boundary lines can divide groups of people or put groups that have long been enemies together in one state. When parts of Africa were divided by European colonial powers, **1** the boundary lines for Nigeria enclosed the traditional lands of the Hausa-Fulani people, the Yoruba people, and the Ibo people. Under British control, the three groups were forced to follow British rules. When Britain left, there was controversy over the control of the lands. **2** One group, the Ibo, attempted to withdraw from Nigeria and form its own nation-state, Biafra. **3** A civil war resulted, and the attempt to split away failed.

Make a Chart

A chart can help you take notes and sum up important ideas about problems and solutions. The chart below shows problems and solutions in the passage you just read.

1 Problem	Solution Attempts 2	Outcome 3
Nigerian boundary lines artificially enclose the traditional lands of three groups of people.	One group, the Ibo, attempted to form a separate nation-state.	Civil war. Attempt to split away failed.

Practicing the Skill

Turn to Chapter 8, Section 2, "Urban Sprawl." Read "Urban Sprawl's Negative Impact" and "Solutions to Sprawl." Make a chart to sum up the problem and possible solutions. Write a summary of the information presented in your chart using standard grammar, sentence structure, and punctuation.

1.10 Distinguishing Fact from Opinion

Defining the Skill

Facts are dates, numbers, names, and statements that can be proved true. **Opinions** are statements that express beliefs, values, and feelings. Although opinions cannot be proved true or false, they can be supported with facts and logical reasons. In order to decide whether to agree with stated opinions, readers must first separate opinion from fact.

Applying the Skill

The following paragraph tells how human-environment interaction affects climate and vegetation. Use the strategies listed below to distinguish fact from opinion.

How to Distinguish Fact from Opinion

Strategy 1 Notice words that reveal the author's beliefs or feelings. In the sample paragraph, *unfortunately* and *careless* show that opinions are being expressed.

Strategy 2 Look for statements about future events. These statements are opinions because they cannot be proved.

Strategy 3 Look for facts that are given as supporting reasons for the statements of opinion.

Strategy 4 Identify ways in which you can check the facts.

HUMAN IMPACT ON THE ENVIRONMENT

1 Unfortunately, the damage that humans cause to soil and vegetation is a by-product of human-environment interaction. **3** Fragile biomes such as the tundra are easily damaged. Oil pipelines crisscross tundra regions and **2** bring the threat of leakage and spills. . . .

In the United States, millions of people choose to live in the desert southwest, part of a region known as the Sunbelt. **3** The desert land is easily eroded, and housing sub-divisions destroy vegetation. In other regions of the world, **1** careless use of the land often leaves it in a condition that **2** will not support life, even with sophisticated technological intervention.

Make a Chart

The chart below analyzes the facts and opinions from the passage above.

Opinion 1 2	Supporting Facts 3	How to Check Facts 4
Human-environment interaction results in unfortunate damage to soil and vegetation.	Fragile biomes such as the tundra are easily damaged. The desert land of the Sunbelt is easily eroded. Housing sub-divisions destroy vegetation.	Research current articles about human-caused damage to tundra. Research current articles about desert erosion in Sunbelt region. Research current articles about effects of development on vegetation in desert southwest.
The tundra is threatened with oil leakage and spills.	Oil pipelines crisscross tundra regions.	Research oil-industry and news sources.
Careless use of the land often leaves it in a condition that will not support life, even with sophisticated technological intervention.	None given	

Practicing the Skill

Turn to Chapter 3, Section 2, and read the passage "Global Warming." Show opinions and supporting facts in a chart.

1.11 Creating a Sketch Map

Defining the Skill

When you are reading about routes, regions, landforms, political boundaries, or any other geographical information, try to visualize what is described. One way to clarify the information is by **creating a sketch map**. To sketch your own map, use one or more published maps as guides.

Applying the Skill

After reading the passage below, a student sketched the map shown. Read the listed strategies to see how the map was created.

WESTWARD MOVEMENT

From departure points such as Independence, Missouri, hundreds of thousands of pioneers left in covered wagons bound for the West. They blazed trails that crossed prairie, plains, desert, and mountains, moving toward the Pacific. A wagon train on the Oregon Trail might take up to six months to reach its destination 2,000 miles away.

How to Create a Sketch Map

Strategy 1 Choose a title that sums up what you will show in the map.

Strategy 2 Consider the purpose of the map as you decide which standard features need to be included. Because the main purpose of this sketch map is to show journeys, it includes a scale of distance. Other maps may require lines of latitude and longitude, for example, and a compass rose.

Strategy 3 Find one or more maps that you can use to guide the placement of elements and labels. For this sketch, the student consulted a historical map and a physical map.

Strategy 4 Create a legend to explain any symbols or colors used.

Wagon Trains Head West 1



Practicing the Skill

Turn to Chapter 12, Section 1. Read the introductory paragraph "A Human Perspective" on page 273. Create a sketch map of the route of Hannibal's troops. Include the map elements needed to show why Hannibal's achievement was so remarkable.

1.12 Creating Graphs and Charts

Defining the Skill

Whenever your research provides you with information involving numbers and quantities, you can **create graphs and charts** to show patterns in your data. Software programs tend to use the terms *graphs* and *charts* interchangeably. Kinds of graphs and charts include bar graphs, line graphs, pictographs, and pie graphs, which are also called pie charts. The kind you choose depends on your data.

Applying the Skill

The three visuals below are a pie chart, a bar graph, and a line graph. Use the listed strategies to think about their purposes and parts.

How to Create Graphs and Charts

Strategy 1 Organize your numerical data. Make a table with rows and columns, or use the grid layout of a spreadsheet. The headings in your table or spreadsheet will correspond to labels in your graph.

Strategy 2 Choose the type of graph to create. Are you showing changes over time? A line graph might be best. Are you making a series of comparisons? Consider a bar graph. Do you want to show how parts make the whole? A pie chart shows percentages.

Strategy 3 In line and bar graphs, plot the data along the axes. The X-axis is horizontal; the Y-axis is vertical. Make sure that both axes are labeled with words or numbers.

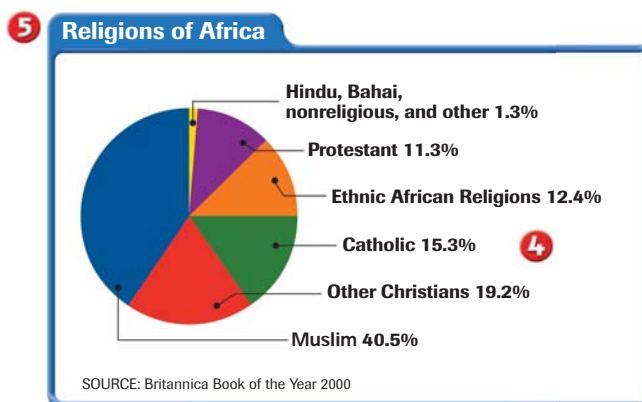
Strategy 4 Include a legend to indicate what each bar, line, or section represents.

Strategy 5 Add a title.

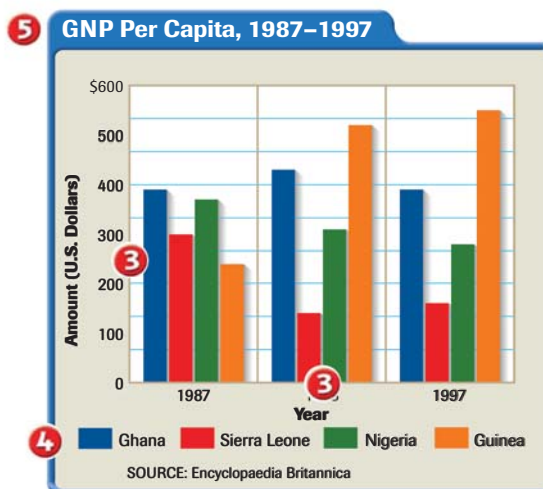
Practicing the Skill

Turn to Chapter 6, Section 3. Look at the data listed on page 147, accompanying the subsection "The Midwest." Show the data in two clearly labeled pie charts. Use graphing software if possible. Write a generalization about the information in each chart using standard grammar, sentence structure, and punctuation.

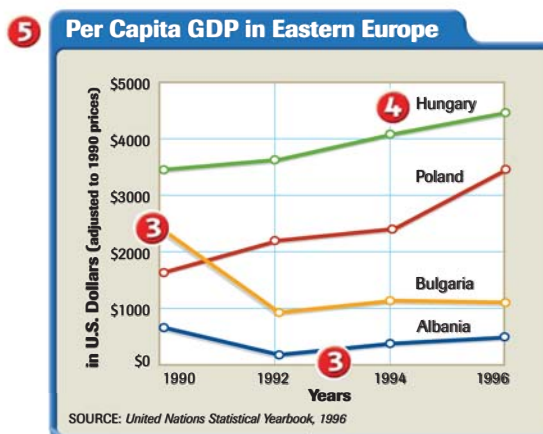
2
Pie Chart



2
Bar Graph



2
Line Graph



2.1 Creating a Multimedia Presentation

Defining the Skill

Print is a medium of communication. Video and audio recordings, Web pages, and photographic slides are other examples of media. To **create a multimedia presentation**, you collect and display information so that your audience watches, listens, and learns.

Applying the Skill

A multimedia presentation can incorporate high-tech electronics, but it does not have to. A photo essay with audio background, for example, is also an effective multimedia presentation. Use the listed strategies to create your own multimedia presentation.

How to Create a Multimedia Presentation

Strategy 1 Choose a topic that lends itself to multimedia. Consider using still or moving images, a script for one or more speakers, sound effects, and music. You might create a travelogue, for example, in which you show your audience a place, and develop a narrative to go with the visual images.

Strategy 2 Research the topic to get a general overview. Then narrow the topic to one of manageable size. Make an outline to show the steps you will take to develop your presentation.

Strategy 3 Collect information. Then select the text, images, and audio you plan to use. Show your plan graphically, using a storyboard format, for example.

Strategy 4 Put your presentation together.



Practicing the Skill

Turn to Chapter 4 and read Section 4, "Urban Geography." Choose a topic that you think will work well for a multimedia presentation. Do research, narrow the topic, and make an outline for a future presentation.

2.2 Creating and Using a Database

Defining the Skill

A **database** is any listing system in which related information is organized so that particular items can be retrieved. An electronic library catalog is an example of a database; new information can be added based on the categories, and users input search terms in order to pull out specific listings. Specialized software programs are used to create large, complex databases. Spreadsheet programs are frequently used to create less complex databases.

Applying the Skill

The table below is part of a database for statistics about the countries of Latin America. Use the listed strategies to understand the organization of a database.

How to Create or Use a Database

Strategy 1 Identify or name the topic of the database table.

Strategy 2 Define or identify the categories of data. In a computer database, these categories are called fields, and correspond to column headings. A field can specify names, dates or other numbers, or text.

Strategy 3 The data in each row of a database table form a record. The records are sorted by a particular field—usually alphabetically, or numerically in ascending or descending order. In the table shown, the records are sorted alphabetically by country name.

Strategy 4 To find a particular piece of data in an existing database, choose a search criterion. The table shown could lead to a list of all countries in which life expectancy is 70 or lower, for example.

1 Regional Statistics: Latin America (year 2000 estimates)				
Country/Capital 2	Population 2	2 Life Expectancy 2 Birthrate per in years (1995–2000) 1,000 pop.	2	Infant Mortality 2 per 1,000 live births
3 Antigua and Barbuda/St. John's	68,000	71	22	17.1
3 Argentina/Buenos Aires	37,048,000	73	19	19.2
3 Bahamas/Nassau	310,000	74	21	18.4
Barbados/Bridgetown	259,000	76	14	14.2
Belize/Belmopan	254,000	75	32	33.9
Bolivia/La Paz, Sucre	8,281,000	4 61	30	67.0
Brazil/Brasilia	170,115,000	4 67	21	40.0
Chile/Santiago	15,211,000	75	18	10.5
Colombia/Bogota	40,037,000	4 70	26	28.0
Costa Rica/San José	3,589,000	76	22	12.6

Practicing the Skill

Use spreadsheet or database software to input the following fields from the “Regional Data File” for the 50 U.S. states, shown on pages 110–112: Name of State, Population, Population Density, Total Area (square miles). Sort the data (a) alphabetically by name of state and (b) by population, in descending order.

A

- Aboriginal people** *n.* people who migrated to Australia from Asia at least 40,000 years ago; the original settlers of the land. (p. 718)
- absolute location** *n.* the exact place on earth where a geographic feature is found. (p. 6)
- acculturation** *n.* the cultural change that occurs when individuals in a society accept or adopt an innovation. (p. 72)
- acquired immune deficiency syndrome (AIDS)** *n.* a disease caused by the human immunodeficiency virus, or HIV. (p. 465)
- Aksum** *n.* an important trading capital from the first to the eighth centuries A.D. in what is now Ethiopia; it flourished due to its location near the Red Sea and the Indian Ocean. (p. 431)
- alluvial plain** *n.* land that is rich farmland, composed of clay, silt, sand, or gravel deposited by running water. (p. 553)
- Amazon River** *n.* the second longest river in the world, and one of South America's three major river systems, running about 4,000 miles from west to east, and emptying into the Atlantic Ocean. (p. 203)
- Andes Mountains** *n.* a large system of mountain ranges located along the Pacific coast of Central and South America. (p. 201)
- anti-Semitism** *n.* discrimination against Jewish people. (p. 315)
- apartheid** (uh•PAHRT•HYT) *n.* a policy of complete separation of the races, instituted by the white minority government of South Africa in 1948. (p. 454)
- Appalachian Mountains** *n.* one of two major mountain chains in the eastern United States and Canada, extending 1,600 miles from Newfoundland south to Alabama. (p. 119)
- aqueduct** *n.* a structure that carries water over long distances. (p. 292)
- aquifer** *n.* an underground layer of rock that stores water. (p. 421)
- archipelago** *n.* a set of closely grouped islands. (pp. 553, 689)
- ASEAN** *n.* the Association of Southeast Asian Nations, an alliance that promotes economic growth and peace in the region. (p. 707)
- Ashanti** *n.* a people who live in what is now Ghana, in West Africa, and who are known for their artful weaving of colorful *asasia*, or *kente* cloth. (p. 444)
- assimilation** *n.* a process whereby a minority group gradually gives up its own culture and adopts the culture of a majority group. (p. 728)
- Aswan High Dam** *n.* a dam on the Nile River in Egypt, completed in 1970, which increased Egypt's farmable land by 50 percent and protected it from droughts and floods. (p. 426)
- Atlantic Provinces** *n.* the provinces in Eastern Canada—Prince Edward Island, New Brunswick, Nova Scotia, and Newfoundland. (p. 166)
- atmosphere** *n.* the layers of gases immediately surrounding the earth. (p. 28)
- atoll** *n.* a ringlike coral island or string of small islands surrounding a lagoon. (pp. 553, 700)

B

- balkanization** *n.* the process of breaking up a region into small, mutually hostile units. (p. 311)
- Baltic Republics** *n.* the countries of Latvia, Lithuania, and Estonia, located on the eastern coast of the Baltic Sea. (p. 361)
- Bantu migration** *n.* the movement of the Bantu peoples southward throughout Africa, spreading their language and culture, from around 500 B.C. to around A.D. 1000. (p. 448)
- basic necessity** *n.* food, clothing, and shelter. (p. 593)
- Benelux** *n.* the economic union of Belgium, the Netherlands, and Luxembourg. (p. 296)
- Beringia** *n.* a land bridge thought to have connected what are now Siberia and Alaska. (p. 127)
- Berlin Conference** *n.* a conference of 14 European nations held in 1884–1885 in Berlin, Germany, to establish rules for political control of Africa. (p. 432)
- Berlin Wall** *n.* a wall erected by East Germany in 1961 to cut the capital of Berlin in two, and later dismantled in 1989. (p. 298)
- Bikini Atoll** *n.* the isolated reef, located in the Marshall Islands of the central Pacific, that was the site of U.S. nuclear bomb tests, consequently contaminating the atoll with high levels of radiation and driving its inhabitants away. (p. 700)
- biodiversity** *n.* the variety of organisms within an ecosystem. (p. 245)
- biological weapon** *n.* a bacterium or virus that can be used to harm or kill people, animals, or plants. (p. 175)
- biome** *n.* a regional ecosystem. (p. 65)
- biosphere** *n.* all the parts of the earth where plants and animals live, including the atmosphere, the lithosphere, and the hydrosphere. (p. 28)
- birthrate** *n.* the number of live births per total population, often expressed per thousand population. (p. 78)
- blizzard** *n.* a heavy snowstorm with winds of more than 35 miles per hour and reduced visibility of less than one-quarter mile. (p. 52)
- Boxer Rebellion** *n.* an uprising in China in 1900, spurred by angry Chinese militants, or Boxers, over foreign control; several hundred Europeans, Christians, and Chinese died. (p. 636)
- British Columbia** *n.* Canada's westernmost province, located within the Rocky Mountain range. (p. 169)
- Buddhism** *n.* a religion that originated in India about 500 B.C. and spread to China, where it grew into a major religion by A.D. 400. (p. 638)

C

- calypso** *n.* a style of music that began in Trinidad and combines musical elements from Africa, Spain, and the Caribbean. (p. 227)
- Canadian Shield** *n.* a northern part of the interior lowlands that is a rocky, flat region covering nearly two million square miles and encircling Hudson Bay. (p. 119)
- canopy** *n.* the area encompassing the tops of the trees in a rain forest, about 150 feet above ground. (p. 422)
- capoeira** *n.* a martial art and dance that developed in Brazil from Angolans who were taken there by the Portuguese from Africa. (p. 239)

- Carnival** *n.* the most colorful feast day in Brazil. (p. 239)
- carrying capacity** *n.* the number of organisms a piece of land can support without negative effects. (p. 82)
- Carthage** *n.* one of the great empires of ancient Africa, situated on a triangular peninsula on the Gulf of Tunis on the coast of the Mediterranean Sea. (p. 438)
- cartographer** *n.* a mapmaker. (p. 10)
- cash crop** *n.* a crop grown for direct sale, and not for use in a region, such as coffee, tea, and sugar in Africa. (p. 433)
- caste system** *n.* the Aryan system of social classes in India and one of the cornerstones of Hinduism in which each person is born into a caste and can only move into a different caste through reincarnation. (p. 571)
- Caucasus** *n.* a region that straddles the Caucasus Mountains and stretches between the Black and Caspian seas. (p. 385)
- caudillo** (kow•DEE•yoh) *n.* a military dictator or political boss. (p. 249)
- Central Asia** *n.* a region that includes the republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. (p. 346)
- central business district (CBD)** *n.* the core of a city, which is almost always based on commercial activity. (p. 89)
- cerrado** (seh•RAH•doh) *n.* a savanna that has flat terrain and moderate rainfall, which make it suitable for farming. (p. 202)
- Chang Jiang** *n.* (or Yangtze River) the longest river in Asia, flowing about 3,900 miles from Xizang (Tibet) to the East China Sea. (p. 621)
- chaparral** *n.* the term, in some locations, for a biome of drought-resistant trees. (p. 66)
- Chechnya** *n.* one of the republics that remains a part of Russia after the collapse of the Soviet Union despite independence movements and violent upheaval. (p. 386)
- chemical weathering** *n.* a process that changes rock into a new substance through interactions among elements in the air or water and the minerals in the rock. (p. 43)
- chernozem** *n.* black topsoil, one of the world's most fertile soils. (p. 345)
- cholera** *n.* a treatable infectious disease that can be fatal and is caused by a lack of adequate sanitation and a clean water supply. (p. 465)
- city** *n.* an area that is the center of business and culture and has a large population. (p. 87)
- city-state** *n.* an autonomous political unit made up of a city and its surrounding lands. (p. 289)
- climate** *n.* the typical weather conditions at a particular location as observed over time. (p. 50)
- coalition** *n.* an alliance. (p. 174)
- Cold War** *n.* the conflict between the United States and the Soviet Union after World War II, called "cold" because it never escalated into open warfare. (p. 363)
- collective farm** *n.* an enormous farm in the Soviet Union on which a large team of laborers were gathered to work together during Joseph Stalin's reign. (p. 364)
- Columbian Exchange** *n.* the movement of plants, animals, and diseases between the Eastern and Western hemispheres during the age of exploration. (p. 136)
- command economy** *n.* a type of economic system in which production of goods and services is determined by a central government, which usually owns the means of production. Also called a planned economy. (pp. 91, 364)
- commodity** *n.* an agricultural or mining product that can be sold. (p. 462)
- communism** *n.* a system in which the government holds nearly all political power and the means of production. (p. 83)
- confederation** *n.* a political union. (p. 156)
- Confucianism** *n.* a movement based on the teachings of Confucius, a Chinese philosopher who lived about 500 B.C.; Confucius stressed the importance of education in an ordered society in which one respects one's elders and obeys the government. (p. 638)
- coniferous** *adj.* another word for needleleaf trees. (p. 66)
- constitutional monarchy** *n.* a government in which the ruler's powers are limited by a constitution and the laws of a nation. (p. 580)
- continent** *n.* a landmass above water on the earth. (p. 27)
- Continental Divide** *n.* the line of the highest points in North America that marks the separation between rivers flowing eastward and westward. (p. 120)
- continental drift** *n.* the hypothesis that all continents were once joined into a supercontinent that split apart over millions of years. (p. 29)
- continentality** *n.* a region's distance from the moderating influence of the sea. (p. 350)
- continental shelf** *n.* the earth's surface from the edge of a continent to the deep part of the ocean. (p. 36)
- convection** *n.* the transfer of heat in the atmosphere by upward motion of the air. (p. 54)
- copra** *n.* the dried meat of coconuts. (p. 714)
- core** *n.* the earth's center, made up of iron and nickel; the inner core is solid, and the outer core is liquid. (p. 28)
- crude oil** *n.* petroleum that has not been processed. (p. 497)
- Crusades** *n.* a series of wars launched by European Christians in 1096 to capture the Holy Land (Palestine) from Muslims. (p. 291)
- crust** *n.* the thin rock layer making up the earth's surface. (p. 28)
- cultural crossroad** *n.* a place where various cultures cross paths. (p. 310)
- cultural hearth** *n.* the heartland or place of origin of a major culture; a site of innovation from which basic ideas, materials, and technology diffuse to other cultures. (pp. 72, 222)
- culture** *n.* the total of knowledge, attitudes, and behaviors shared by and passed on by members of a group. (p. 71)
- cyclone** *n.* a violent storm with fierce winds and heavy rain; the most extreme weather pattern of South Asia. (p. 558)
- czar** *n.* the emperor of Russia prior to the Russian Revolution of 1917 and the subsequent creation of the Soviet Union in 1922. (p. 362)

D

Dead Sea *n.* a landlocked salt lake between Israel and Jordan that is so salty that almost nothing can live in its waters; it is 1,349 feet below sea level, making it the lowest place on the exposed crust of the earth. (p. 489)

debt-for-nature swap *n.* a debt-reducing deal wherein an organization agrees to pay off a certain amount of government debt in return for government protection of a certain portion of rain forest. (p. 247)

deciduous *adj.* a named characteristic of broadleaf trees, such as maple, oak, birch, and cottonwood. (p. 66)

deforestation *n.* the cutting down and clearing away of trees and forests. (p. 246)

delta *n.* a fan-like landform made of deposited sediment, left by a river that slows as it enters the ocean. (p. 43)

democracy *n.* a type of government in which citizens hold political power either directly or through elected representatives. (p. 83)

desalinization *n.* the removal of salt from ocean water. (p. 496)

desertification *n.* an expansion of dry conditions to moist areas that are next to deserts. (p. 424)

dialect *n.* a version of a language that reflects changes in speech patterns due to class, region, or cultural changes. (p. 73)

dictatorship *n.* a type of government in which an individual or a group holds complete political power. (p. 83)

diffusion *n.* the spread of ideas, inventions, or patterns of behavior to different societies. (p. 72)

dike *n.* an earthen bank used to direct or prevent the passage of water. (p. 282)

distance decay *n.* a term referring to the concept that increasing distances between places tend to reduce interactions among them. (p. 389)

diversify *v.* to increase the variety of products in a country's economy; to promote manufacturing and other industries in order to achieve growth and stability. (p. 462)

Dome of the Rock *n.* a shrine in Jerusalem, located on the Temple Mount, which houses the spot where Muslims believe Muhammad rose into heaven and where Jews believe Abraham prepared to sacrifice his son Isaac to God. (p. 511)

Dominion of Canada *n.* the loose confederation of Ontario (Upper Canada), Quebec (Lower Canada), Nova Scotia, and New Brunswick, created by the British North America Act in 1867. (p. 156)

drainage basin *n.* an area drained by a major river and its tributaries. (p. 33)

drip irrigation *n.* the practice of using small pipes that slowly drip water just above ground to conserve water to use for crops. (p. 496)

drought *n.* a long period without rain or with very minimal rainfall. (p. 53)

dynasty *n.* a series of rulers from the same family. (p. 635)

E

earthquake *n.* a sometimes violent movement of the earth, produced when tectonic plates grind or slip past each other at a fault. (p. 39)

economic system *n.* the way people produce and exchange goods. (p. 91)

economic tiger *n.* a country with rapid economic growth due to cheap labor, high technology, and aggressive exports. (p. 645)

economy *n.* the production and exchange of goods and services among a group of people. (p. 91)

ecosystem *n.* an interdependent community of plants and animals. (p. 65)

El Niño (el NEEN•YOH) *n.* a weather pattern created by the warming of the waters off the west coast of South America, which pushes warm water and heavy rains toward the Americas and produces drought conditions in Australia and Asia. (p. 57)

entrepreneur *n.* a person who starts and builds a business. (p. 575)

epicenter *n.* the point on the earth's surface that corresponds to the location in the earth where an earthquake begins. (p. 39)

equator *n.* the imaginary line that encircles the globe, dividing the earth into northern and southern halves. (p. 6)

equinox *n.* each of the two days in a year on which day and night are equal in length; marks the beginning of spring and autumn. (p. 49)

erosion *n.* the result of weathering on matter, created by the action of wind, water, ice, or gravity. (p. 43)

escarpment *n.* a steep slope with a nearly flat plateau on top. (p. 417)

estuary *n.* a broadened seaward end of a river, where the river's currents meet the ocean's tides. (p. 563)

ethnic cleansing *n.* the policy of trying to eliminate an ethnic group. (p. 320)

ethnic group *n.* a group of people who share language, customs, and a common heritage. (p. 71)

Euphrates River *n.* a river of Southwest Asia, which supported several ancient civilizations and flows through parts of Turkey, Syria, and Iraq and empties into the Persian Gulf. (p. 489)

Eurasia *n.* the combined continent of Europe and Asia. (p. 346)

euro *n.* a common currency proposed by the European Union for its member nations. (p. 305)

European Environmental Agency *n.* an agency that provides the European Union with reliable information about the environment. (p. 324)

Everglades *n.* a large subtropical swampland in Florida of about 4,000 square miles. (p. 126)

export *n.* a product or good that is sold from one economy to another. (p. 140)

F

Fang sculpture *n.* carved boxes containing the skulls and bones of deceased ancestors, created by the Fang, who live in Gabon, southern Cameroon, and Equatorial Guinea. (p. 451)

fault *n.* a fracture in the earth's crust. (p. 39)

federal republic *n.* a nation whose powers are divided among the federal, or national, government and various state and local governments. (p. 139)

feudalism *n.* a political system prevailing in Europe from about the 9th to about the 15th centuries in which a king allowed nobles the use of his land in exchange for their military service and their protection of the land. (p. 297)

fertility rate *n.* the average number of children a woman of childbearing years would have in her lifetime, if she had children at the current rate for her country. (p. 78)

First Nations *n.* a group of Canada's Native American people. (p. 159)

fiord (fyawrd) *n.* a long, narrow, deep inlet of the sea between steep slopes. (p. 273)

folk art *n.* handmade items, such as pottery, woodcarving, and traditional costumes, produced by rural people with traditional lifestyles, instead of by professional artists. (p. 314)

fossil water *n.* water pumped from underground aquifers. (p. 496)

free enterprise *n.* an economic system in which private individuals own most of the resources, technology, and businesses, and can operate them for profit with little control from the government. (p. 140)

frontier *n.* the free, open land in the American West that was available for settlement. (p. 137)

G

Ganges River *n.* river in South Asia; an important water resource flowing more than 1,500 miles from its source in a Himalayan glacier to the Bay of Bengal. (p. 560)

Gaza Strip *n.* a territory along the Mediterranean Sea just northeast of the Sinai Peninsula; part of the land set aside for Palestinians, which was occupied by Israel in 1967. (p. 527)

Geographic Information System (GIS) *n.* technology that uses digital map information to create a databank; different "data layers" can be combined to produce specialized maps. GIS allows geographers to analyze different aspects of a specific place to solve problems. (p. 13)

geography *n.* the study of the distribution and interaction of physical and human features on the earth. (p. 5)

glaciation *n.* the changing of landforms by slowly moving glaciers. (p. 44)

glacier *n.* a large, long-lasting mass of ice that moves because of gravity. (p. 44)

global economy *n.* the merging of regional economies in which nations become dependent on each other for goods and services. (p. 666)

global network *n.* a worldwide interconnected group. (p. 173)

global warming *n.* the buildup of carbon dioxide in the atmosphere, preventing heat from escaping into space and causing rising temperatures and shifting weather patterns. (p. 246)

globe *n.* a three-dimensional representation of the earth. (p. 10)

Gobi Desert *n.* a desert located in northern China and south-east Mongolia, and a prime area for finding dinosaur fossils. (p. 627)

Golan Heights *n.* a hilly plateau overlooking the Jordan River and the Sea of Galilee; a strategic location that has been the site of conflict in Southwest Asia for decades. (p. 487)

Gorée Island *n.* an island off the coast of Senegal that served as a major departure point for slaves during the slave trade. (p. 442)

Great Barrier Reef *n.* a 1,250-mile chain of more than 2,500 reefs and islands along Australia's northeast coast, containing some 400 species of coral. (p. 692)

Great Game *n.* a struggle between the British Empire and the Russian Empire for control of Central Asia in the 19th century. (p. 376)

Great Kanto Earthquake *n.* an earthquake in 1923 in Japan that killed an estimated 140,000 people and left the city of Tokyo in ruins. (p. 662)

Great Lakes *n.* a group of five freshwater lakes of central North America between the United States and Canada; the lakes are Huron, Ontario, Michigan, Erie, and Superior. (p. 121)

Great Plains *n.* a vast grassland of central North America that is largely treeless and ascends to 4,000 feet above sea level. (p. 119)

Great Zimbabwe *n.* a city established in what is now Zimbabwe by the Shona around 1000; it became the capital of a thriving gold-trading area. (p. 453)

greenhouse effect *n.* the layer of gases released by the burning of coal and petroleum that traps solar energy, causing global temperature to increase. (p. 58)

Green Revolution *n.* an agricultural program launched by scientists in the 1960s to develop higher-yielding grain varieties and improve food production by incorporating new farming techniques. (p. 569)

Gross Domestic Product (GDP) *n.* the value of only goods and services produced within a country in a period of time. (p. 95)

Gross National Product (GNP) *n.* the total value of all goods and services produced by a country in a period of time. (p. 94)

ground water *n.* the water held under the earth's surface, often in and around the pores of rock. (p. 33)

guest worker *n.* a largely unskilled laborer, often an immigrant from South and East Asia, brought in to the oil-booming countries to fill job openings that the region's native peoples find culturally or economically unacceptable. (p. 525)

H

hemisphere *n.* each half of the globe. (p. 6)

high islands *n.* Pacific islands created by volcanoes. (p. 691)

Himalaya Mountains *n.* a mountain range in South Asia that includes Mount Everest, the world's tallest mountain peak. (p. 551)

Hinduism *n.* the dominant religion of India. (p. 560)

Holocaust *n.* the Nazi program of mass murder of European Jews during World War II. (p. 298)

Huang He (hwahng huh) *n.* a river in northern China, also called the Yellow River, that starts in the Kunlun Mountains and winds east for about 3,000 miles, emptying into the Yellow Sea. (p. 621)

human resources *n.* the skills and talents of employed people. (p. 531)

humus *n.* organic material in soil. (p. 45)

hurricane *n.* a storm that forms over warm, tropical ocean waters. (p. 51)

hydrologic cycle *n.* the continuous circulation of water among the atmosphere, the oceans, and the earth. (p. 32)

hydrosphere *n.* the waters comprising the earth's surface, including oceans, seas, rivers, lakes, and vapor in the atmosphere. (p. 28)

I

IJsselmeer (EYE•suhl•MAIR) *n.* a freshwater lake separated from the North Sea by a dike and bordered by polders. (p. 283)

illiteracy *n.* the inability to read or write. (p. 593)

Inca *n.* a member of the Quechen peoples of South America who built a civilization in the Andes Mountains in the 15th and 16th centuries. (p. 230)

Indochina *n.* a French colony comprised of Cambodia, Laos, and Vietnam; it won independence from France in 1954. (p. 707)

industrialization *n.* the growth of industry in a country or a society. (p. 730)

Indus Valley civilization *n.* the largest of the world's first civilizations in what is now Pakistan; this was a highly developed urban civilization, lasting from 2500 B.C. to about 1500 B.C. (p. 573)

infant mortality rate *n.* the number of deaths among infants under age one as measured per thousand live births. (p. 79)

infrastructure *n.* the basic support systems needed to keep an economy going, including power, communications, transportation, water, sanitation, and education systems. (pp. 94, 177, 212)

innovation *n.* taking existing elements of society and creating something new to meet a need. (p. 72)

Institutional Revolutionary Party (PRI) *n.* the political party introduced in 1929 in Mexico that helped to introduce democracy and maintain political stability for much of the 20th century. (p. 218)

Islam *n.* a monotheistic religion based on the teachings of the prophet Muhammad, and the biggest cultural and religious influence in North Africa. (pp. 439, 503)

J

Jakota Triangle *n.* a zone of prosperity during the 1980s and early 1990s—Japan, South Korea, and Taiwan. (p. 666)

Jordan River *n.* a river that serves as a natural boundary between Israel and Jordan, flowing from the mountains of Lebanon with no outlet to the Mediterranean Sea. (p. 489)

junta (HOON•tah) *n.* a government run by generals after a military takeover. (p. 249)

K

Kashmir *n.* a region of northern India and Pakistan over which several destructive wars have been fought. (p. 574)

Khmer Empire *n.* a powerful empire that lasted roughly from the 9th to the 15th centuries in what is now Cambodia. (p. 706)

King Leopold II *n.* the Belgian king who opened up the African interior to European trade along the Congo River and by 1884 controlled the area known as the Congo Free State. (p. 449)

KLA (Kosovo Liberation Army) *n.* a group that fought against Serbian attempts to control the region of Kosovo in the 1990s. (p. 321)

Kunlun Mountains *n.* mountains located in the west of China that are the source of two of China's great rivers, the Huang He (Yellow) and the Chang Jiang (Yangtze). (p. 619)

Kurds *n.* an ethnic group in Southwestern Asia that has occupied Kurdistan, located in Turkey, Iraq, and Iran, for about a thousand years, and who have been involved in clashes with these three countries over land claims for most of the 20th century. (p. 516)

L

landfill *n.* a method of solid waste disposal in which refuse is buried between layers of dirt in order to fill in or reclaim low-lying ground. (p. 631)

landform *n.* a naturally formed feature on the surface of the earth. (p. 33)

landlocked *adj.* having no outlet to the sea. (p. 84)

land reform *n.* the process of breaking up large landholdings to attain a more balanced land distribution among farmers. (pp. 250, 569)

Land Rights Act of 1976 *n.* a special law passed for Aboriginal rights in Australia giving Aboriginal people the right to claim land in the Northern Territory. (p. 728)

Landsat *n.* a series of satellites that orbit more than 100 miles above the earth. Each satellite picks up data in an area 115 miles wide. (p. 12)

latitude (lines) *n.* a set of imaginary lines that run parallel to the equator, and that are used in locating places north or south. The equator is labeled the zero-degree line for latitude. (p. 6)

lava *n.* magma that has reached the earth's surface. (p. 40)

lithosphere *n.* the solid rock portion of the earth's surface. (p. 28)

llanos (LAH•nohs) *n.* a large, grassy, treeless area in South America, used for grazing and farming. (p. 202)

lock *n.* a section of a waterway with closed gates where water levels are raised or lowered, through which ships pass. (p. 129)

loess (LOH•uhs) *n.* wind-blown silt and clay sediment that produces very fertile soil. (p. 44)

longitude (lines) *n.* a set of imaginary lines that go around the earth over the poles, dividing it east and west. The prime meridian is labeled the zero-degree line for longitude. (p. 6)

Louisiana Purchase *n.* the territory, including the region between the Mississippi River and the Rocky Mountains, that the United States purchased from France in 1803. (p. 136)

low islands *n.* Pacific islands made of coral reefs. (p. 691)

M

Mabo Case *n.* in Australia, the law case that upheld Aboriginal Eddie Mabo's land claim by which the Court recognized that Aboriginal people had owned land before the British arrived. (p. 728)

Mackenzie River *n.* Canada's longest river, which is part of a river system that flows across the Northwest Territories to the Arctic Ocean. (p. 121)

magma *n.* the molten rock material formed when solid rock in the earth's mantle or crust melts. (p. 28)

malaria *n.* an infectious disease of the red blood cells, carried by mosquitoes, that is characterized by chills, fever, and sweating. (p. 466)

mandala *n.* in Tibetan Buddhism, a geometric design that symbolizes the universe and aids in meditation. (p. 583)

mandala *n.* a state organized as a ring of power around a central court, which often changed in size over time, and which was used instead of borders in early Southeast Asian states. (p. 705)

mantle *n.* a rock layer about 1,800 miles thick that is between the earth's crust and the earth's core. (p. 28)

Maori *n.* the first settlers of New Zealand, who had migrated from Polynesia more than 1,000 years ago. (p. 719)

Mao Zedong *n.* the leader of the Communists in China who defeated the Nationalists in 1949; he died in 1976. (p. 636)

map projection *n.* a way of mapping the earth's surface that reduces distortion caused by converting three dimensions into two dimensions. (p. 10)

map *n.* a two-dimensional graphic representation of selected parts of the earth's surface. (p. 10)

maquiladora *n.* a factory in Mexico that assembles imported materials into finished goods for export. (p. 220)

market economy *n.* a type of economic system in which production of goods and services is determined by the demand from consumers. Also called a demand economy or capitalism. (pp. 91, 313)

Massif Central (ma•SEEF sahn•TRAHL) *n.* the uplands of France, which account for about one-sixth of French lands. (p. 275)

Mecca *n.* the holiest city of Islam, located in Saudi Arabia, where people make pilgrimages to fulfill Islamic religious duty. (p. 503)

mechanical weathering *n.* natural processes that break rock into smaller pieces. (p. 42)

megapolis *n.* a region in which several large cities and surrounding areas grow together. (p. 146)

Melanesia *n.* a region in Oceania meaning “black islands.” (p. 713)

Meseta (meh•SEH•tah) *n.* the central plateau of Spain. (p. 275)

Mesopotamia *n.* a region in Southwest Asia between the Tigris and the Euphrates rivers, which was the location of some of the earliest civilizations in the world; part of the cultural hearth known as the Fertile Crescent. (p. 516)

métis (may•TEES) *n.* a person of mixed French-Canadian and Native American ancestry. (p. 161)

metropolitan area *n.* a functional area including a city and its surrounding suburbs and exurbs, linked economically. (pp. 87, 148)

microcredit *n.* a small loan available to poor entrepreneurs, to help small businesses grow and raise living standards. (p. 575)

Micronesia *n.* one of three regions in Oceania, meaning “tiny islands.” (p. 713)

Midwest *n.* the region that contains the 12 states of the north-central United States. (p. 147)

migration *n.* the movement of peoples within a country or region. (p. 135)

Mississippi River *n.* a major river that runs north-south almost the length of the United States, from Minnesota to the Gulf of Mexico, and is part of the longest river system on the continent. (p. 121)

mistral (MIHS•truhl) *n.* a cold, dry wind from the north. (p. 279)

Mobutu Sese Seko *n.* the leader of Zaire, which is now the Democratic Republic of the Congo, from its independence in the 1960s until 1997. He brought the country's businesses under national control, profited from the reorganization, and used the army to hold power. (p. 450)

monarchy *n.* a type of government in which a ruling family headed by a king or queen holds political power and may or may not share the power with citizen bodies. (p. 83)

monsoon *n.* a seasonal wind, especially in South Asia. (p. 558)

moraine *n.* a ridge or hill of rock carried and finally deposited by a glacier. (p. 44)

mortality rate *n.* the number of deaths per thousand. (p. 79)

mosque *n.* an Islamic place of worship, where Muslims pray facing toward the holy city of Mecca. (p. 504)

Mount Kilimanjaro *n.* a volcano in Tanzania in Africa, also Africa's highest peak. (p. 417)

Mughal Empire *n.* the Muslim empire established by the early 1500s over much of India, which brought with it new customs that sometimes conflicted with those of native Hindus. (p. 568)

Muhammad *n.* the founder and a prophet of Islam, who lived part of his life in the city of Mecca. (p. 503)

multinational *n.* a corporation that engages in business worldwide. (p. 142)

Mutapa Empire *n.* a state founded in the 15th century by a man named Mutota and that extended throughout all of present-day Zimbabwe except the eastern part. (p. 453)

N

Nagorno-Karabakh *n.* the mountainous area of Azerbaijan, fought over by Armenia and Azerbaijan. (p. 386)

nation *n.* a group of people with a common culture living in a territory and having a strong sense of unity. (p. 83)

nationalism *n.* the belief that people should be loyal to their nation, the people with whom they share land, culture, and history. (p. 297)

nation-state *n.* the name of a territory when a nation and a state occupy the same territory. (p. 83)

natural resource *n.* a material on or in the earth, such as a tree, fish, or coal, that has economic value. (p. 93)

needleleaf *adj.* characteristic of trees like pine, fir, and cedar, found in northern regions of North America. (p. 66)

Nelson Mandela *n.* one of the leaders of the African National Congress who led a struggle to end apartheid and was elected president in 1994 in the first all-race election in South Africa. (p. 454)

New England *n.* the six northern states in the Northeast United States—Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, and Connecticut. (p. 145)

Niger delta *n.* delta of the Niger River and an area of Nigeria with rich oil deposits. (p. 424)

Nile River *n.* the world's longest river, flowing over 4,000 miles through the Sudan Basin into Uganda, Sudan, and Egypt. (p. 416)

nomad *n.* a person with no permanent home who moves according to the seasons from place to place in search of food, water, and grazing land. (pp. 127, 378)

nonviolent resistance *n.* a movement that uses all means of protest except violence. (p. 568)

Nordic countries *n.* countries of northern Europe, including Denmark, Finland, Iceland, Norway, and Sweden. (p. 302)

NAFTA (North American Free Trade Agreement) *n.* an important trade agreement creating a huge zone of cooperation on trade and economic issues in North America. (p. 220)

North Atlantic Drift *n.* a current of warm water from the Tropics. (p. 278)

Nunavut *n.* one of Canada's territories and home to many of Canada's Inuit; it was carved out of the eastern half of the Northwest Territories in 1999. (p. 169)

O

oasis *n.* a place where water from an aquifer has reached the surface; it supports vegetation and wildlife. (pp. 421, 492)

Oceania *n.* the group of islands in the Pacific, including Melanesia, Micronesia, and Polynesia. (p. 690)

Olduvai Gorge *n.* a site of fossil beds in northern Tanzania, containing the most continuous known record of humanity over the past 2 million years, including fossils from 65 hominids. (p. 431)

oligarchy (AHL•ih•GAHR•kee) *n.* a government run by a few persons or a small group. (p. 249)

“one-commodity” country *n.* a country that relies on one principal export for much of its earnings. (p. 462)

Ontario *n.* one of Canada’s Core Provinces. (p. 167)

OPEC *n.* the Organization of Petroleum Exporting Countries, a group established in 1960 by some oil-producing nations to coordinate policies on selling petroleum products. (p. 505)

Orinoco River *n.* a river mainly in Venezuela and part of South America’s northernmost river system. (p. 202)

outback *n.* the dry, unpopulated inland region of Australia. (p. 697)

outrigger canoe *n.* a small ship used in the lagoons of islands where Pacific Islanders settled. (p. 699)

ozone *n.* a chemical created when burning fossil fuels react with sunlight; a form of oxygen. (p. 325)

P

Pacific Rim *n.* an economic and social region including the countries surrounding the Pacific Ocean, extending clockwise from New Zealand in the western Pacific to Chile in the eastern Pacific and including the west coast of the United States. (p. 645)

pakehas *n.* a Maori term for white people, for the New Zealanders of European descent. (p. 722)

Palestine Liberation Organization (PLO) *n.* a group formed in the 1960s to regain the Arab land in Israel for Palestinian Arabs. (p. 513)

Palestinians *n.* a displaced group of Arabs who lived or still live in the area formerly called Palestine and now called Israel. (p. 527)

pampas (PAHM•puhs) *n.* a vast area of grassland and rich soil in south-central South America. (p. 202)

Panama Canal *n.* a ship canal cut through Panama connecting the Caribbean Sea with the Pacific Ocean. (p. 226)

pandemic *n.* a disease affecting a large population over a wide geographic area. (p. 435)

Paraná River *n.* a river in central South America and one of its three major river systems, originating in the highlands of southern Brazil, travelling about 3,000 miles south and west. (p. 203)

parliament *n.* a representative lawmaking body whose members are elected or appointed and in which legislative and executive functions are combined. (pp. 158, 303)

parliamentary government *n.* a system where legislative and executive functions are combined in a legislature called a parliament. (p. 158)

particulate *n.* a very small particle of liquid or solid matter. (p. 324)

partition *n.* separation; division into two or more territorial units having separate political status. (p. 574)

pastoral lease *n.* in Australia, a huge chunk of land still owned by the government; ranchers take out leases, renting the land from the government. (p. 729)

PCB *n.* an industrial compound that accumulates in animal tissue and can cause harmful effects and birth defects; PCBs were banned in the United States in 1977. (p. 631)

peat *n.* partially decayed plant matter found in bogs. (p. 277)

penal colony *n.* a place to send prisoners. (p. 718)

per capita income *n.* the average amount of money earned by each person in a political unit. (p. 94)

permafrost *n.* permanently frozen ground. (pp. 63, 123)

polder *n.* land that is reclaimed from the sea or other body of water by diking and drainage. (p. 282)

Polynesia *n.* one of three regions in Oceania, meaning “many islands.” (p. 713)

population density *n.* the average number of people who live in a measurable area, reached by dividing the number of inhabitants in an area by the amount of land they occupy. (p. 81)

population pyramid *n.* a graphic device that shows gender and age distribution of a population. (p. 79)

postindustrial economy *n.* an economic phase in which manufacturing no longer plays a dominant role. (p. 142)

Prairie Provinces *n.* in Canada, the provinces west of Ontario and Quebec—Manitoba, Saskatchewan, and Alberta. (p. 168)

precipitation *n.* falling water droplets in the form of rain, sleet, snow, or hail. (p. 50)

prevailing westerlies *n.* winds that blow from west to east. (p. 124)

prime meridian *n.* the imaginary line at zero meridian used to measure longitude east to west, and dividing the earth’s east and west halves; also called the Greenwich Meridian because it passes through Greenwich, England. (p. 6)

prime minister *n.* the head of a government; the majority party’s leader in parliament. (p. 158)

privatization *n.* the selling of government-owned business to private citizens. (p. 388)

province *n.* a political unit. (p. 156)

pull factor *n.* a factor that draws or attracts people to another location. (pp. 81, 211)

push factor *n.* a factor that causes people to leave their homelands and migrate to another region. (pp. 81, 211, 730)

Pyongyang *n.* the largest city in North Korea, with more than 2.5 million people. (p. 650)

Q

Qin Ling Mountains *n.* mountains in southeastern and east-central China; they divide the northern part of China from the southern part. (p. 619)

Quebec *n.* one of Canada’s Core Provinces. (p. 167)

Quechua (KEHCH•wuh) *n.* the language of the Inca Empire, now spoken in the Andes highlands. (p. 231)

R

rai *n.* a kind of popular Algerian music developed in the 1920s by poor urban children that is fast-paced with danceable rhythms; was sometimes used as a form of rebellion to expose political unhappiness. (p. 440)

rain forest *n.* a forest region located in the Tropical Zone with a heavy concentration of different species of broadleaf trees. (pp. 66, 207)

rain shadow *n.* the land on the leeward side of hills or mountains that gets little rain from the descending dry air. (p. 51)

raj *n.* the period of British rule in India, which lasted for nearly 200 years, from 1857 to 1947. (p. 568)

Ramadan *n.* an Islamic practice of month-long fasting from sunup to sundown. (p. 576)

rate of natural increase *n.* also called population growth rate—the rate at which population is growing, found by subtracting the mortality rate from the birthrate. (p. 79)

- recession** *n.* an extended period of decline in general business activity. (p. 667)
- Red Army** *n.* the name of the Soviet Union's military. (p. 371)
- refinery** *n.* a place where crude oil is converted into useful products. (p. 497)
- Reformation** *n.* a movement in Western Europe beginning in 1517, when many Christians broke away from the Catholic Church and started Protestant churches; this led to mutual hostility and religious wars that tore apart Europe. (p. 297)
- reggae** *n.* a style of music that developed in Jamaica in the 1960s and is rooted in African, Caribbean, and American music, often dealing with social problems and religion. (p. 227)
- relative location** *n.* describes a place in relation to other places around it. (p. 6)
- relief** *n.* the difference in elevation of a landform from the lowest point to the highest point. (p. 36)
- religion** *n.* the belief in a supernatural power or powers that are regarded as the creators and maintainers of the universe, as well as the system of beliefs itself. (p. 75)
- Renaissance** *n.* a time of renewed interest in learning and the arts that lasted from the 14th through 16th centuries; it began in the Italian city-states and spread north to all of Europe. (p. 291)
- representative democracy** *n.* a government in which the people rule through elected representatives. (p. 139)
- republic** *n.* a government in which citizens elect representatives to rule on their behalf. (p. 290)
- reserve** *n.* public land set aside for native peoples by the government. (p. 162)
- Richter scale** *n.* a way to measure information collected by seismographs to determine the relative strength of an earthquake. (p. 40)
- rift valley** *n.* a long, thin valley created by the moving apart of the continental plates, present in East Africa, stretching over 4,000 miles from Jordan in Southwest Asia to Mozambique in Southern Africa. (p. 416)
- Ring of Fire** *n.* the chain of volcanoes that lines the Pacific Rim. (pp. 41, 661)
- Rocky Mountains** *n.* a major mountain system of the United States and Canada, extending 3,000 miles from Alaska south to New Mexico. (p. 119)
- Rub al Khali** *n.* also known as the Empty Quarter; one of the largest sandy deserts in the world, covering about 250,000 square miles; located on the Arabian Peninsula. (p. 491)
- Russian Revolution** *n.* the revolt of 1917, in which the Russian Communist Party, led by V. I. Lenin, took control of the government from the czars. (p. 363)
- runoff** *n.* rainfall not absorbed by soil, which can carry pesticides and fertilizers from fields into rivers, endangering the food chain. (p. 353)

S

- Sahara** *n.* the largest desert in the world, stretching 3,000 miles across the African continent, from the Atlantic Ocean to the Red Sea, and measuring 1,200 miles from north to south. (p. 420)
- Sahel** *n.* a narrow band of dry grassland, running east to west on the southern edge of the Sahara, that is used for farming and herding. (p. 424)
- St. Lawrence Seaway** *n.* North America's most important deepwater ship route, connecting the Great Lakes to the Atlantic Ocean by way of the St. Lawrence River. (p. 129)
- St. Petersburg** *n.* the old capital of Russia, established by Peter the Great, who moved it there from Moscow because St. Petersburg provided direct access by sea to Western Europe. (p. 362)
- salt flat** *n.* flat land made of chemical salts that remain after winds evaporate the moisture in the soil. (p. 492)
- samba** *n.* a Brazilian dance with African influences. (p. 239)
- samurai** *n.* a professional soldier in Japan who served the interests of landowners and clan chiefs. (p. 651)
- satellite nation** *n.* a nation dominated by another country. (p. 312)
- savanna** *n.* the term for the flat, grassy, mostly treeless plains in the tropical grassland region. (p. 66)
- seawork** *n.* a structure used to control the sea's destructive impact on human life. (p. 283)
- sectionalism** *n.* when people place their loyalty to their region, or section, above loyalty to the nation. (p. 136)
- sediment** *n.* small pieces of rock produced by weathering processes. (p. 42)
- seismograph** (SYZ•muh•GRAF) *n.* a device that measures the size of the waves created by an earthquake. (p. 39)
- Seoul** *n.* the largest city in South Korea, with a population of more than ten million people. (p. 650)
- Serengeti** *n.* an area of East Africa, containing some of the best grasslands in the world and many grazing animals. (p. 422)
- service industry** *n.* any kind of economic activity that produces a service rather than a product. (p. 142)
- Sherpa** *n.* a person of Tibetan ancestry in Nepal, who serves as the traditional mountain guide of the Mount Everest region. (p. 582)
- Shi'ite** *n.* one of the two main branches of Islam including most Iranians and some populations of Iraq and Afghanistan. (p. 517)
- shogun** *n.* the general of the emperor's army with the powers of a military dictator, a position created by the Japanese emperor in 1192 after a struggle between two powerful clans. (p. 651)
- Siberia** *n.* a region of central and eastern Russia, stretching from the Ural Mountains to the Pacific Ocean, known for its mineral resources and for being a place of political exile. (p. 349)
- Siddhartha Gautama** *n.* the founder of Buddhism and known as the Buddha, born in southern Nepal in the sixth century B.C. (p. 582)
- Silicon Glen** *n.* the section of Scotland between Glasgow and Edinburgh, named for its high concentration of high-tech companies. (p. 305)
- Silk Road** *n.* the 4,000-mile route between China and the Mediterranean Sea, named for the costly silk acquired in China. (p. 375)
- silt** *n.* loose sedimentary material containing very small rock particles, formed by river deposits and very fertile. (p. 426)
- Sinhalese** *n.* an Indo-Aryan people who crossed the strait separating India and Sri Lanka in the sixth century B.C. and who created an advanced civilization there, adopting Buddhism. (p. 584)

sirocco (suh•RAHK•oh) *n.* a hot, steady south wind that blows from North Africa across the Mediterranean Sea into southern Europe, mostly in spring. (p. 279)

slash-and-burn *adj.* a way of clearing fields for planting by cutting trees, brush, and grasses and burning them. (p. 210)

smart growth *n.* the efficient use and conservation of land and other resources. (p. 178)

smog *n.* a brown haze that occurs when gases released by burning fossil fuels react with sunlight. (p. 324)

society *n.* a group that shares a geographic region, a common language, and a sense of identity and culture. (p. 71)

soil *n.* the loose mixture of weathered rock, organic matter, air, and water that supports plant growth. (p. 45)

solar system *n.* consists of the sun and nine known planets, as well as other celestial bodies that orbit the sun. (p. 27)

solstice *n.* either of two times of year when the sun's rays shine directly overhead at noon at the furthest points north or south, and that mark the beginning of summer and winter; in the Northern Hemisphere, the summer solstice is the longest day and the winter solstice the shortest. (p. 49)

South, the *n.* a region that covers about one-fourth of the land area of the United States and contains more than one-third of its population. (p. 148)

South Slav *n.* a person who migrated from Poland or Russia and settled in the Balkan Peninsula around 500. (p. 319)

Spanish conquest *n.* the conquering of the Native Americans by the Spanish. (p. 217)

sphere of influence *n.* a method of dividing foreign control in China, after the country was forced to sign a series of treaties granting special privileges to the Europeans. China was partitioned for control by Britain, France, Germany, and Russia, among others. (p. 636)

state *n.* a political term describing an independent unit that occupies a specific territory and has full control of its internal and external affairs. (p. 83)

stateless nation *n.* a nation of people that does not have a territory to legally occupy, like the Palestinians, Kurds, and Basques. (p. 526)

stateless society *n.* one in which people use lineages, or families whose members are descended from a common ancestor, to govern themselves. (p. 443)

steppe *n.* the term used for the temperate grassland region in the Northern Hemisphere. (p. 66)

Stolen Generation *n.* in Australia, what Aboriginal people today call the 100,000 mixed-raced children who were taken by the government and given to white families to promote assimilation. (p. 728)

storm surge *n.* high water level brought by a cyclone that swamps low-lying areas. (p. 562)

strategic commodity *n.* a resource so important that nations will go to war to ensure its steady supply. (p. 529)

subcontinent *n.* a landmass that is like a continent, only smaller, such as South Asia, which is called the Indian subcontinent. (p. 551)

subsistence activity *n.* an activity in which a family produces only the food, clothing, and shelter they themselves need. (p. 714)

suburb *n.* a political unit or community touching the borders of the central city or touching other suburbs that touch the city. (pp. 87, 138)

sultan *n.* a ruler of a Muslim country. (p. 585)

summer monsoon *n.* the season when winds blow from the southwest across the Indian Ocean toward South Asia, from June through September, with winds stirring up powerful storms and causing severe flooding. (p. 597)

Sunni *n.* one of the two main branches of Islam, comprising about 83 percent of all Muslims, including those in Turkey, Iraq, and Afghanistan. (p. 517)

supra *n.* Georgian (Russian) term for dinner party, with many dishes and courses, toasts, and short speeches. (p. 374)

sustainable community *n.* a community where residents can live and work in harmony with the environment. (p. 178)

sweatshop *n.* a workplace where people work long hours for low pay under poor conditions to enrich manufacturers. (p. 667)

T

taiga *n.* a nearly continuous belt of evergreen coniferous forests across the Northern Hemisphere, in North America and Eurasia. (p. 351)

Taklimakan Desert *n.* a desert located in western China between the Tian Shan and Kunlun mountains. (p. 627)

Taliban *n.* a strict Muslim group in Afghanistan that has imposed rigid rules on society, including prescribed clothing styles for both men and women, restrictions on the appearance of women in public places, and regulations on television, music, and videos. (p. 519)

Tamil *n.* a Dravidian Hindu, who arrived in Sri Lanka in the fourth century, settling in the north while the Sinhalese moved further south. (p. 584)

Taoism *n.* a philosophy based on the book *Tao Te Ching* and the teachings of Lao-Tzu, who lived in China in the sixth century B.C. and believed in preserving and restoring harmony in the individual, with nature, and in the universe, with little interference from the government. (p. 638)

taro *n.* a tropical Asian plant with a starchy root, which can be eaten as a boiled vegetable or made into breads, puddings, or a paste called poi. (p. 715)

tectonic plate *n.* an enormous moving shelf that forms the earth's crust. (p. 37)

Tenochtitlan (teh•NOH•tee•TLAHN) *n.* the ancient Aztec capital, site of Mexico City today. (p. 217)

terpen *n.* high earthen platforms used in seaworks. (p. 283)

terraced farming *n.* an ancient technique for growing crops on hillsides or mountain slopes, using step-like horizontal fields cut into the slopes. (p. 211)

terrorism *n.* the use of, or threatened use of, force or violence against individuals or property for the purpose of intimidating or causing fear for political or social ends. (p. 173)

theocratic *adj.* a form of government in which religious leaders control the government, relying on religious law and consultation with religious scholars. (p. 504)

Three Gorges Dam *n.* a dam begun in the late 20th century on the Chang Jiang in China, to help control flooding, generate power, and allow ships to sail farther into China. (p. 628)

Three Kingdoms *n.* the kingdoms formed in the peninsula of Korea by A.D. 300—Koguryo in the northeast, Paekche in the southwest, and Silla in the southeast. (p. 647)

Tigris River *n.* one of the most important rivers of Southwest Asia; it supported several ancient river valley civilizations, and flows through parts of Turkey, Syria, and Iraq. (p. 489)

tornado *n.* a powerful funnel-shaped column of spiraling air. (p. 51)

topographic map *n.* a general reference map; a representation of natural and man-made features on the earth. (p. 11)

topography *n.* the combined characteristics of landforms and their distribution in a region. (p. 36)

Transcaucasia *n.* a region that consists of the republics of Armenia, Azerbaijan, and Georgia; located between the Caucasus Mountains and the borders of Turkey and Iran. (p. 346)

Trans-Siberian Railroad *n.* a railroad that would eventually link Moscow to the Pacific port of Vladivostok; built between 1891 and 1903. (p. 355)

Treaty of Tordesillas *n.* a treaty between Spain and Portugal in 1494 that gave Portugal control over the land that is present-day Brazil. (p. 236)

Treaty of Waitangi *n.* the treaty signed by the British and Maori in 1840 giving Britain control over New Zealand. (p. 719)

tsunami (TSU•NAH•mee) *n.* a giant ocean wave, caused by an underwater earthquake or volcanic eruption, with great destructive power. (pp. 40, 662)

tuberculosis *n.* a respiratory infection spread by human contact, which often accompanies AIDS. (p. 466)

tundra *n.* the flat treeless lands forming a ring around the Arctic Ocean; the climate region of the Arctic Ocean. (p. 63)

typhoon *n.* a tropical storm, like a hurricane, that occurs in the western Pacific. (pp. 51, 625)

U

USSR *n.* the Union of Soviet Socialist Republics, or Soviet Union, formed in 1922 by the Communists and officially dissolved in 1991. (p. 363)

UNICEF (United Nations Children's Fund) *n.* an international watchdog and relief organization for children. (p. 665)

United Provinces of Central America *n.* the name of Central America after the region declared independence from Mexico in 1823. (p. 223)

upland *n.* a hill or very low mountain that may also contain mesas and high plateaus. (p. 275)

Ural Mountains *n.* the mountain ranges that separate the Northern European and West Siberian plains and used as the dividing line between Europe and Asia. (p. 346)

urban geography *n.* the study of how people use space in cities. (p. 87)

urbanization *n.* the dramatic rise in the number of cities and the changes in lifestyle that result. (p. 88)

urban sprawl *n.* poorly planned development that spreads a city's population over a wider and wider geographic area. (p. 176)

V

Vietnam War *n.* (1954–1975) the military conflict resulting from American involvement in South Vietnam to prevent its takeover by Communist North Vietnam. (p. 707)

volcano *n.* a natural event, formed when magma, gases, and water from the lower part of the crust or mantle collect in underground chambers and eventually erupt and pour out of cracks in the earth's surface. (p. 40)

voyaging canoe *n.* a large ship developed by Pacific Islanders to sail the ocean. (p. 699)

W

wadi *n.* a riverbed that remains dry except during the rainy seasons. (p. 488)

water table *n.* the level at which rock is saturated. (p. 33)

weather *n.* the condition of the atmosphere at a particular location and time. (p. 50)

weathering *n.* physical and chemical processes that change the characteristics of rock on or near the earth's surface, occurring slowly over many years. (p. 42)

West *n.* North American region, consisting of 13 states, that stretches from the Great Plains to the Pacific Ocean and includes Alaska to the north and Hawaii in the Pacific. (p. 148)

West Bank *n.* in Israel, a strip of land on the west side of the Jordan River, originally controlled by Jordan, which is part of the land set aside for Arab Palestinians. (p. 527)

Western Wall *n.* for Jews, the holiest site in Jerusalem; the only remaining portion of the Second Temple, built in 538 B.C. and destroyed in A.D. 70 by the Romans. (p. 510)

Wik Case *n.* in Australia, the court ruled in this case that Aboriginal people could claim land held under a pastoral lease. (p. 729)

winter monsoon *n.* the season when dry winds blow from the northeast across the Himalaya Mountains toward the sea from October through February, sometimes causing drought. (p. 597)

X

Xi Jiang (shee JYAHNG) *n.* also called the West River; the river that flows eastward through southeast China and joins the Pearl River (Zhu Jiang) to flow into the South China Sea, forming an estuary between Hong Kong and Macao. (p. 621)

Y

yurt *n.* a tent of Central Asia's nomads. (p. 379)

Z

Zionism *n.* a movement that began in the 19th century to create and support a Jewish homeland in Palestine. (p. 511)

Zuider Zee (ZEYE•duhr ZAY) *n.* former inlet of the North Sea in the Netherlands. (p. 283)

A

- Aboriginal people** [Aborígenes] s. gente que emigró a Australia desde Asia, hace al menos 40.000 años; los pobladores originales de la tierra. (p. 718)
- absolute location** [ubicación absoluta] s. el lugar exacto en la Tierra donde se encuentra un accidente geográfico. (p. 6)
- acculturation** [aculturación] s. el cambio cultural que ocurre cuando las personas en una sociedad aceptan o adoptan una innovación. (p. 72)
- acquired immune deficiency syndrome (AIDS)** [síndrome de inmunodeficiencia adquirida (SIDA)] s. enfermedad producida por el virus de la inmunodeficiencia humana o VIH. (p. 465)
- Aksum** [Aksum] s. una importante capital comercial desde el s. I al s. VIII de nuestra era, situada en lo que hoy es Etiopía; floreció debido a su ubicación junto al Mar Rojo y el Océano Índico. (p. 431)
- alluvial plain** [llanura aluvial] s. tierra fértil para la labranza, formada por depósitos de arcilla, limo, arena o grava producidos por las aguas corrientes. (p. 553)
- Amazon River** [Río Amazonas] s. el segundo río más largo del mundo y uno de los tres principales sistemas fluviales de América del Sur. Se extiende unas 4.000 millas (6.436 km) de oeste a este y desemboca en el Océano Atlántico. (p. 203)
- Andes Mountains** [Cordillera de los Andes] s. una larga cordillera que se extiende a lo largo de la costa del Pacífico de Centroamérica y América del Sur. (p. 201)
- anti-Semitism** [antisemitismo] s. discriminación contra los judíos. (p. 315)
- apartheid** [apartheid] (a-par-zeid) s. política de separación completa de las razas, implementada por el gobierno de la minoría blanca de Sudáfrica en 1948. (p. 454)
- Appalachian Mountains** [Montes Apalaches] s. una de las dos cordilleras más importantes en la región Este de los Estados Unidos y Canadá, que se extiende 1.600 millas (2.575 km) desde Terranova (Newfoundland) hacia el sur hasta Alabama. (p. 119)
- aqueduct** [acueducto] s. estructura para transportar agua por largas distancias. (p. 292)
- aquifer** [acuifero] s. capa subterránea de roca donde se almacena agua. (p. 421)
- archipelago** [archipiélago] s. grupo de islas cercanas. (pp. 553, 689)
- ASEAN** [ANSA] s. Asociación de Naciones del Sudeste Asiático, una alianza que promueve el desarrollo económico y la paz en la región. (p. 707)
- Ashanti** [Ashanti] s. gente que vive en lo que es ahora Ghana, en África Occidental, renombrada por sus diseños artísticos de ropa asasia o kente que usa la realeza. (p. 444)
- assimilation** [asimilación] s. proceso por el cual un grupo minoritario gradualmente se desprende de su propia cultura y adopta la cultura del grupo mayoritario. (p. 728)
- Aswan High Dam** [La gran presa de Asuán] s. presa en el río Nilo de Egipto, construida en 1970, la cual aumentó las tierras arables de Egipto en un 50 por ciento y las protegió contra las sequías y las inundaciones. (p. 426)
- Atlantic Provinces** [Las provincias atlánticas] s. las provincias en la región este del Canadá: Isla Príncipe Eduardo, Nueva Brunswick, Nueva Escocia y Terranova o Newfoundland. (p. 166)
- atmosphere** [atmósfera] s. las capas gaseosas que envuelven inmediatamente la Tierra. (p. 28)
- atoll** [atolón] s. isla coralina en forma anular o un conjunto de pequeñas islas que rodean una laguna central. (pp. 553, 700)

B

- balkanization** [balcanización] s. proceso por el cual una región se fragmenta en unidades pequeñas, mutuamente hostiles. (p. 311)
- Baltic Republics** [Países Bálticos] s. los países de Latvia, Lituania y Estonia, ubicados en la costa este del mar Báltico. (p. 361)
- Bantu migration** [migración bantú] s. desplazamiento de los pueblos bantú hacia el sur a través de África, que propagaron su lengua y su cultura desde alrededor del año 500 antes de nuestra era hasta alrededor del año 1000 de nuestra era. (p. 448)
- basic necessity** [necesidades básicas] s. alimentos, ropa y vivienda. (p. 593)
- Benelux** [Benelux] s. la unión económica de Bélgica, Países Bajos (Nederland) y Luxemburgo. (p. 296)
- Beringia** [Behring] s. puente de tierra que se cree conectaba lo que son ahora Siberia y Alaska. (p. 127)
- Berlin Conference** [Conferencia de Berlín] s. una conferencia de 14 países europeos realizada en 1884-1885 en Berlín, Alemania, para establecer normas de control político de África. (p. 432)
- Berlin Wall** [Muro de Berlín] s. muro construido por Alemania Oriental en 1961 para dividir la capital de Berlín en dos, derruido en 1989. (p. 298)
- Bikini Atoll** [Atolón Bikini] s. arrecife aislado en las Islas Marshall del Pacífico central, donde se efectuaron experimentos de bombas nucleares estadounidenses, lo que contaminó el atolón con altos niveles de radiación, y ahuyentó a sus habitantes. (p. 700)
- biodiversity** [biodiversidad] s. la variedad de organismos en un ecosistema. (p. 245)
- biological weapon** (arma biológica) s. bacteria o virus que se puede utilizar para dañar o matar personas, animales o plantas. (p. 175)
- biome** [bioma] s. un ecosistema regional. (p. 65)
- biosphere** [biósfera] s. todas las partes de la Tierra donde viven plantas y animales, incluyendo la atmósfera, la litosfera y la hidrosfera. (p. 28)
- birthrate** [índice de natalidad] s. el número de nacimientos vivos por total de la población, con frecuencia expresado por miles de habitantes. (p. 78)
- blizzard** [ventisca] s. tormenta de nieve fuerte con vientos de más de 35 millas (55 km) por hora y visibilidad reducida de menos de un cuarto de milla (0.40 km). (p. 52)
- Boxer Rebellion** [Guerra de los bóxers] s. rebelión en China en 1900, producida por militantes chinos enfurecidos, o bóxers, por el control extranjero; cientos de europeos, cristianos y chinos murieron. (p. 636)
- British Columbia** [Columbia Británica] s. la provincia más occidental de Canadá en las Montañas Rocosas. (p. 169)
- Buddhism** [Budismo] s. religión originada en la India por el año 500 antes de nuestra era, que se extendió hacia China, donde se convirtió en una religión importante alrededor del año 400 de nuestra era. (p. 638)

C

- calypso** [calypso] s. estilo de música que comenzó en Trinidad y combina elementos musicales de África, España y el Caribe. (p. 227)
- Canadian Shield** [escudo canadiense] s. parte norteña de las tierras bajas interiores que es una región rocosa y plana que cubre casi dos millones de millas cuadradas (cinco millones doscientos mil kilómetros cuadrados) y encierra la Bahía de Hudson. (p. 119)
- canopy** [bóveda] s. área que comprende la parte superior de los árboles en una selva tropical, a unos 150 pies (45 metros) sobre el suelo. (p. 422)
- capoeira** [capoeira] s. arte marcial y danza que desarrollaron en Brasil los angolanos que fueron llevados allí desde el África por los portugueses. (p. 239)
- Carnival** [Carnaval] s. el día de fiesta más llamativo de Brasil. (p. 239)

carrying capacity [capacidad de soporte] s. número de organismos que un pedazo de terreno puede soportar sin efectos negativos. (p. 82)

Carthage [Cartago] s. uno de los grandes imperios de África en la antigüedad, situado en una península triangular en el Golfo de Túnez en la costa del Mar Mediterráneo. (p. 438)

cartographer [cartógrafo] s. persona que levanta mapas. (p. 10)

cash crop [cultivo industrial o comercial] s. producto cultivado para la venta directa y no para uso en una región, como café, té y azúcar en África. (p. 433)

caste system [sistema de castas] s. el sistema ario de clases sociales en la India y uno de los pilares del hinduismo en el cual cada persona nace dentro de una casta y sólo puede pasar a otra casta mediante la reencarnación. (p. 571)

Caucasus [Cáucaso] s. región que comprende el sistema montañoso del mismo nombre y se extiende entre el mar Negro y el Caspio. (p. 385)

caudillo [caudillo] s. dictador militar o líder político. (p. 249)

Central Asia [Asia Central] s. región que incluye las repúblicas de Kazajstán, Kirguistán, Tayikistán, Turkmenistán y Uzbekistán. (p. 346)

central business district (CBD) [distrito comercial central (DCC)] s. el centro de una ciudad, en el cual casi siempre se desarrollan actividades comerciales. (p. 89)

cerrado [cerrado] s. una sabana que tiene terreno plano y lluvias moderadas, lo que la hace apta para la agricultura. (p. 202)

Chang Jiang [Chang Jiang] s. (o Río Yang-tsé) el río más largo del Asia, que fluye unas 3.900 millas (6.275 km) desde Xizang (Tíbet) hasta el mar de la China oriental. (p. 621)

Chaparral [chaparral] s. término, en algunos lugares, para una bioma de árboles resistentes a la sequía. (p. 66)

Chechnya [Chechenia] s. una de las repúblicas que continúa siendo parte de Rusia después del colapso de la Unión Soviética a pesar de los movimientos independentistas y levantamientos violentos. (p. 386)

chemical weathering [meteorización química] s. proceso por el cual una roca se convierte en una nueva sustancia a través de la interacción entre los elementos en el aire o el agua y los minerales en la roca. (p. 43)

chernozem [quimiozen] s. capa superior negra del suelo, una de las tierras más fértiles del mundo. (p. 345)

cholera [cólera] s. enfermedad infecciosa tratable que puede ser mortal y es producida por la falta de medidas higiénicas adecuadas y de suministro de agua limpia. (p. 465)

city [ciudad] s. zona que es el centro de los negocios y la cultura y tiene una población numerosa. (p. 87)

city-state [ciudad-estado] s. una unidad política autónoma compuesta por una ciudad y los terrenos circundantes. (p. 289)

climate [clima] s. las condiciones atmosféricas típicas de un lugar específico que se observan con el tiempo. (p. 50)

coalition [coalición] s. alianza. (p. 174)

Cold War [Guerra Fría] s. el conflicto entre los Estados Unidos y la Unión Soviética después de la II Guerra Mundial, llamada "fría" porque nunca se intensificó hasta el grado de convertirse en una guerra abierta. (p. 363)

collective farm [granja colectiva] s. un gran equipo de peones reunidos para trabajar juntos en enormes granjas en la Unión Soviética, durante el gobierno de Jósiv Stalin. (p. 364)

Columbian Exchange [Intercambio Colombino] s. el intercambio de plantas, animales y enfermedades entre el hemisferio oriental y el hemisferio occidental durante la era de las exploraciones. (p. 136)

command economy [economía dirigida] s. tipo de sistema económico en el cual la producción de bienes y servicios es determinada por un gobierno central, el cual usualmente es dueño de los medios de producción. Llamado también "economía planificada". (pp. 91, 364)

commodity [bien de consumo] s. un producto agrícola o de minería que se puede vender. (p. 462)

communism [comunismo] s. sistema en el cual el gobierno retiene casi todo el poder político y los medios de producción. (p. 83)

confederation [confederación] s. una unión política. (p. 156)

Confucianism [Confucianismo] s. movimiento basado en las enseñanzas de Confucio, filósofo chino que vivió alrededor del año 500 antes de nuestra era; Confucio enfatizaba la importancia de la educación en una sociedad ordenada en la cual las personas respetan a sus mayores y obedecen al gobierno. (p. 638)

coniferous [conífero] adj. otro término para los árboles de hojas perennes y aciculares. (p. 66)

constitutional monarchy [monarquía constitucional] s. sistema de gobierno en el cual los poderes del gobernante están limitados por una constitución y las leyes de la nación. (p. 580)

continent [continente] s. una masa de tierra firme sobre el agua en la Tierra. (p. 27)

Continental Divide [La Divisoria Continental] s. la línea de los picos más altos en América del Norte que marca la separación entre los ríos que fluyen hacia el este y hacia el oeste. (p. 120)

continental drift [deriva de los continentes] s. la hipótesis de que los continentes fueron una vez un supercontinente que se dividió lentamente a través de millones de años. (p. 29)

continentality [continentalidad] s. la distancia de una región de la influencia moderadora del mar. (p. 350)

continental shelf [plataforma continental] s. la superficie de la Tierra desde el borde de un continente hasta la parte profunda del océano. (p. 36)

convection [convección] s. la transferencia de calor en la atmósfera por el movimiento ascendente del aire. (p. 54)

copra [copra] s. la pulpa seca del coco. (p. 714)

core [centro] s. el núcleo de la Tierra, compuesto de hierro y níquel; el centro interior es sólido, el centro exterior es líquido. (p. 28)

crude oil [petróleo crudo] s. petróleo que no ha sido procesado. (p. 497)

Crusades [Cruzadas] s. una serie de guerras impulsadas por los cristianos europeos en 1096 para recuperar la Tierra Santa (Palestina) de los musulmanes. (p. 291)

crust [corteza] s. la capa delgada de rocas que compone la superficie de la Tierra. (p. 28)

cultural crossroad [cruce cultural] s. un lugar donde convergen varias culturas. (p. 310)

cultural hearth [centro cultural] s. el centro o lugar de origen de una cultura importante; un lugar de innovaciones desde el cual se difunden ideas, materiales y tecnologías fundamentales a otras culturas. (pp. 72, 222)

culture [cultura] s. el total de conocimientos, actitudes y comportamientos compartidos y transmitidos por los miembros de un grupo. (p. 71)

cyclone [ciclón] s. una tormenta violenta con vientos fuertes y mucha lluvia; el patrón climatológico más extremo del Asia Meridional. (p. 558)

czar [zar] s. el emperador de Rusia antes de la Revolución de 1917 y de la subsiguiente creación de la Unión Soviética en 1922. (p. 362)

D

Dead Sea [Mar Muerto] s. lago salado, sin salida al mar, entre Israel y Jordania, con un nivel de salinidad tan alto que casi nada puede vivir en sus aguas; se encuentra a 1.349 pies (411 m) por debajo del nivel del mar, lo que lo convierte en el lugar más bajo en la corteza expuesta de la Tierra. (p. 489)

debt-for-nature swap [Intercambio de deuda por naturaleza] s. acuerdo para reducir una deuda por el cual una organización acepta pagar cierta cantidad de una deuda gubernamental a cambio de protección gubernamental de cierta parte de una selva tropical. (p. 247)

deciduous [caducifolio] adj. característica de los árboles de hojas anchas, como el arce, el roble, el abedul y el Alamo de Virginia. (p. 66)

deforestation [deforestación] s. el corte y la eliminación de árboles y bosques. (p. 246)

delta [delta] s. zona de forma de abanico formada por sedimentos depositados dejados por un río que disminuye su velocidad al desembocar en el océano. (p. 43)

democracy [democracia] s. tipo de gobierno en el cual los ciudadanos ejercen el poder político sea directamente o mediante representantes elegidos. (p. 83)

desalinization [desalinización] s. la eliminación de sal del agua del océano. (p. 496)

desertification [desertización] s. ampliación de condiciones secas a zonas húmedas que se encuentran próximas a desiertos. (p. 424)

dialect [dialecto] s. una versión de un idioma que refleja cambios en patrones de habla por factores relacionados con cambios de clase, regionales o culturales. (p. 73)

dictatorship [dictadura] s. tipo de gobierno en el cual un individuo o grupo de individuos tienen el poder político completo. (p. 83)

diffusion [difusión] s. la diseminación de ideas, invenciones o patrones de comportamiento hacia otras sociedades. (p. 72)

dike [dique] s. muro de tierra usado para contener o desviar el curso de las aguas. (p. 282)

distance decay [deterioro de la distancia] s. término que se refiere al concepto de que a mayor distancia entre dos puntos, menor interacción entre los mismos. (p. 389)

diversify [diversificar] v. aumentar la variedad de productos en la economía de un país; promover la industria fabril y otras industrias con el propósito de lograr el desarrollo y la estabilidad. (p. 462)

Dome of the Rock [Cúpula de la Roca] s. un santuario en Jerusalén, ubicado en el monte del Templo, que contiene el lugar donde los musulmanes creen que Mahoma se elevó a los cielos y donde los judíos creen que Abraham preparó el sacrificio de su hijo Isaac a Dios. (p. 511)

Dominion of Canada [Dominio de Canadá] s. la amplia confederación de Ontario (Alto Canadá), Quebec (Bajo Canadá), Nueva Escocia y Nuevo Brunswick, creada por el Acta de la América del Norte Británica en 1867. (p. 156)

drainage basin [cuenca de drenaje] s. una zona drenada por un río importante y sus afluentes. (p. 33)

drip irrigation [irrigación por goteo] s. la práctica de usar tubos pequeños que lentamente gotean agua justo sobre el suelo para conservar agua para usarse en los cultivos. (p. 496)

drought [sequía] s. un largo período sin lluvia o con precipitación mínima. (p. 53)

dynasty [dinastía] s. una serie de gobernantes de la misma familia. (p. 635)

E

earthquake [terremoto] s. un movimiento a veces violento de la tierra, producido cuando placas tectónicas se tocan o deslizan una sobre otra en una falla. (p. 39)

economic system [sistema económico] s. la forma como la gente produce e intercambia bienes. (p. 91)

economic tiger [tigre económico] s. un país con rápido crecimiento económico debido al bajo coste de la mano de obra, la alta tecnología y las exportaciones agresivas. (p. 645)

economy [economía] s. la producción y el intercambio de bienes y servicios entre un grupo de personas. (p. 91)

ecosystem [ecosistema] s. una comunidad interdependiente de plantas y animales. (p. 65)

El Niño [El Niño] s. un patrón meteorológico creado por el calentamiento de las aguas de las costas occidentales de América del Sur, que empuja aguas cálidas y fuertes lluvias hacia el continente americano y produce condiciones de sequía en Australia y Asia. (p. 57)

entrepreneur [empresario] s. persona que inicia y desarrolla un negocio. (p. 575)

epicenter [epicentro] s. el punto en la superficie terrestre que corresponde a la ubicación en la Tierra donde comienza un terremoto. (p. 39)

equator [ecuador] s. la línea imaginaria que rodea la esfera terrestre, dividiendo la Tierra en las mitades norte y sur. (p. 6)

equinox [equinoccio] s. cada uno de los dos días del año en los cuales el día y la noche tienen la misma duración; marca el comienzo de la primavera y el otoño. (p. 49)

erosion [erosión] s. el resultado del desgaste de la materia producido por la acción del viento, el agua, el hielo o la gravedad. (p. 43)

escarpment [escarpa] s. declive empinado de un terreno con una meseta casi plana en la cima. (p. 417)

estuary [estuario] s. desembocadura de un río con una amplia apertura por donde las corrientes del río chocan con las mareas del océano. (p. 563)

ethnic cleansing [limpieza étnica] s. la política de tratar de eliminar a un grupo étnico. (p. 320)

ethnic group [grupo étnico] s. un grupo de personas que comparten un idioma, costumbres y una herencia común. (p. 71)

Euphrates River [Río Éufrates] s. un río en el Sudoeste asiático que sirvió de apoyo a varias civilizaciones antiguas, fluye a través de regiones de Turquía, Siria e Irak y desemboca en el Golfo Pérsico. (p. 489)

Eurasia [Eurasia] s. los continentes combinados de Europa y Asia. (p. 346)

euro [euro] s. moneda común propuesta por la Unión Europea para sus naciones miembros. (p. 305)

European Environmental Agency [Agencia Europea del Medio Ambiente] s. esta agencia proporciona a la Unión Europea información confiable sobre el medio ambiente. (p. 324)

Everglades [Everglades] s. una amplia zona de terrenos pantanosos subtropicales en la Florida, de cerca de 4.000 millas cuadradas (10.400 kilómetros cuadrados). (p. 126)

export [exportación] s. un producto o bien que se vende desde una economía a otra. (p. 140)

F

Fang sculpture [esculturas de los fangs] s. cajas talladas que contienen las calaveras y los huesos de los antepasados muertos, creadas por los fangs, que vivieron en Gabón, la región sur de Camerún y Guinea Ecuatorial. (p. 451)

fault [falla] s. una fractura en la corteza terrestre. (p. 39)

folk art [arte folclórico] s. artículos hechos a mano, como cerámica, objetos tallados en madera y trajes tradicionales, elaborados por habitantes de zonas rurales que llevan estilos de vida tradicionales, no por artistas profesionales. (p. 314)

federal republic [república federal] s. una nación cuyos poderes están divididos entre el gobierno federal o nacional y varios gobiernos estatales o locales. (p. 139)

feudalism [feudalismo] s. un sistema político imperante en Europa entre el s. IX y el s. XV, en el cual el rey permitía a los nobles el uso de sus tierras a cambio de servicios militares y la protección de la tierra. (p. 297)

fertility rate [índice de fertilidad] s. el número promedio de hijos que una mujer en edad fértil tendría durante su vida si tuviese hijos de acuerdo con el índice vigente para su país. (p. 78)

First Nations [Primeras Naciones] s. un grupo de indígenas del Canadá. (p. 159)

fjord [fiordo] s. una entrada larga, estrecha y profunda del mar en la tierra entre pendientes empinadas. (p. 273)

fossil water [agua fósil] s. agua bombeada desde acuíferos subterráneos. (p. 496)

free enterprise [libre empresa] s. sistema económico en el cual individuos privados son dueños de la mayor parte de los recursos, la tecnología y las empresas, y pueden explotarlos para obtener ganancias con poco control del gobierno. (p. 140)

frontier [frontera] s. la tierra libre y abierta en el Oeste Norteamericano que estaba disponible para colonización. (p. 137)

G

Ganges River [Río Ganges] s. río en el Sur de Asia, un importante recurso acuático que fluye más de 1.500 millas (2.415 km) desde su fuente en un glaciar del Himalaya hasta la Bahía de Bengala. (p. 560)

Gaza Strip [Franja de Gaza] s. territorio a lo largo del Mar Mediterráneo, justo al noreste de la Península del Sinaí; parte del territorio asignado a los palestinos y que fue ocupado por Israel en 1967. (p. 527)

Geographic Information System (GIS) [Sistema de Información Geográfica (GIS por sus siglas en inglés)] s. tecnología que usa información de mapas digitalizados para crear un banco de datos; diferentes "capas de datos" pueden combinarse para producir mapas especializados. El GIS permite a los geógrafos analizar diferentes aspectos de un lugar específico para resolver problemas. (p. 13)

geography [geografía] s. estudio de la distribución y la interacción de las características físicas y humanas de la Tierra. (p. 5)

glaciation [glaciación] s. cambios en los accidentes geográficos debidos al lento movimiento de los glaciares. (p. 44)

glacier [glaciar] s. una masa de hielo grande y duradera que se mueve debido al efecto de la gravedad. (p. 44)

global economy [economía global] s. la fusión de economías regionales por la cual las naciones se vuelven dependientes unas de otras para la producción de bienes y servicios. (p. 666)

global network [red mundial] s. grupo que se mantiene conectado alrededor del mundo. (p. 173)

global warming [calentamiento global] s. la acumulación de dióxido de carbono (anhídrido carbónico) en la atmósfera, lo que evita que el calor escape al espacio, aumentando las temperaturas y ocasionando cambios en las condiciones meteorológicas. (p. 246)

globe [globo] s. una representación tridimensional de la Tierra. (p. 10)

Gobi Desert [Desierto de Gobi] s. desierto ubicado en el norte de China y en el sudeste de Mongolia, zona importante para la localización de fósiles de dinosaurios. (p. 627)

Golan Heights [Altos del Golán] s. meseta montañosa que se eleva sobre el Río Jordán y el Mar de Galilea; un punto estratégico que ha sido sitio de conflictos en el Sudoeste asiático durante décadas. (p. 487)

Gorée Island [Isla de Gorée] s. isla en las costas de Senegal que sirvió como importante punto de partida de esclavos durante el tráfico de esclavos. (p. 442)

Great Barrier Reef [La Gran Barrera de Coral] s. una cadena de 1.250 millas (2.000 km) de más de 2.500 arrecifes e islas a lo largo de la costa noreste de Australia, que contiene unas 400 especies de coral. (p. 692)

Great Game [El Gran Juego] s. un conflicto entre el Imperio Británico y el Imperio Ruso por el control del Asia Central en el s. XIX. (p. 376)

Great Kanto Earthquake [El Gran Terremoto de Kanto] s. terremoto ocurrido en 1923 en Japón que causó la muerte de aproximadamente 140.000 personas y dejó la ciudad de Tokio en ruinas. (p. 662)

Great Lakes [Grandes Lagos] s. grupo de cinco lagos de agua dulce en la región central de América del Norte entre los Estados Unidos y Canadá; los lagos son el Hurón, el Ontario, el Michigan, el Erie y el Superior. (p. 121)

Great Plains [Grandes Llanuras] s. una amplia zona de praderas en la región central de América del Norte, carente de árboles en su mayor parte, que se eleva hasta 4.000 pies (1.200 metros) sobre el nivel del mar. (p. 119)

Great Zimbabwe [El Gran Zimbabwe] s. un emplazamiento urbano en lo que es hoy Zimbabwe fundado por los shonas alrededor del año 1000; se convirtió en la capital de una próspera zona de comercio de oro. (p. 453)

greenhouse effect [efecto invernadero] s. la capa de gases emitidos por la quema de carbón y petróleo que atrapa la energía solar, elevando la temperatura de la Tierra. (p. 58)

Green Revolution [La Revolución Verde] s. programa agrícola lanzado por científicos en la década de 1960 para producir variedades de granos de mayor rendimiento y mejorar la producción de alimentos incorporando nuevas técnicas de labranza. (p. 569)

Gross Domestic Product (GDP) [Producto Interior Bruto (PIB)] s. el valor de sólo bienes y servicios producidos en un país durante un período determinado. (p. 95)

Gross National Product (GNP) [Producto Nacional Bruto (PNB)] s. el valor total de todos los bienes y servicios producidos por un país durante un período determinado. (p. 94)

ground water [agua subterránea] s. agua retenida debajo de la superficie terrestre, con frecuencia en y alrededor de los poros de las rocas. (p. 33)

guest worker [trabajador invitado] s. trabajadores poco calificados, a menudo inmigrantes del Sur y el Este de Asia, trasladados a los países productores de petróleo para ocupar puestos de trabajo que las personas nacidas en la región consideran cultural y económicamente inaceptables. (p. 525)

H

hemisphere [hemisferio] s. cada una de las dos mitades de la esfera terrestre. (p. 6)

high islands [Islas altas] s. islas del Pacífico creadas por volcanes. (p. 691)

Himalaya Mountains [Himalaya] s. cordillera del Sur de Asia que incluye el Monte Everest, el pico más alto del mundo. (p. 551)

Hinduism [Hinduismo] s. la religión dominante en la India. (p. 560)

Holocaust [Holocausto] s. programa de los nazis de asesinatos masivos de judíos europeos durante la II Guerra Mundial. (p. 298)

Huang He [Huang He] s. río del Norte de China, llamado también Río Amarillo, que nace en las Montañas Kunlun y se extiende unas 3.000 millas (4.800 km) hacia el Este, desembocando en el mar Amarillo. (p. 621)

human resources [recursos humanos] s. las aptitudes y los talentos de la gente que trabaja. (p. 531)

humus [humus] s. material orgánico en el suelo. (p. 45)

hurricane [huracán] s. una tormenta que se forma sobre las aguas cálidas de los océanos tropicales. (p. 51)

hydrologic cycle [ciclo hidrológico] s. la continua circulación de agua entre la atmósfera, los océanos y la Tierra. (p. 32)

hydrosphere [hidrosfera] s. las aguas que comprenden la superficie de la Tierra, incluyendo océanos, mares, ríos, lagos y el vapor en la atmósfera. (p. 28)

I

Ijsselmeer [Ijsselmeer] s. lago de agua dulce separado del Mar del Norte por un dique y bordeado por polders. (p. 283)

illiteracy [analfabetismo] s. la incapacidad de leer o escribir. (p. 593)

Inca [Inca] s. miembro del pueblo quechua en América del Sur, que desarrolló una civilización en los Andes en los siglos XV y XVI. (p. 230)

Indochina [Indochina] s. colonia francesa compuesta por Camboya, Laos y Vietnam; obtuvo la independencia de Francia en 1954. (p. 707)

industrialization [industrialización] s. el desarrollo de la industria en un país o en una sociedad. (p. 730)

Indus Valley civilization [Civilización del Valle del Indo] s. la más grande de las primeras civilizaciones del mundo en lo que hoy es Pakistán; fue una civilización urbana altamente desarrollada, que duró desde el 2500 hasta cerca del 1500 antes de nuestra era. (p. 573)

infant mortality rate [índice de mortalidad infantil] s. el número de muertes de niños menores de un año, calculado por cada mil nacimientos vivos. (p. 79)

infrastructure [infraestructura] s. los sistemas básicos de apoyo necesarios para mantener una economía en desarrollo, que incluyen sistemas de suministro de energía, comunicaciones, transporte, aguas, servicios sanitarios y educación. (pp. 94, 177, 212)

innovation [innovación] s. tomar los elementos existentes en una sociedad para crear algo nuevo con el propósito de satisfacer una necesidad. (p. 72)

Institutional Revolutionary Party (PRI) [Partido Revolucionario Institucional (PRI)] s. partido político creado en México, en 1929, que ayudó a introducir la democracia y mantener la estabilidad política durante la mayor parte del siglo XX. (p. 218)

Islam [Islam] s. religión monoteísta basada en las enseñanzas del profeta Mahoma y la mayor influencia cultural y religiosa en el Norte de África. (pp. 439, 503)

J

Jakota Triangle [Triángulo de Jakota] s. zona de prosperidad en la década de 1980 y comienzos de la década de 1990, que comprende Japón, Corea del Sur y Taiwán. (p. 666)

Jordan River [Río Jordán] s. río que sirve como frontera natural entre Israel y Jordania, y fluye desde los montes de Líbano sin desembocar en el Mar Mediterráneo. (p. 489)

junta [junta] s. gobierno dirigido por generales después de un golpe militar. (p. 249)

K

Kashmir [Cachemira (Kashmir)] s. región del Norte de la India y Pakistán sobre la que se han librado varias guerras destructivas. (p. 574)

Khmer Empire [Imperio Khmer] s. poderoso imperio que duró aproximadamente del siglo IX al siglo XV, en lo que hoy es Camboya. (p. 706)

King Leopold II [Rey Leopoldo II] s. rey de Bélgica que abrió el interior del África al comercio europeo a lo largo del río Congo y para 1884 controlaba la zona conocida como el Estado Libre del Congo. (p. 449)

KLA (Kosovo Liberation Army) [ELK (Ejército de Liberación de Kosovo)] s. grupo que combatió contra los intentos de los serbios de controlar la región de Kosovo en la década de 1990. (p. 321)

Kunlun Mountains [Cordillera Kunlun] s. cordillera ubicada en el Oeste de China que es la fuente de dos de los principales ríos de China, el Huang He (río Amarillo) y el Chang Jiang (Yangtze) (p. 619)

Kurds [Kurdos] s. grupo étnico en el sudoeste de Asia, que ha ocupado la región de Kurdistán, ubicada en Turquía, Irac e Irán, por cerca de mil años, y que ha estado involucrado en enfrentamientos con estos tres países por recuperar tierras durante la mayor parte del siglo XX. (p. 516)

L

landfill [vertedero] s. método de eliminación de residuos sólidos por el cual los residuos son enterrados entre capas de tierra con el propósito de rellenar o recuperar terrenos bajos. (p. 631)

landform [accidente geográfico] s. una característica de la superficie terrestre formada naturalmente. (p. 33)

landlocked [sin litoral] adj. que no tiene salida al mar. (p. 84)

land reform [reforma agraria] s. proceso por el cual se dividen grandes latifundios con el propósito de lograr una distribución más equitativa de la tierra entre los agricultores. (pp. 250, 569)

Land Rights Act of 1976 [Ley de Derechos de Tierra de 1976] s. una ley especial promulgada en beneficio de los derechos de los aborígenes en Australia, dándoles el derecho de reclamar tierras en el Territorio Norte. (p. 728)

Landsat [Landsat] s. una serie de satélites que orbitan a más de 100 millas (160 km) sobre la Tierra. Cada satélite recoge información en una zona de 115 millas (185 km) de ancho. (p. 12)

latitude (lines) [latitudes (líneas)] s. un conjunto de líneas imaginarias que corren paralelas al ecuador, las cuales son usadas para localizar lugares al Norte y al Sur. El ecuador es denominado la línea de cero grados de latitud. (p. 6)

lava [lava] s. magma que ha llegado hasta la superficie terrestre. (p. 40)

lithosphere [litosfera] s. la capa de roca sólida de la superficie terrestre. (p. 28)

llanos [llanos] s. una extensa zona de praderas sin árboles de América del Sur, utilizada para pastoreo y labranza. (p. 202)

lock [esclusa] s. una sección de una vía acuática con puertas de entrada y salida donde se llenan o vacían de agua los espacios entre las mismas, a través de las cuales pasan los barcos. (p. 129)

loess [loess] s. sedimentos de limo o arcilla depositados por el viento que producen tierras muy fértiles. (p. 44)

longitude (lines) [longitud (líneas)] s. un conjunto de líneas imaginarias que circundan la Tierra por los polos, dividiéndola en las zonas Este y Oeste. El primer meridiano (meridiano de Greenwich) ha sido designado como la línea de cero grados para longitud. (p. 6)

Louisiana Purchase [La Compra de Louisiana] s. el territorio, incluyendo la región entre el río Mississippi y las Montañas Rocosas, que los Estados Unidos compró a Francia en 1803. (p. 136)

low islands [Islas bajas] s. islas del Pacífico formadas por arrecifes de coral. (p. 691)

M

Mabo Case [el caso *Mabo*] s. en Australia, el proceso jurídico por el cual se declaró con lugar la reclamación de tierra del aborigen Eddie Mabo, por medio del cual el tribunal reconoció que los aborígenes eran dueños de tierras antes de la llegada de los británicos. (p. 728)

Mackenzie River [Río Mackenzie] s. el río más largo del Canadá, el cual es parte de un sistema fluvial que fluye a lo largo de los Territorios del Noroeste hasta el Océano Ártico. (p. 121)

magma [magma] s. material de roca fundida creada cuando roca sólida en el manto o corteza funde. (p. 28)

malaria [malaria] s. enfermedad infecciosa de los glóbulos rojos propagada por mosquitos, que se caracteriza por escalofríos, fiebre y sudor. (p. 466)

mandala [mandala] s. diseño geométrico usado en el budismo tibetano como símbolo del universo y que ayuda en la meditación. (p. 583)

mandala [mandala] s. un estado organizado como un anillo de poder alrededor de una corte central, que con frecuencia cambiaba de tamaño con el tiempo y que era usado en lugar de fronteras en los antiguos estados del sudeste asiático. (p. 705)

mantle [manto] s. una capa de roca de unas 1.800 millas (2.896 km) que está entre la corteza y el centro de la Tierra. (p. 28)

Maori [Maori] s. los primeros pobladores de Nueva Zelanda, que emigraron de Polinesia hace más de 1.000 años. (p. 719)

Mao Zedong [Mao Zedong] s. líder de China comunista que derrotó a los Nacionalistas en 1949; falleció en 1976. (p. 636)

map projection [proyección cartográfica] s. una forma de trazar el mapa de la superficie de la Tierra que reduce la distorsión causada convirtiendo tres dimensiones en dos dimensiones. (p. 10)

map [mapa] s. representación gráfica bidimensional de partes selectas de la superficie de la Tierra. (p. 10)

maquiladora [maquiladora] s. fábrica en México que ensambla materiales importados para convertirlos en productos acabados de exportación. (p. 220)

market economy [economía de mercado] s. tipo de sistema económico en el cual la producción de bienes y servicios se determina por la demanda de los consumidores. Llamado también economía de demanda o capitalismo. (pp. 91, 313)

Massif Central [Massif Central] s. las tierras altas de Francia, que abarcan un sexto del territorio francés. (p. 275)

Mecca [Meca] s. la ciudad más sagrada del Islam, situada en Arabia Saudita, a la que la gente hace peregrinaciones para cumplir con deberes religiosos islámicos. (p. 503)

mechanical weathering [meteorización mecánica] s. proceso natural por el cual las rocas se descomponen en pedazos más pequeños. (p. 42)

megalopolis [megalópolis] s. una región en la cual varias ciudades grandes y las áreas circundantes se unen. (p. 146)

Melanesia [Melanesia] s. región en Oceanía que significa "islas negras." (p. 713)

Meseta [Meseta] s. la planicie central de España. (p. 275)

Mesopotamia [Mesopotamia] s. una región en el sudoeste asiático entre los ríos Tigris y Eufrates, donde se desarrollaron algunas de las civilizaciones más antiguas del mundo; parte del corazón cultural denominado la Media Luna de las tierras fértiles. (p. 516)

métis [métis] s. una persona con antepasados franco-canadienses e indígenas americanos. (p. 161)

metropolitan area [área metropolitana] s. área funcional que incluye una ciudad y los suburbios y exurbios que la rodean, económicamente ligados entre sí. (pp. 87, 148)

microcredit [microcrédito] s. un pequeño préstamo disponible a los empresarios de escasos recursos para ayudar a las empresas pequeñas a desarrollarse y elevar los niveles de vida. (p. 575)

Micronesia [Micronesia] s. una de las tres regiones de Oceanía, el nombre significa "islas pequeñas". (p. 713)

Midwest [El Medio-Oeste] s. la región que contiene los 12 estados de la zona Norte-Central de los Estados Unidos. (p. 147)

migration [migración] s. el desplazamiento de gente dentro de un mismo país o región. (p. 135)

Mississippi River [Río Mississippi] s. un importante río que fluye de norte a sur por casi todo el largo de los Estados Unidos, desde Minnesota hasta el Golfo de México y forma parte del sistema fluvial más largo del continente. (p. 121)

mistral [mistral] s. viento frío y seco del norte. (p. 279)

Mobutu Sese Seko [Mobutu Sese Seko] s. líder de Zaire, la actual República Democrática del Congo, desde su independencia en la década de 1960 hasta 1997. Puso los negocios del país bajo el control nacional, se benefició de la reorganización y utilizó el ejército para conservar el poder. (p. 450)

monarchy [monarquía] s. tipo de gobierno en el cual una familia gobernante dirigida por un rey o una reina, tiene el poder y puede o no compartirlo con organismos ciudadanos. (p. 83)

monsoon [monzón] s. viento estacional, especialmente en el Asia meridional. (p. 558)

moraine [morrena] s. una cadena o colina de rocas transportada y finalmente depositada por un glaciar. (p. 44)

mortality rate [índice de mortalidad] s. el número de muertes por cada mil. (p. 79)

mosque [mezquita] s. un lugar de culto islámico, donde los mahometanos rezan con el rostro orientado hacia la ciudad sagrada de la Meca. (p. 504)

Mount Kilimanjaro [Monte Kilimanjaro] s. un volcán en Tanzania en el Africa, es el pico más alto del Africa. (p. 417)

Mughal Empire [Imperio Mughal] s. el imperio musulmán establecido a comienzos del siglo XVI y que se extendió por gran parte de la India, importando nuevas costumbres que algunas veces entraban en conflicto con las de los hindúes nativos. (p. 568)

Muhammad [Mahoma] s. fundador y profeta del Islam, que vivió parte de su vida en la ciudad de la Meca. (p. 503)

multinational [multinacional] s. una compañía que realiza operaciones comerciales en todo el mundo. (p. 142)

Mutapa Empire [Imperio de Monomotapa] s. un estado fundado en el siglo XV por un hombre llamado Mutota y que se extendió por todo lo que hoy es Zimbabwe excepto su parte oriental. (p. 453)

N

Nagorno-Karabakh [Nagorno-Karabakh] s. la zona montañosa de Azerbaiján, por la cual combatieron Armenia y Azerbaiján. (p. 386)

nation [nación] s. un grupo de personas con una cultura común que viven en un territorio y tienen un fuerte sentimiento de unidad. (p. 83)

nationalism [nacionalismo] s. la creencia de que la gente tiene que ser leal con su nación y con las demás personas con la que comparte la tierra, la cultura y la historia. (p. 297)

nation-state [nación-estado] s. nombre de un territorio cuando una nación y un estado ocupan el mismo territorio. (p. 83)

natural resource [recurso natural] s. un material sobre o dentro de la Tierra, como un árbol, un pez o el carbón, que tiene valor económico. (p. 93)

needleleaf [acicular] adj. característica de las hojas de ciertos árboles como el pino, el abeto y el cedro, que se encuentran en las regiones del norte de América del Norte. (p. 66)

Nelson Mandela [Nelson Mandela] s. uno de los líderes del Congreso Nacional Africano que dirigió la lucha contra el apartheid y fue elegido presidente en 1994, en las primeras elecciones multirraciales de Sudáfrica. (p. 454)

New England [Nueva Inglaterra] s. los seis estados del norte en la región noreste de los Estados Unidos: Maine, Vermont, New Hampshire, Massachusetts, Rhode Island y Connecticut. (p. 145)

Niger delta [Delta del Níger] s. delta del río Níger y zona de Nigeria rica en depósitos de petróleo. (p. 424)

Nile River [Río Nilo] s. el río más largo del mundo, que recorre más de 4.000 millas (6.436 km) a través de la cuenca del Sudán, hasta Uganda, el Sudán y Egipto. (p. 416)

nomad [nómada] s. persona que no tiene residencia permanente y se traslada según las estaciones de un lugar a otro en busca de alimentos, agua y tierra para pastoreo. (p. 127, 378)

nonviolent resistance [resistencia pacífica] s. un movimiento que usa todos los medios de protesta excepto la violencia. (p. 568)

Nordic countries [países nórdicos] s. países del norte de Europa, entre ellos Dinamarca, Finlandia, Islandia, Noruega y Suecia. (p. 302)

NAFTA (North American Free Trade Agreement) [NAFTA (Tratado de Libre Comercio de América del Norte)] s. un acuerdo comercial importante que creó una amplia zona de cooperación sobre asuntos comerciales y económicos en América del Norte. (p. 220)

North Atlantic Drift [Corriente del Atlántico Norte] s. una corriente de agua cálida proveniente de los Trópicos. (p. 278)

Nunavut [Nunavut] s. uno de los territorios del Canadá, donde viven muchos de los esquimales del Canadá; fue forjado de la mitad este de los Territorios Noroestes en 1999. (p. 169)

O

oasis [oasis] s. un lugar donde agua de un acuífero ha llegado hasta la superficie; permite el desarrollo de vegetación y fauna. (pp. 421, 492)

Oceania [Oceanía] s. grupo de islas del Pacífico, que incluye Melanesia, Micronesia y Polinesia. (p. 690)

Olduvai Gorge [Garganta Olduvai] s. un lugar de capas fosilíferas en el norte de Tanzania, que contiene el historial más continuo que se conoce de vida humana en los últimos 2 millones de años, incluyendo fósiles de 65 homínidos. (p. 431)

oligarchy [oligarquía] s. un gobierno dirigido por unas cuantas personas o un pequeño grupo. (p. 249)

“one-commodity” country [país de “un solo producto”] s. país que depende de un producto de exportación principal para muchos de sus ingresos. (p. 462)

Ontario [Ontario] s. una de las Provincias más importantes del Canadá. (p. 167)

OPEC [OPEP] s. Organización de Países Exportadores de Petróleo, grupo establecido en 1960 por algunos países productores de petróleo para coordinar políticas sobre venta de productos de petróleo. (p. 505)

Orinoco River [Río Orinoco] s. río que corre principalmente por Venezuela y forma parte del sistema fluvial más hacia el norte de América del Sur. (p. 202)

outback [“outback”] s. zona seca y despoblada en el interior de Australia. (p. 697)

outrigger canoe [canoa con balancines] s. una embarcación pequeña usada en las lagunas de islas en las que se establecieron isleños del Pacífico. (p. 699)

ozone [ozono] s. una sustancia química que se produce cuando combustibles fósiles en combustión reaccionan con la luz del sol; una forma de oxígeno. (p. 325)

P

Pacific Rim [Cuenca del Pacífico] s. una región económica y social que incluye los países que rodean el Océano Pacífico, la cual se extiende en el sentido de las manecillas del reloj desde Nueva Zelanda en la región occidental del Pacífico hasta Chile en la región oriental del Pacífico e incluye la costa oeste de los Estados Unidos. (p. 645)

pakehas [pakehas] s. término maorí para designar a las personas blancas, a los neozelandeses de ascendencia europea. (p. 722)

Palestine Liberation Organization (PLO) [Organización para la Liberación de Palestina (OLP)] s. grupo formado en la década de 1960 para recuperar las tierras árabes en Israel para los árabes palestinos. (p. 513)

Palestinians [Palestinos] s. grupo de árabes desplazados que vivían o viven todavía en la zona llamada anteriormente Palestina y ahora denominada Israel. (p. 527)

pampas [pampas] s. amplia zona de praderas y tierras fértiles en la región sur-central de América del Sur. (p. 202)

Panama Canal [Canal de Panamá] s. canal para embarcaciones a través de Panamá que conecta el Mar Caribe con el océano Pacífico. (p. 226)

pandemic [pandemia] s. una enfermedad que afecta a un gran número de habitantes de una amplia zona geográfica. (p. 435)

Paraná River [Río Paraná] s. río en la región central de América del Sur y uno de sus tres sistemas fluviales más importantes, que nace en las tierras altas del Sur del Brasil y fluye unas 3.000 millas (4.827 km) hacia el sur y el oeste. (p. 203)

parliament [parlamento] s. cuerpo legislativo representativo cuyos miembros son elegidos o designados y cuyas funciones legislativas y ejecutivas están combinadas. (pp. 158, 303)

parliamentary government [gobierno parlamentario] s. sistema en el cual las funciones legislativas y ejecutivas están combinadas en una legislatura llamada parlamento. (p. 158)

particulate [macropartícula] s. partícula muy pequeña de materia líquida o sólida. (p. 324)

partition [partición] s. separación; división en dos o más unidades territoriales con estatus político separado. (p. 574)

pastoral lease [arrendamiento pastoral] s. en Australia, gran extensión de terreno que todavía es propiedad del gobierno; los rancheros arriendan la tierra del gobierno. (p. 729)

PCB [PCB (policlorobifenilo)] s. un compuesto industrial que se acumula en el tejido animal y puede ocasionar efectos perjudiciales y defectos congénitos; el PCB fue prohibido en los Estados Unidos en 1977. (p. 631)

peat [turba] s. materia vegetal parcialmente descompuesta que se encuentra en las turberas. (p. 277)

penal colony [colonia penal] s. lugar donde son enviados los prisioneros. (p. 718)

per capita income [ingreso per cápita] s. la cantidad de dinero promedio que gana una persona en una unidad política. (p. 94)

permafrost [permafrost (pergelisol)] s. terreno permanentemente congelado. (pp. 63, 123)

polder [pólder] s. terreno protegido contra el mar u otra masa de agua mediante diques o drenaje. (p. 282)

Polynesia [Polinesia] s. una de las tres regiones de Oceanía, cuyo nombre significa, “muchas islas”. (p. 713)

population density [densidad poblacional] s. el número promedio de habitantes de una zona mensurable, el cual se obtiene dividiendo el número de habitantes en la zona por la cantidad de tierra que ocupan. (p. 81)

population pyramid [pirámide poblacional] s. un dispositivo gráfico que muestra la distribución de una población por sexo y edad. (p. 79)

postindustrial economy [economía postindustrial] s. fase económica en la cual la manufactura no desempeña un papel dominante. (p. 142)

Prairie Provinces [Las Provincias de las Praderas] s. en Canadá, las provincias que se encuentran al oeste de Ontario y Quebec: Manitoba, Saskatchewan y Alberta. (p. 168)

precipitation [precipitación] s. gotas de agua que caen en forma de lluvia, aguanieve, nieve o granizo. (p. 50)

prevailing westerlies [vientos del oeste predominantes] s. vientos que soplan de oeste a este. (p. 124)

prime meridian [primer meridiano] s. la línea imaginaria a cero meridiano usada para medir longitud de este a oeste, y que divide la Tierra en dos mitades, este y oeste; llamado meridiano de Greenwich porque pasa por Greenwich, Inglaterra. (p. 6)

prime minister [primer ministro] s. la cabeza del gobierno; el líder del partido de la mayoría en el parlamento. (p. 158)

privatization [privatización] s. la venta de empresas propiedad del Estado a ciudadanos privados. (p. 388)

province [provincia] s. una unidad política. (p. 156)

pull factor [factor de atracción] s. un factor que atrae o arrastra a personas a otro lugar. (pp. 81, 211)

push factor [factor de empuje] s. un factor que hace que la gente abandone sus hogares y emigre a otra región. (pp. 81, 211, 730)

Pyongyang [Pyongyang] s. la ciudad más grande de Corea del Norte, con más de 2.500 millones de habitantes. (p. 650)

Q

Qin Ling Mountains [Montañas de Qin Ling] s. montañas de la región sudeste y este central de China; dividen la parte norte de China de la parte sur. (p. 619)

Quebec [Quebec] s. una de las provincias más importantes del Canadá. (p. 167)

Quechua [Quechua] s. idioma del Imperio Inca, hablado actualmente en las tierras de la zona andina. (p. 231)

R

rai [rai] s. tipo de música popular argelina compuesta en la década de 1920 por niños pobres de las zonas urbanas, con ritmos rápidos bailables; algunas veces se usó como forma de rebeldía para expresar el descontento político. (p. 440)

rain forest [selva tropical] s. una región selvática ubicada en la Zona Tropical con una gran concentración de diferentes especies de árboles de hojas anchas. (pp. 66, 207)

rain shadow [sombra de lluvia] s. la tierra del lado de sotavento de colinas o montañas que recibe muy poca lluvia del aire seco descendiente. (p. 51)

raj [raj] s. el período de gobierno británico en la India que duró cerca de 200 años, de 1857 a 1947. (p. 568)

Ramadan [Ramadán] s. práctica islámica de ayunar un mes desde que sale el sol hasta que se pone. (p. 576)

rate of natural increase [tasa de aumento natural] s. llamada también tasa de crecimiento demográfico; la tasa de crecimiento poblacional, que se encuentra restando la tasa de mortalidad de la tasa de natalidad. (p. 79)

recession [recesión] s. un período prolongado de descenso en la actividad comercial general. (p. 667)

Red Army [Ejército Rojo] s. nombre del ejército de la Unión Soviética. (p. 371)

refinery [refinería] s. lugar donde el petróleo crudo es convertido en productos útiles. (p. 497)

Reformation [Reforma] s. movimiento en Europa Occidental iniciado en 1517, cuando muchos cristianos se desligaron de la Iglesia Católica para fundar iglesias protestantes; esto produjo hostilidades mutuas y guerras religiosas que desgarraron a Europa. (p. 297)

reggae [reggae] s. un estilo de música creado en Jamaica en la década de 1960, que tiene sus raíces en la música africana, caribeña y americana, con frecuencia trata sobre problemas sociales y religión. (p. 227)

relative location [ubicación relativa] s. describe un lugar en relación con otros lugares que lo rodean. (p. 6)

relief [relieve] s. la diferencia en elevación de una forma fisiográfica, desde el punto más bajo hasta el punto más alto. (p. 36)

religion [religión] s. la creencia en un poder o poderes sobrenaturales que se consideran como los creadores y conservadores del universo, así como el propio sistema de creencias. (p. 75)

Renaissance [Renacimiento] s. época de renovado interés por la educación y las artes que duró del s. XIV al s. XVI; comenzó en los estados-ciudades italianos y se extendió hacia el norte por toda Europa. (p. 291)

representative democracy [democracia representativa] s. un gobierno en el cual el pueblo gobierna mediante sus representantes elegidos. (p. 139)

republic [república] s. gobierno en el cual los ciudadanos eligen a sus representantes para que gobiernen en su nombre. (p. 290)

reserve [reserva] s. terrenos públicos destinados por el gobierno para los pueblos indígenas. (p. 162)

Richter scale [escala de Richter] s. una forma de medir información registrada por los sismógrafos para determinar la fuerza relativa de un terremoto. (p. 40)

rift valley [Valle del Rift] s. un valle largo y delgado creado por la separación de las placas continentales, presente en África Oriental, el cual se prolonga por 4.000 millas (6.436 km) desde Jordania en el Sudoeste asiático hasta Mozambique en el Sur de África. (p. 416)

Ring of Fire [El Anillo de Fuego] s. la cadena de volcanes que bordea la cuenca del Pacífico. (pp. 41, 661)

Rocky Mountains [Las Montañas Rocosas] s. un importante sistema montañoso de los Estados Unidos y el Canadá que se extiende por 3.000 millas (4.827 km) desde Alaska hacia el Sur hasta Nuevo México. (p. 119)

Rub al Khali [Rub' Al Jali] s. conocido también como el Cuarto Vacío, uno de los desiertos arenosos más grandes del mundo, abarca cerca de 250.000 millas cuadradas (650 mil kilómetros cuadrados); ubicado en la Península Arábiga. (p. 491)

Russian Revolution [Revolución Rusa] s. la revuelta de 1917 por la cual el Partido Comunista Ruso dirigido por V. I. Lenin, tomó el control del gobierno de los zares. (p. 363)

runoff [escorrentía] s. agua de lluvia no absorbida por el suelo y que puede transportar pesticidas y fertilizantes de los campos a los ríos, poniendo en peligro la cadena alimentaria. (p. 353)

S

Sahara [Sahara] s. el desierto más grande del mundo, que se extiende 3.000 millas (4.827 km) por el continente africano, desde el Océano Atlántico hasta el Mar Rojo, y mide 1.200 millas (1.930 km) de norte a sur. (p. 420)

Sahel [Sahel] s. una banda estrecha de pradera seca, que se extiende de este a oeste en el borde sur del Sahara, usada para agricultura y pastoreo. (p. 424)

St. Lawrence Seaway [La Ruta Marítima del San Lorenzo] s. la ruta de barcos de aguas profundas más importante de América del Norte, la cual conecta los Grandes Lagos con el Océano Atlántico a través del Río San Lorenzo. (p. 129)

St. Petersburg [San Petersburgo] s. la vieja capital de Rusia, fundada por Pedro el Grande, que trasladó la capital allí desde Moscú, debido a que San Petersburgo tenía acceso directo por mar hacia Europa Occidental. (p. 362)

salt flat [salinas] s. terrenos planos formados por sales químicas que permanecen después de que los vientos evaporan la humedad del suelo. (p. 492)

samba [samba] s. danza brasileña con influencia africana. (p. 239)

samurai [samurai] s. soldado profesional japonés al servicio de los intereses de terratenientes y jefes de clanes. (p. 651)

satellite nation [país satélite] s. un país dominado por otro. (p. 312)

savanna [sabana] s. término para describir las llanuras herbáceas que carecen de árboles en su mayor parte, en la región de las praderas tropicales. (p. 66)

seawork [espigón] s. una estructura utilizada para controlar el impacto destructivo del mar en la vida humana. (p. 283)

sectionalism [faccionalismo] s. cuando la gente pone su lealtad a su región o sección por encima de la lealtad al país. (p. 136)

sediment [sedimento] s. pequeños trozos de roca producidos por la acción de los elementos. (p. 42)

seismograph [sismógrafo] s. un dispositivo para medir el tamaño de las ondas creadas por un terremoto. (p. 39)

Seoul [Seúl] s. la ciudad más grande de Corea del Sur, con una población de más de diez millones de habitantes. (p. 650)

Serengeti [Serengeti] s. zona de África Oriental, que tiene muchas de las mejores praderas del mundo y muchos animales de pastoreo. (p. 422)

service industry [industria de servicios] s. cualquier tipo de actividad económica que produce servicios en vez de productos. (p. 142)

Sherpa [Sherpa] s. una persona de ascendencia tibetiana en Nepal, que trabaja como guía tradicional en la región del Monte Everest. (p. 582)

Shi'ite [Shiita] s. una de las dos principales ramas del Islam, que incluye a la mayoría de los iraníes y parte de las poblaciones de Irak y Afganistán. (p. 517)

shogun [Shogun] s. el general del ejército del emperador con poderes de dictador militar, una posición creada por el emperador del Japón en 1192 después de una lucha entre dos clanes poderosos. (p. 651)

Siberia [Siberia] s. región del centro y la zona este de Rusia que se extiende desde los Montes Urales hasta el Océano Pacífico, conocida por sus recursos minerales y por ser un lugar de exilio político. (p. 349)

Siddhartha Gautama [Siddhartha Gautama] s. fundador del budismo y conocido como Buda, nacido en el Sur de Nepal en el siglo sexto antes de nuestra era. (p. 582)

Silicon Glen [Silicon Glen] s. sección de Escocia entre Glasgow y Edimburgo, así denominada por su alta concentración de compañías de alta tecnología. (p. 305)

Silk Road [La Ruta de la Seda] s. la ruta de 4.000 millas (6.436 km) entre China y el Mar Mediterráneo, así llamada por la costosa seda adquirida en China. (p. 375)

silt [limo] s. material sedimentario suelto que contiene partículas de roca muy pequeñas, formado por depósitos de ríos y muy fértil. (p. 426)

Sinhalese [cingalés] s. pueblo indo-ario que cruzó el estrecho que separa la India y Sri Lanka en el siglo sexto antes de nuestra era y creó una civilización avanzada, adoptando el budismo. (p. 584)

sirocco [siroco] s. viento cálido y constante del Sur que sopla desde África del Norte a través del Mar Mediterráneo hasta el Sur de Europa, usualmente en la primavera. (p. 279)

slash-and-burn [cortar y quemar] s. método para despejar los campos para plantar, que consiste en cortar y quemar árboles, arbustos y hierbas. (p. 210)

smart growth [crecimiento inteligente] s. el uso eficiente y la conservación de la tierra y otros recursos. (p. 178)

smog [smog] s. una niebla marrón que se produce cuando los gases liberados por combustibles fósiles en combustión reaccionan con la luz solar. (p. 324)

society [sociedad] s. un grupo que comparte una región geográfica, un idioma común y un sentido de identidad y cultura. (p. 71)

soil [suelo] s. la mezcla suelta de roca meteorizada, material orgánico, aire y agua que permiten el crecimiento de las plantas. (p. 45)

solar system [sistema solar] s. se compone del sol y nueve planetas conocidos, así como otros cuerpos celestes que gravitan alrededor del sol. (p. 27)

solstice [solsticio] s. cualquiera de dos épocas en el año cuando los rayos solares brillan directamente arriba al mediodía en los puntos más alejados al norte o al sur, y que marcan el comienzo del verano o el invierno; en el Hemisferio Norte, el solsticio de verano es el día más largo y el solsticio de invierno, el más corto. (p. 49)

South, the [sur, el] s. una región que cubre aproximadamente un cuarto de la superficie terrestre de los Estados Unidos y contiene más de un tercio de su población. (p. 148)

South Slav [eslavo del sur] s. una persona que emigró de Polonia y Rusia y se estableció en la Península Balcánica alrededor del año 500. (p. 319)

Spanish conquest [conquista española] s. la conquista de los pueblos indígenas americanos por los españoles. (p. 217)

sphere of influence [esfera de influencia] s. un método de dividir el control extranjero en China, después de que el país fuera obligado a firmar una serie de tratados otorgando privilegios especiales a los europeos. China fue dividida para el control por Gran Bretaña, Francia, Alemania y Rusia, entre otras potencias. (p. 636)

state [estado] s. término político para describir una unidad independiente que ocupa un territorio específico y tiene pleno control de sus asuntos internos y externos. (p. 83)

stateless nation [nación sin estado] s. un pueblo que no tiene un territorio que pueda ocupar legalmente, como los palestinos, los kurdos y los vascos. (p. 526)

stateless society [sociedad sin estado] s. una sociedad en la cual la gente usa linajes o familias cuyos miembros descienden de un antepasado común para gobernarse. (p. 443)

steppe [estepa] s. término usado para la región de praderas templadas en el Hemisferio Norte. (p. 66)

Stolen Generation [La Generación Robada] s. en Australia, término que utilizan los aborígenes actualmente para denominar a los 100.000 niños de raza mixta que fueron tomados por el gobierno y entregados a familias blancas para promover la asimilación. (p. 728)

storm surge [olas ciclónicas] s. altos niveles de agua producidos por un ciclón que inunda zonas de bajo nivel. (p. 562)

strategic commodity [recurso estratégico] s. un recurso tan importante que las naciones están dispuestas a ir a la guerra para asegurar el suministro continuo del mismo. (p. 529)

subcontinent [subcontinente] s. una masa de tierra similar a un continente, aunque de menor extensión, como Asia del Sur, denominada el subcontinente Indio. (p. 551)

subsistence activity [actividad de subsistencia] s. una actividad en la cual una familia produce únicamente los alimentos, la ropa y la vivienda que necesita. (p. 714)

suburb [suburbio] s. una unidad o comunidad política que linda con la ciudad central o con otros suburbios que lindan con la ciudad. (pp. 87, 138)

sultan [sultán] s. el gobernante de un país musulmán. (p. 585)

summer monsoon [monzón húmedo (verano)] s. la estación cuando los vientos soplan desde el sudoeste a través del Océano Índico hacia Asia del Sur, desde junio hasta septiembre, cuando los vientos producen fuertes tormentas y graves inundaciones. (p. 597)

Sunni [Suní] s. una de las dos principales ramas del Islam, la cual abarca cerca del 83 por ciento de todos los musulmanes, incluyendo los que viven en Turquía, Irak y Afganistán. (p. 517)

supra [supra] s. término georgiano (ruso) para designar una cena con muchos platos, brindis y discursos cortos. (p. 374)

sustainable community [comunidad sostenible] s. una comunidad cuyos residentes pueden vivir y trabajar en armonía con el medio ambiente. (p. 178)

sweatshop [fábrica explotadora] s. un lugar de trabajo donde se trabajan largas horas por salario bajo y en malas condiciones para enriquecer a los fabricantes. (p. 667)

T

taiga [taiga] s. una faja casi continua de bosques coníferos de hojas perennes, a través del Hemisferio Norte en América del Norte y Eurasia. (p. 351)

Taklimakan Desert [Takla-Makan] s. desierto ubicado en la región occidental de China entre las montañas de Tian Shan y Kunlún. (p. 627)

Taliban [Talibán] s. un grupo musulmán estricto en Afganistán que ha impuesto reglas muy rígidas en la sociedad, incluyendo estilos de vestuario para hombres y mujeres, restricciones en la apariencia de las mujeres en lugares públicos y reglamentos para la televisión, la música y los videos. (p. 519)

Tamil [Tamil] s. hindú dravídico que llegó a Sri Lanka en el s. IV y se estableció en el norte, mientras los sinhaleses se trasladaron más al sur. (p. 584)

Taoism [Taoísmo] s. filosofía basada en el libro Tao Te Ching y las enseñanzas de Lao-Tsé, que vivió en China en el siglo VI antes de nuestra era, quien creía en conservar y restaurar la armonía dentro del individuo, con la naturaleza y con el universo, con poca intervención del gobierno. (p. 638)

taro [taro] s. planta tropical de Asia con raíz a base de féculas, la cual se puede comer como un vegetal hervido o preparada como pan, budín o una pasta llamada "poi". (p. 715)

tectonic plate [placa tectónica] s. una enorme plataforma móvil que forma la corteza de la Tierra. (p. 37)

Tenochtitlan [Tenochtitlán] s. la antigua capital de los aztecas, donde se encuentra la Ciudad de México en la actualidad. (p. 217)

terpen [terpén] s. plataformas altas de tierra de barro usadas en trabajos de mar. (p. 283)

terraced farming [cultivo en andenes] s. una técnica antigua para cultivar la tierra en laderas o pendientes de montañas, utilizando campos horizontales a manera de peldaños, cortados en las pendientes. (p. 211)

terrorism (terrorismo) s. uso ilegal o amenazante de la fuerza, o violencia, contra individuos o propiedades, con el propósito de intimidar o causar temor con fines políticos o sociales. (p. 173)

theocratic [teocrático] adj. una forma de gobierno en la cual líderes religiosos controlan el gobierno con leyes religiosas y consultando con eruditos religiosos. (p. 504)

Three Gorges Dam [Presa de las Tres Gargantas] s. una presa que se comenzó a construir a finales del siglo. XX en Chang Jiang, China, para ayudar a controlar las inundaciones, generar energía y permitir que los barcos naveguen más hacia el interior de China. (p. 628)

- Three Kingdoms** [Los Tres Reinos] s. los reinos formados en la península de Corea por el año 300 de nuestra era: Koguryo en el norte, Paikche en el sudoeste y Silla en el sudeste. (p. 647)
- Tigris River** [Río Tigris] s. uno de los ríos más importantes del Sudoeste Asiático; sirvió de base a varias civilizaciones antiguas en el valle del río y fluye por partes de Turquía, Siria e Irak. (p. 489)
- tornado** [tornado] s. una poderosa columna de aire en espiral en forma de túnel. (p. 51)
- topographic map** [mapa topográfico] s. un mapa para referencia general; representación de características terrestres, naturales y hechas por el hombre. (p. 11)
- topography** [topografía] s. las características combinadas de formas fisiográficas y su distribución en una región. (p. 36)
- Transcaucasia** [Transcaucasia] s. una región compuesta por las repúblicas de Armenia, Azerbaijón y Georgia; situada entre el Cáucaso y las fronteras de Turquía e Irán. (p. 346)
- Trans-Siberian Railroad** [Ferrocarril Transiberiano] s. un ferrocarril que uniría Moscú con el Puerto de Vladivostok en el Pacífico; construido entre 1891 y 1903. (p. 355)
- Treaty of Tordesillas** [Tratado de Tordesillas] s. un tratado entre España y Portugal firmado en 1494, por el cual Portugal obtuvo el control de la tierra que hoy constituye el Brasil. (p. 236)
- Treaty of Waitangi** [Tratado de Waitangi] s. tratado firmado por los británicos y los maorís en 1840, por el cual Gran Bretaña obtuvo el control de Nueva Zelanda. (p. 719)
- tsunami** [tsunami] s. una ola oceánica gigantesca, producida por un terremoto o erupción volcánica subacuática, con gran poder de destrucción. (pp. 40, 662)
- tuberculosis** [tuberculosis] s. una infección respiratoria propagada a través del contacto humano, que con frecuencia acompaña al SIDA. (p. 466)
- tundra** [tundra] s. las tierras planas sin árboles que forman un aro alrededor del Océano Ártico; la región climática del Océano Ártico. (p. 63)
- typhoon** [tifón] s. una tormenta tropical, como un huracán, que se da en la región occidental del Pacífico. (pp. 51, 625)

U

- USSR** [URSS] s. la Unión de Repúblicas Socialistas Soviéticas o Unión Soviética, formada en 1922 por los comunistas y disuelta oficialmente en 1991. (p. 363)
- UNICEF (United Nations Children's Fund)** [UNICEF (Fondo de las Naciones Unidas para la Infancia)] s. organización internacional de vigilancia y ayuda para los niños. (p. 665)
- United Provinces of Central America** [Provincias Unidas de Centroamérica] s. nombre de Centroamérica después de que la región declaró su independencia de México en 1823. (p. 223)
- upland** [tierras altas] s. una colina o una montaña muy baja que también puede contener mesas y planicies altas. (p. 275)
- Ural Mountains** [Montes Urales] s. la cordillera que separa las planicies del norte de Europa y Siberia Occidental y utilizada como la línea divisoria entre Europa y Asia. (p. 346)
- urban geography** [geografía urbana] s. el estudio de cómo las personas utilizan el espacio en las ciudades. (p. 87)
- urbanization** [urbanización] s. el dramático aumento en el número de ciudades y los cambios en estilos de vida que resultan del mismo. (p. 88)
- urban sprawl** [expansión urbana descontrolada] s. desarrollo mal planificado que extiende la población de una ciudad por una zona geográfica cada vez más amplia. (p. 176)

V

- Vietnam War** [Guerra de Vietnam] s. (1954-1975) el conflicto militar producido por la intervención de Estados Unidos en Vietnam del Sur para evitar su apoderamiento por los comunistas de Vietnam del Norte. (p. 707)

- volcano** [volcán] s. un evento natural, formado cuando magma, gases y agua de la parte inferior de la corteza o capa se acumulan en cámaras subterráneas y posteriormente hacen erupción y surgen por grietas en la superficie terrestre. (p. 40)
- voyaging canoe** [canoas viajeras] s. una embarcación grande construida por habitantes de las islas del Pacífico para navegar por el océano. (p. 699)

W

- wadi** [wadi] s. lecho de un río que permanece seco excepto durante la estación lluviosa. (p. 488)
- water table** [nivel hidrostático] s. el nivel en el cual las rocas se saturan. (p. 33)
- weather** [clima] s. las condiciones atmosféricas en un lugar y tiempo específicos. (p. 50)
- weathering** [meteorización] s. proceso químico y físico que cambia las características de las rocas en o cerca de la superficie terrestre, lo cual ocurre lentamente durante el lapso de muchos años. (p. 42)
- West** [Oeste] s. región de América del Norte compuesta por 13 estados, que se extiende desde las Grandes Llanuras hasta el Océano Pacífico e incluye Alaska por el norte y Hawaii en el Pacífico. (p. 148)
- West Bank** [Cisjordania] s. en Israel, una franja de tierra en el lado oeste del Río Jordán, originalmente controlada por Jordania, que forma parte de la tierra destinada para los árabes palestinos. (p. 527)
- Western Wall** [El Muro de los Lamentos] s. para los judíos, el sitio más sagrado de Jerusalén; lo único que queda del Segundo Templo, construido en 538 antes de nuestra era y destruido en el 70 de nuestra era por los romanos. (p. 510)
- Wik Case** [el caso Wik] s. en Australia, los tribunales dispusieron en este caso que los aborígenes pueden reclamar tierras retenidas bajo arrendamiento pastoral. (p. 729)
- winter monsoon** [monzón seco (invierno)] s. la estación cuando los vientos secos soplan desde el noreste a través de los montes Himalaya hacia el mar desde octubre hasta febrero, algunas veces causando sequías. (p. 597)

X

- Xi Jiang** [Xi Jiang] s. llamado también el Río del Oeste; río que fluye hacia el este a través del sudeste de China y se une con el Río Perla (Zhu Jiang) para desembocar en el Mar del Sur de la China, formando un estuario entre Hong Kong y Macao. (p. 621)

Y

- yurt** [yurt] s. una tienda de nómadas del Asia Central. (p. 379)

Z

- Zionism** [sionismo] s. movimiento iniciado en el siglo. XIX para crear y apoyar una patria judía en Palestina. (p. 51)
- Zuider Zee** [Zuiderzee] s. antiguo lago interior de los Países Bajos en el Mar del Norte. (p. 283)

The U.S. Geological Survey (USGS) is the primary source for latitudes and longitudes. USGS reports these figures for any geographic feature (or political division) as averages of all the values within that feature. These averages help to locate on a map such large or extended features as continents, seas, rivers, or mountain ranges. However, one must look at a map to learn the overall shape, size, and extent of any geographic feature.

Abkhazia (43°00'N/41°00'E) A republic in northwestern Georgia in Transcaucasia, 386, *m385*

Abu Dhabi (24°28'N/54°22'E) The capital of United Arab Emirates, 484

Abuja (9°05'N/7°32'E) The capital of Nigeria, 412

Accra (5°33'N/0°13'W) The capital of Ghana, 410

Addis Ababa (9°02'N/38°42'E) The capital of Ethiopia, 433

Adriatic Sea (43°30'N/14°27'E) An arm of the Mediterranean Sea, bounded by Italy, Croatia, Yugoslavia, and Albania, 281

Afghanistan (33°00'N/65°00'E) A country in the northeast region of Southwest Asia, 516

Africa (10°00'N/22°00'E) The second largest continent; bounded by the Mediterranean Sea, the Indian Ocean, the Red Sea, and the Atlantic Ocean, 28, *m29*

Ahmadabad (23°04'N/72°38'E) A city in western India, 570, *m569*

Al Jawlan (also called the Golan Heights) (33°00'N/35°45'E) A hilly plateau in Syria overlooking the Jordan River and the Sea of Galilee, 487

Alabama (32°45'N/86°45'W) A state in the southern United States, 108

Alaska (64°00'N/150°00'W) A U.S. state that is northwest of Canada, 148

Albania (41°00'N/20°00'E) A country in Eastern Europe, 308

Albany (42°40'N/73°48'W) The capital of New York, 110

Alberta (55°00'N/115°00'W) A Prairie Province of Canada, 168

Aleutian Islands (52°06'N/173°30'W) Rugged, treeless islands that extend in an arc off the coast of Alaska, 121

Algeria (28°00'N/3°00'E) A country in North Africa, 438

Algiers (36°46'N/3°03'E) The capital of Algeria, 408

Alps (46°25'N/10°00'E) A European mountain range that arcs across France, Italy, Germany, Switzerland, Austria, and into the Balkan Peninsula, 272, *m271*

Altai Mountains (48°00'N/90°00'E) A mountain system in Central Asia, 346

Amazon rain forest A large, tropical forest located in north-central South America, 208

Amazon River (0°10'S/49°00'W) The world's second longest river; flows from northern Peru across northern Brazil to the Atlantic Ocean, 203, *m203*

American Samoa (14°21'S/170°31'W) A U.S. territory in the Pacific made up of the eastern islands of the Samoan archipelago, 112

Amman (31°57'N/35°56'E) The capital of Jordan, 484

Amsterdam (52°21'N/4°55'E) The capital of the Netherlands, 268

Amu Darya (43°40'N/59°01'E) A river that flows from the Pamir Mountains across south Central Asia to the southern Aral Sea, 347

An-Nafud (28°30'N/40°30'E) A desert in the northern part of the Arabian Peninsula, 492

Anatolia (39°00'N/35°00'E) A peninsula in northwestern Southwest Asia occupied by Turkey, 487, *m488*

Andes (20°00'S/67°00'W) A mountain range that runs down the Pacific coast of South America, 201, *m203*

Andorra (42°30'N/1°30'E) A tiny country between France and Spain in the Pyrenees, 266

Andorra la Vella (42°33'N/1°26'E) The capital of Andorra, 266

Angola (12°30'S/18°30'E) A country in Southern Africa, 453, *m454*

Ankara (39°56'N/32°52'E) The capital of Turkey, 484

Annamese Cordillera (17°00'N/106°00'E) A mountain range in Southeast Asia, 689, *m689*

Annapolis (38°59'N/76°30'W) The capital of Maryland, 110

Antananarivo (18°55'S/47°31'E) The capital of Madagascar, 410

Antarctica (90°00'S) A continent located mostly south of the Antarctic Circle; bounded by the Atlantic, Pacific, and Indian oceans, 28, *m29*

Antigua and Barbuda (17°03'N/61°48'W) A country that consists of islands in the eastern Caribbean Sea, 196

Apennines (43°00'N/13°00'E) A European mountain range that runs down the center of Italy, dividing the Italian Peninsula from east to west, 272

Apia (13°50'S/171°44'W) The capital of Samoa, 684

Appalachian Mountains (40°00'N/78°00'W) A North American mountain chain that runs north to south about 1,600 miles from Newfoundland to Alabama, *m1718*, 119

Arabian Peninsula (25°00'N/45°00'E) A peninsula separated from the continent of Africa by the Red Sea on the southwest and separated from Iran by the Persian Gulf on the east, 487

Arabian Sea (20°00'N/65°00'E) The northwest area of the Indian Ocean; lies between the Arabian Peninsula and western India, 488

Aral Sea (45°00'N/60°00'E) An inland sea in Central Asia, 348

Ararat, Mount (39°40'N/44°24'E) A mountain in Turkey, 478

Arctic Ocean (66°40'N/167°55'W) The world's smallest ocean; surrounds the North Pole between North America and Eurasia, 32

Argentina (34°00'S/64°00'W) A country in southern South America, 230, *m234*

Arizona (34°30'N/111°30'W) A state in the western United States, 108

Arkansas (34°45'N/92°30'W) A state in the southern United States, 148

Armenia (40°00'N/45°00'E) A country in Transcaucasia, 370, *m370*

Ashgabat (37°57'N/58°23'E) The capital of Turkmenistan, 342

Asia The largest continent; bounded by the Pacific Ocean, Europe, the Arctic Ocean, and the Indian Ocean, 28, *m29*

Asmara (15°20'N/38°56'E) The capital of Eritrea, 408

Astana (51°11'N/71°26'E) The capital of Kazakhstan, 342

Asunción (25°16'S/57°40'W) The capital of Paraguay, 198

Aswan High Dam (23°57'N/32°52'E) A dam on the Nile River in southern Egypt, 426, *m427*

Atacama Desert (24°30'S/69°15'W) An arid region in northern Chile, 209

- Athens** (37°45'N/23°30'E) The capital of Greece, 266
- Atlanta** (33°45'N/84°23'W) The capital of Georgia, 148
- Atlantic Coastal Plain** (35°00'W/79°00'W) A flat plain that begins as narrow lowland in the northeastern United States and widens as it extends southward, along the Atlantic coast, into Florida, *m118*, 119
- Atlantic Ocean** (10°00'N/25°00'W) The world's second largest ocean; extends from the Arctic to Antarctica and from the eastern Americas to western Europe and Africa, 32
- Atlantic Provinces** An area of eastern Canada that includes Prince Edward Island, New Brunswick, Nova Scotia, and Newfoundland, 166
- Atlas Mountains** (32°00'N/2°00'W) A mountain range in North Africa, 423
- Augusta** (44°20'N/69°44'W) The capital of Maine, 110
- Austin** (30°16'N/97°45'W) The capital of Texas, 112
- Australia** (25°00'S/135°00'E) The smallest continent; southeast of Asia, bounded by the Pacific and Indian oceans, and occupied by the country of Australia 28, *m29*
- Austria** (47°20'N/13°20'E) A country in Western Europe, 294
- Azerbaijan** (40°30'N/47°30'E) A country in Transcaucasia, 370, *m370*
- Baffin** (68°30'N/70°00'W) A large island in northern Canada, 121
- Baghdad** (33°20'N/44°24'E) The capital of Iraq, 484
- Bahamas** (24°00'N/76°00'W) A country that consists of a group of islands in the Atlantic Ocean near southeastern Florida, 203
- Bahrain** (26°00'N/50°30'E) A country in the Arabian Peninsula of Southwest Asia, 503
- Baikal, Lake** (54°00'N/109°00'E) The deepest lake in the world; located in south-central Russia, 348
- Bairiki** (1°19'N/172°58'E) The capital of Kiribati, 684
- Baku** (40°22'N/49°54'E) The capital of Azerbaijan, 371
- Balkan Mountains** (43°15'N/25°00'E) A European mountain range that blocks the Balkan Peninsula from the rest of Europe, 272
- Balkan Peninsula** (44°00'N/23°00'E) A southeastern peninsula of Europe; bounded by the Adriatic and Aegean Seas and occupied by numerous countries, *m271*, 272
- Baltic States** An area between Russia and the Baltic Sea that consists of Latvia, Lithuania, and Estonia, 361
- Baltic Sea** (56°00'N/18°00'E) An arm of the Atlantic Ocean bounded by Finland, Sweden, Denmark, Germany, Poland, Russia, Lithuanian, Latvia, and Estonia, 271, *m271*
- Bamako** (12°39'N/8°00'W) The capital of Mali, 410
- Bandar Seri Begawan** The capital of Brunei, 684
- Bandung** (6°56'S/107°35'E) A city in Indonesia, 732
- Bangkok** (13°45'N/100°31'E) The capital of Thailand, 686
- Bangladesh** (24°00'N/90°00'E) A country in South Asia, 573
- Bangui** (4°22'N/18°35'E) The capital of Central African Republic, 408
- Banjul** (13°27'N/16°35'W) The capital of Gambia, 410
- Barbados** (13°10'N/59°32'W) An island country in the eastern Lesser Antilles in the Atlantic Ocean, 196
- Basseterre** (17°18'N/62°43'W) The capital of Saint Kitts and Nevis, 198
- Baton Rouge** (30°27'N/91°09'W) The capital of Louisiana, 108
- Bay of Bengal** (15°00'N/90°00'E) An arm of the Indian Ocean that lies between eastern India and Southeast Asia, 552, *m554*
- Beijing** (39°56'N/116°23'E) The capital of China, 637
- Beirut** (33°52'N/35°31'E) The capital of Lebanon, 484
- Belarus** (53°00'N/28°00'E) A country that is west of Russia, 361
- Belgium** (50°50'N/4°00'E) A country in Western Europe, 294
- Belgrade** (44°49'N/20°28'E) The capital of Yugoslavia, 268
- Belize** (17°15'N/88°45'W) A country in Central America, 223
- Belmopan** (17°15'N/88°46'W) The capital of Belize, 196
- Benelux** The Western European countries of Belgium, the Netherlands, and Luxembourg, 294
- Benin** (9°30'N/2°15'E) A country in West Africa, 442
- Berlin** (52°31'N/13°24'E) The capital of Germany, 266
- Bern** (46°55'N/7°28'E) The capital of Switzerland, 268
- Bhutan** (27°30'N/90°30'E) A country in South Asia, 580
- Bikini** (11°35'N/165°23'E) A coral island of the Marshall Islands, 700
- Bishkek** (42°54'N/74°36'E) The capital of Kyrgyzstan, 342
- Bismarck** (46°48'N/100°46'W) The capital of North Dakota, 110
- Bissau** (11°51'N/15°35'W) The capital of Guinea-Bissau, 410
- Black Sea** (43°00'N/35°00'E) A sea situated between northern Turkey and southwestern Russia, 488, *m488*
- Blanc, Mont** (45°55'N/6°55'E) A mountain on the border of France and Italy, 260
- Blue Ridge Mountains** (35°30'N/82°50'W) A North American mountain range located in the southern part of the Appalachian system, 119
- Bogotá** (4°36'N/74°05'W) The capital of Columbia, 211
- Boise** (43°38'N/116°11'W) The capital of Idaho, 108
- Bolivia** (17°00'S/65°00'W) A country in central South America, 230, *m234*
- Bombay** (also called Mumbai) (18°59'N/72°50'W) A city in western India, *m569*, 570
- Bosnia and Herzegovina** (44°15'N/17°50'E) A country in Eastern Europe, 308
- Bosporus Strait** (41°00'N/29°00'E) A narrow waterway in northwest Turkey that connects the Black Sea and the Sea of Marmara, 488
- Boston** (42°18'N/71°05'W) A seaport city and capital of Massachusetts, 137, *m145*
- Botswana** (22°00'S/24°00'E) A country in Southern Africa, 453, *m454*
- Brahmaputra River** (24°02'N/90°59'E) A river starting in China that flows east, then west and south through Bangladesh where it joins the Ganges River; together they form a huge delta before entering the Bay of Bengal, 553
- Brasilia** (15°47'S/47°55'W) The capital of Brazil, 239
- Bratislava** (48°09'N/17°07'E) The capital of Slovakia, 268
- Brazil** (10°00'S/55°00'W) A country in central South America, 236
- Brazilian Highlands** (18°00'S/47°00'W) A mountainous area in southeastern Brazil, 202, *m203*
- Brazzaville** (4°16'S/15°17'E) The capital of Republic of Congo, 408
- Bridgetown** (13°06'N/59°37'W) The capital of Barbados, 196
- British Columbia** (55°00'N/125°00'W) The Pacific Province of western Canada, 169
- Brunei** (4°30'N/114°40'E) A Southeast Asian country on the island of Borneo, 705
- Brussels** (50°50'N/4°20'E) The capital of Belgium, 266

- Bucharest** (44°26'N/26°06'E) The capital of Romania, 268
- Budapest** (47°30'N/19°05'E) The capital of Hungary, 266
- Buenos Aires** (34°35'S/58°40'W) The capital of Argentina, 211
- Bujumbura** (3°23'S/29°22'E) The capital of Burundi, 408
- Bulgaria** (43°00'N/25°00'E) A country in Eastern Europe, 308
- Burkina Faso** (13°00'N/2°00'W) A country in West Africa, 442
- Burundi** (3°00'S/29°30'E) A country in East Africa, 431
- Cairo** (30°03'N/31°15'E) The capital of Egypt, 408
- California** (37°15'N/119°45'W) A state in the western United States, 149
- Cambodia** (13°00'N/105°00'E) A country in Southeast Asia, 705
- Cameroon** (6°00'N/12°00'E) A country in Central Africa, 448, *m450*
- Cameroon, Mount** (4°12'N/9°11'E) A mountain in Cameroon, 417
- Canada** (60°00'N/96°00'W) A country in northern North America that consists of ten provinces and three territories, 117
- Canadian Shield** (55°00'N/90°00'W) A rocky, flat region that encircles Hudson Bay, *m118*, 119
- Canberra** (35°17'S/149°13'E) The capital of Australia, 684
- Cape Verde** (16°00'N/24°00'W) A country formed by a group of islands in West Africa, 442
- Caracas** (10°30'N/66°55'W) The capital of Venezuela, 198
- Caribbean Islands** Three major groups of islands: the Bahamas (in the Atlantic Ocean near southeastern Florida) and the Greater Antilles and the Lesser Antilles (in the Caribbean Sea), 203
- Caribbean Sea** (15°00'N/75°00'W) A body of water bounded by South America, Central America, the Gulf of Mexico, and the Greater Antilles, 191
- Carson City** (39°10'N/119°43'W) The capital of Nevada, 110
- Carthage** (36°51'N/10°20'E) A city located in northeastern Tunisia; in ancient times, the center of the Carthaginian Empire, 438
- Cascade Range** (44°43'N/122°03'W) A North American mountain range that runs parallel to the Pacific coastline from California to British Columbia, Canada, 120
- Caspian Sea** (42°00'N/50°00'E) A lake that lies between southeast Europe and western Asia, 348
- Castries** (14°00'N/61°00'W) The capital of Saint Lucia, 198
- Catskill Mountains** (42°15'N/74°15'W) A North American mountain range located in the northern part of the Appalachian system, 119
- Caucasus** (42°00'N/45°00'E) A region that includes the Caucasus Mountains, which stretch between the Black and Caspian seas, 385, *m385*
- Caucasus Mountains** (42°30'N/45°00'E) A mountain range that stretches across the isthmus that separates the Black and Caspian seas, 346
- Central Africa** A region of Africa that includes Cameroon, Central African Republic, Democratic Republic of the Congo, Republic of the Congo, Equatorial Guinea, Gabon, and São Tomé & Príncipe, 448, *m450*
- Central African Republic** (7°00'N/21°00'E) A country in Central Africa, 448, *m450*
- Central America** A Latin American subregion bounded by Mexico, the Caribbean Sea, the Pacific Ocean, and South America, 223
- Central Asia** A region that includes Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, 375
- Central Siberian Plateau** (66°00'N/106°00'E) A plateau in central Russia, 345
- Chad** (15°00'N/19°00'E) A country in West Africa, 442
- Chad, Lake** (13°20'N/14°00'E) A lake in western Chad; on the borders of Nigeria, Niger, and Chad, 425
- Chang Jiang** (also called Yangtze River) (31°47'N/121°08'E) The longest river in Asia; flows from Xizang (Tibet) across China to the East China Sea, *m620*, 621
- Charleston** (38°21'N/81°38'W) The capital of West Virginia, 112
- Charlotte Amalie** The capital of the U.S. Virgin Islands, 112
- Charlottetown** (46°14'N/63°08'W) The capital of Prince Edward Island, Canada, 114
- Chechnya** (43°18'N/45°42'E) A Russian republic in the Caucasus, 385, *m385*
- Chennai** (also called Madras) (13°05'N/80°17'E) A city in southern India, *m569*, 570
- Chernobyl** (51°16'N/30°14'E) A city in north-central Ukraine, 392
- Cheyenne** (41°08'N/104°49'W) The capital of Wyoming, 112
- Chicago** (41°50'N/87°41'W) Located in northeastern Illinois; the largest city in the Midwest, 137
- Chile** (30°00'S/71°00'W) A country that runs along the southern Pacific coast of South America, 230, *m234*
- China** (35°00'N/105°00'E) A country in East Asia, 635
- Chisinau** (47°00'N/28°51'E) The capital of Moldova, 342
- Chittagong** A city in Bangladesh, 573
- Chittagong Hills** (23°00'N/92°15'E) A hilly region in southeastern Bangladesh, 576
- Chota Nagpur Plateau** (23°00'N/85°00'E) A plateau in India that is northeast of the Deccan Plateau, 552
- Cincinnati** (39°09'N/84°31'W) A city in southwestern Ohio, 147
- Cleveland** (41°29'N/81°40'W) A city in northern Ohio, 137
- Colombo** (6°56'N/79°51'E) The capital of Sri Lanka, 585
- Colorado** (39°00'N/105°30'W) A state in the western United States, 108
- Colorado River** (31°54'N/114°57'W) A river that rises in the Rocky Mountains, flow through the southwestern United States, and empties into the Gulf of California in northwest Mexico, 149, *m149*
- Colombia** (4°00'N/72°00'W) A country in northern South America, 230, *m234*
- Columbia** (34°00'N/81°02'W) The capital of South Carolina, 112
- Columbus** (39°59'N/82°59'W) The capital of Ohio, 110
- Comoros** (12°10'S/44°15'E) A country formed by a group of islands in Southern Africa, 453, *m454*
- Conakry** (9°31'N/13°43'W) The capital of Guinea, 410
- Concord** (43°14'N/71°34'W) The capital of New Hampshire, 110
- Congo River** (6°04'S/12°24'E) A river in Central Africa that flows through the Democratic Republic of the Congo and empties into the Atlantic Ocean, 416
- Congo, Democratic Republic of the** (0°00'N/25°00'E) A country in Central Africa, 448, *m450*
- Congo, Republic of the** (1°00'S/15°00'E) A country in Central Africa, 408
- Connecticut** (41°40'N/72°40'W) A state in New England in the northeastern United States, 145
- Continental Divide** The line of highest points in the Rockies that marks the separation between rivers flowing eastward and westward, 120
- Copenhagen** (55°40'N/12°35'E) The capital of Denmark, 266

Core Provinces An area located in east central Canada that includes Quebec and Ontario, 167

Corsica (42°00'N/9°00'E) An French-owned island in the western Mediterranean Sea, 272

Costa Rica (10°00'N/84°00'W) A country in Central America, 223

Côte d'Ivoire (8°00'N/5°00'W) A country in West Africa, 442

Crete (35°15'N/24°45'E) A Greek-owned island in the eastern Mediterranean Sea, 272

Croatia (45°10'N/15°30'E) A country in Eastern Europe, 308

Cuba (21°30'N/80°00'W) An island country in the Caribbean Sea, 226

Cyprus (35°00'N/33°00'E) A Southwest Asian island country in the Mediterranean Sea, south of Turkey, 513

Czech Republic (49°45'N/15°00'E) A country in Eastern Europe, 308

Dagestan (43°00'N/47°00'E) A Russian republic in the Caucasus, 385, *m385*

Dakar (14°40'N/17°26'W) The capital of Senegal, 412

Dallas-Fort Worth A metropolitan area in east central Texas formed by the rapid growth of Dallas (32°47'N/96°48'W) and Ft. Worth (32°44'N/97°19'W), 148

Damascus (33°30'N/36°18'E) The capital of Syria, 484

Damavand, Mount (35°57'N/52°07'E) A mountain in Iran, 478

Danube River (45°20'N/29°40'E) A European river that flows from southwest Germany, across southeast Europe, and into the Black Sea, 273, *m273*

Dardenelles Strait A narrow waterway in northwest Turkey that joins the Sea of Marmara and the Aegean Sea, 488

Dasht-e Kavir Desert A salt flat desert in central Iran, 492

Dasht-e Lut Desert A salt flat desert in eastern Iran, 492

Dead Sea (31°30'N/35°30'E) A landlocked salt lake that lies between Israel and Jordan, 489

Deccan Plateau (14°00'N/77°00'E) A large plateau in central India, 552

Delaware (39°00'N/75°30'W) A state in the southern United States (sometimes included with the Middle Atlantic states), 108

Denali (also called Mount McKinley) (63°04'N/151°00'W) North America's highest mountain; located in Alaska, 120

Denmark (56°00'N/10°00'E) A Northern European country located on the Jutland Peninsula, 300

Denver (39°44'N/104°59'W) The capital of Colorado, 108

Des Moines (41°36'N/93°37'W) The capital of Iowa, 108

Detroit (42°20'N/83°03'W) A city in southeastern Michigan, 137

Dhaka (23°43'N/90°25'E) The capital of Bangladesh, 548

District of Columbia (38°54'N/77°02'W) A federal district in the eastern United States; occupied by the city of Washington, 108

Djibouti (11°30'N/42°30'E) A country in East Africa, 463

Djibouti, the city of (11°36'N/43°09'E) The capital of Djibouti, 408

Dnieper River (46°30'N/32°18'E) A river that flows from west-central Russia through Belarus and Ukraine to the Black Sea, 361

Dodoma (6°10'S/35°45'E) The capital of Tanzania, 412

Doha (25°17'N/51°32'E) The capital of Qatar, 484

Dom (46°06'N/7°51'E) A mountain in Switzerland, 260

Dominica (15°30'N/61°20'W) An island country in the eastern Caribbean Sea, 196

Dominican Republic (19°00'N/70°40'W) A country that occupies the eastern two-thirds of the island of Hispaniola in the Caribbean Sea, 196

Dover (39°09'N/75°31'W) The capital of Delaware, 108

Dublin (53°20'N/6°15'W) The capital of Ireland, 266

Durham (36°00'N/78°54'W) A city in North Carolina, 178

Dushanbe (38°34'N/68°46'E) The capital of Tajikistan, 342

East Africa A region in Africa that includes Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Seychelles, Somalia, Tanzania, and Uganda, 431

East Antarctica (80°00'S/80°00'E) A major region in Antarctica lying on the Indian Ocean side of the Transantarctic Mountains, 692

East Asia A region that includes China, Japan, Mongolia, Taiwan, North Korea, and South Korea, 619

Eastern Europe A region that includes Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Hungary, Macedonia, Poland, Romania, Slovakia, and Yugoslavia, 308

Eastern Ghats (14°00'N/78°50'E) A mountain range that runs along the east coast of India, 552

Eastern Mediterranean Region A region that includes Lebanon, Syria, Jordan, and Israel, 510

Ecuador (2°00'S/77°30'W) A country in northwestern South America, 230, *m234*

Edinburgh (55°57'N/3°12'W) A city in Scotland, 303

Edmonton (53°33'N/113°30'W) The capital of Alberta, Canada, 114

Egypt (27°00'N/30°00'E) A country in North Africa, 438

El Salvador (13°50'N/88°55'W) A country in Central America, 223

Elbe River (53°50'N/9°00'E) A European river that runs north from the Czech Republic, across Germany, and into the North Sea, 260

Elburz Mountains (36°00'N/53°00'E) A mountain range in northern Iran, 488

Ellesmere (79°00'N/82°00'W) A large island in northern Canada, 121

Equatorial Guinea (2°00'N/10°00'E) A country in Central Africa, 448, *m450*

Erie Canal Opened in 1825; crosses upstate New York and is used as a water link between the Atlantic Ocean and the Great Lakes; now part of the New York State Barge Canal System, 129

Erie, Lake (42°15'N/81°25'W) One of the Great Lakes of North America, *m118*, 121

Eritrea (15°00'N/39°00'E) A country in East Africa, 431

Estonia (59°00'N/26°00'E) A country west of Russia; one of the Baltic Republics, 361

Ethiopia (8°00'N/38°00'E) A country in East Africa, 431

Ethiopian Highlands A mountainous area in Ethiopia, 417

Euphrates River (31°00'N/47°25'E) A river that rises in central Turkey, flows southeast through Syria and Iraq, and joins the Tigris River; together they form the Shatt al Arab, which flows into the Persian Gulf, *m488*, 489

Eurasia The combination of Europe and Asia; some consider it to be a single continent, 346

Europe A peninsula of the Eurasian land mass; a continent bounded by Asia, the Mediterranean Sea, the Atlantic Ocean, and the Arctic Ocean, 28, *m29*

Everest, Mount (27°59'N/86°56'E) The world's tallest mountain; located on the border of Nepal and China, 551

Everglades (26°05'N/80°46'W) A huge swampland in southern Florida that covers about 4,000 square miles, 126

Farakka dam (24°49'N/87°56'E) A dam that crosses the Ganges River at a point just before it enters Bangladesh, 599

Feni River (22°46'N/91°26'E) A river in Bangladesh, 562

Fiji (18°00'S/178°00'E) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

Finland (64°00'N/26°00'E) A country in Northern Europe, 300

Florence (43°46'N/11°15'E) A city in north-central Italy, 291

Florida (28°45'N/82°30'W) A state in the southern United States, 108

Fongafale (8°31'S/179°13'E) The capital of Tuvalu, 686

Foraker, Mount (62°58'N/151°24'E) A mountain in Alaska in the United States, 102

France (46°00'N/2°00'E) A country in Western Europe, 294

Frankfort (38°12'N/84°52'W) The capital of Kentucky, 108

Fredericton (45°57'N/66°38'W) The capital of New Brunswick, Canada, 114

Freetown (8°29'N/13°14'W) The capital of Sierra Leone, 412

French Guiana (4°20'N/53°00'W) A French overseas department in northern South America, 230, *m234*

Fuji, Mount (35°22'N/138°43'E) A volcanic mountain in Japan, 662

Gaborone (24°39'S/25°55'E) The capital of Botswana, 408

Gabon (1°00'S/11°45'E) A country in Central Africa, 448, *m450*

Galilee, Sea of (also called Lake Kinneret) (32°48'N/35°35'E) A freshwater lake in northeastern Israel, 495

Gambia (13°30'N/15°30'W) A country in West Africa, 442

Ganges River (23°22'N/90°32'E) A river that rises in the central Himalayas, flows eastward across northern India, and joins the Brahmaputra river; together they form a huge delta before entering the Bay of Bengal, 553

Ganges-Brahmaputra River delta (23°00'N/89°00'E) A triangular area of land formed by the mouth of the combined Ganges and Brahmaputra rivers, 553

Gaza Strip (31°25'N/34°20'E) A territory along the Mediterranean Sea just northeast of the Sinai Peninsula, 527

Georgetown (6°48'N/58°10'W) The capital of Guyana, 198

Georgia (42°00'N/43°30'E) A country in Transcaucasia, 370, *m370*

Georgia, the U.S. state of (32°45'N/83°30'W) A state in the southern United States, 108

Germany (51°30'N/10°30'E) A country in Western Europe, 294

Ghana (8°00'N/2°00'W) A country in West Africa, 442

Glasgow (55°50'N/4°15'W) A city in Scotland, 303

Gobi Desert (44°00'N/105°00'E) A large desert that stretches from northern China into Mongolia, 627

Godwin Austen, Mount (also called K2) (35°52'N/76°34'E) The world's second tallest mountain; located in northern Pakistan, 552

Golan Heights (also called Al Jawlan) (33°00'N/35°45'E) Located in Syria; a hilly plateau overlooking the Jordan River and the Sea of Galilee, 487

Gorée Island (14°40'N/17°24'W) An island off the coast of Senegal; served as one of the busiest departure points for slaves during the slave trade from the mid-1500s to the mid-1800s, 442

Granada (37°11'N/3°36'W) A city in southern Spain, 291

Great Barrier Reef (18°00'S/146°50'E) A chain of more than 2,500 reefs and islands; located off the northeast coast of Australia, 692

Great Britain (54°00'N/2°00'W) An island consisting of England, Scotland, and Wales and located north of France, 272

Great Dividing Range (25°00'S/147°00'E) A mountain range near the eastern coast of Australia, 692

Great Drakensberg An escarpment in Southern Africa, 417

Great Lakes (45°41'N/84°26'W) A chain of five large lakes—Huron, Ontario, Michigan, Erie, and Superior—located in central North America, *m118*, 121

Great Plains (39°25'N/101°18'W) A largely treeless area that extends from the Interior Plains to the Rocky Mountains, *m118*, 119

Great Smoky Mountains (35°35'N/83°31'W) A North American mountain range located in the southern part of the Appalachian system, 119

Greater Antilles (20°00'N/74°00'W) A group of islands in the Caribbean Sea; includes Cuba, Jamaica, Hispaniola, and Puerto Rico, 203

Greece (39°00'N/22°00'E) A Mediterranean country of Europe, 287

Green Mountains (42°34'N/72°36'W) A North American mountain range located in the northern part of the Appalachian system, 119

Greenland (72°00'N/40°00'W) The largest island in the world; bounded by the northern Atlantic Ocean and the Arctic Ocean and owned by Denmark, 272

Greenwich (51°28'N/0°00'E) A town in England and site of the Royal Observatory, through which the prime meridian, or longitude 0°, passes, 6

Grenada (12°07'N/61°40'W) A country consisting of the island of Grenada and the southern Grenadines in the Caribbean Sea, 196

Grozny (43°18'N/45°42'E) The capital of Chechnya, *m385*, 386

Guam (13°27'N/144°44'E) A U.S. territory and island in the Pacific, 112

Guangzhou (23°07'N/113°15'E) A city in China, 637

Guatemala (15°30'N/90°15'W) A country in Central America, 223

Guatemala City (14°38'N/90°31'W) The capital of Guatemala, 196

Guiana Highlands (4°00'N/60°00'W) A mountain range in northeast South America, 202, *m203*

Guinea (11°00'N/10°00'W) A country in West Africa, 442

Guinea-Bissau (12°00'N/15°00'W) A country in West Africa, 442

Gulf Coastal Plain A broad plain that stretches along the Gulf of Mexico from Florida into Texas, 119

Gulf of Mexico (26°00'N/91°00'W) An arm of the Atlantic Ocean bordering on eastern Mexico, the southeastern United States, and Cuba, *m118*, 121

Guyana (5°00'N/59°00'W) A country in northern South America, 230, *m234*

Hagatna (13°28'N/144°45'E) The capital of Guam, 112

Hainan (19°00'N/109°30'E) An island off the coast of southern China, *m620*, 621

Haiti (19°00'N/72°25'W) A country that occupies the western one-third of the island of Hispaniola in the Caribbean Sea, 198

Halabja (35°21'N/45°54'E) A city in Iraq, 516

Halifax (44°39'N/63°36'W) The capital of Nova Scotia, Canada, 166

Hangzhou (30°15'N/120°10'E) A city in China, 637

Hanoi (21°02'N/105°51'E) The capital of Vietnam, 686

Harare (17°50'S/31°03'E) The capital of Zimbabwe, 412

Harrisburg (40°16'N/76°53'W) The capital of Pennsylvania, 112

Hartford (41°46'N/72°41'W) The capital of Connecticut, 108

Havana (23°08'N/82°22'W) The capital of Cuba, 196

Hawaii (20°45'N/156°30'W) A state in the western United States that consists of several islands in the central Pacific, 108
Hawaiian Islands (20°45'N/156°30'W) A chain of islands in the central Pacific Ocean that make up the state of Hawaii, 121
Hejaz Mountains A mountain range on the southwest corner of the Arabian Peninsula; part of the western region of Saudi Arabia, 488

Helena (46°36'N/112°02'W) The capital of Montana, 110

Helsinki (60°11'N/24°56'E) The capital of Finland, 266

Hermon, Mount (33°25'N/35°51'E) A mountain on the border between Lebanon and Syria, 478

Himalaya Mountains (28°00'N/84°00'E) The world's highest mountain range; located in Nepal, Bhutan, northern India, and southwestern China, 551

Hindu Kush (35°00'N/71°00'E) A mountain range in eastern Afghanistan and northern Pakistan, 488

Holland (52°30'N/5°45'E) Another name for the Netherlands, a country in Northern Europe, 280

Hollywood (34°06'N/118°20'W) A district of Los Angeles, California; the center of the motion picture industry in the United States, 143

Honduras (15°00'N/86°30'W) A country in Central America, 223

Hong Kong (22°15'N/114°10'E) A region on the coast of southeastern China; includes Hong Kong Island and nearby areas, 621

Honiara (9°26'S/159°57'E) The capital of the Solomon Islands, 684

Honolulu (21°18'N/157°52'W) The capital of Hawaii, 108

Honshu (36°00'N/138°00'E) The largest island of Japan, 653

Houston (31°20'N/95°25'W) A city in southeastern Texas, 148

Huang He (also called Yellow River) (37°45'N/119°05'E) A Chinese river that rises in the Kunlun Mountains, flows east for about 3,000 miles, and empties into the Yellow Sea, *m620*, 621

Hudson Bay (52°52'N/102°25'W) An extended bay located in Canada, 119

Hungary (47°00'N/20°00'E) A country in Eastern Europe, 308

Huron, Lake (44°30'N/82°00'W) The second largest of the Great Lakes of North America, *m118*, 121

Iberian Peninsula (40°00'N/5°00'W) A southwestern peninsula of Europe bounded by France, the Mediterranean Sea, and the Atlantic Ocean and occupied by Spain and Portugal, *m271*, 272

Iceland (65°00'N/18°00'W) An island country in the North Atlantic, northwest of Great Britain, 300

Idaho (44°30'N/114°15'W) A state in the western United States, 108

Ijsselmeer (52°49'N/5°15'E) A freshwater lake in the Netherlands, 281

Illinois (40°00'N/89°15'W) A state in the Midwest of the United States, 108

India (20°00'N/77°00'E) A country in South Asia, 567

Indian Ocean (10°00'S/70°00'E) The world's third largest ocean; extends from southern Asia to Antarctica and from western Australia to eastern Africa, 32

Indiana (40°00'N/86°15'W) A state in the Midwest of the United States, 108

Indo-Gangetic Plain (also called the Northern Indian Plain) (27°00'N/80°00'E) A plain in northern India and Bangladesh that lies between the Deccan Plateau and the northern mountains, 552

Indochina A peninsula located south of China; includes Myanmar, Thailand, Laos, Cambodia, Vietnam, and West Malaysia, 689

Indonesia (5°00'S/120°00'E) A Southeast Asian country that consists of several islands between the Asian mainland and Australia, 705

Indus River (24°20'N/67°47'E) A river that flows west and then south through Pakistan to the Arabian Sea, 553

Indus Valley (29°00'N/71°00'E) A valley formed by the Indus River in Pakistan, 567

Ingushetia (43°13'N/44°47'E) A Russian republic in the Caucasus, 385, *m385*

Interior Plains A lowland area that extends from the Appalachians to about 300 miles west of the Mississippi River, *m118*, 119

Iowa (42°00'N/93°30'W) A state in the Midwest of the United States, 108

Iqaluit (63°44'N/68°30'W) The capital of Nunavut, Canada, 114

Iran (32°00'N/53°00'E) A country in the northeast region of Southwest Asia, 516, *m516*

Iraq (33°00'N/44°00'E) A country in the northeast region of Southwest Asia, 516, *m516*

Ireland (53°00'N/8°00'W) A country occupying most of the island of Ireland, which is west of Great Britain, 272

Islamabad (33°42'N/73°10'E) The capital of Pakistan, 548

Israel (31°30'N/34°45'E) A country in the Eastern Mediterranean in Southwest Asia, 512, *m512*

Issyk-Kul, Lake (42°25'N/77°15'E) A lake in Kyrgyzstan, 336

Italian Peninsula A southern peninsula of Europe bounded by the Mediterranean Sea, the Adriatic Sea, France, Switzerland, Austria, and Slovenia and occupied by Italy, *m271*, 272

Italy (42°50'N/12°50'E) A Mediterranean country of Europe, 266

Jackson (32°18'N/90°11'W) The capital of Mississippi, 110

Jaffna Peninsula (9°45'N/80°10'E) A peninsula on the northern tip of the island of Sri Lanka, 585

Jakarta (6°10'S/106°49'E) The capital of Indonesia, 684

Jamaica (18°15'N/77°30'W) An island country in the Caribbean Sea, 198

Jamestown (37°19'N/78°18'W) Founded in 1607; the first permanent English settlement in the United States, 136

Japan (36°00'N/138°00'E) An East Asian country consisting of several islands in the western Pacific Ocean, 651, *m652*

Jefferson City (38°35'N/92°10'W) The capital of Missouri, 110

Jerusalem (31°47'N/35°13'E) A holy city for Jews, Muslims, and Christians; also the capital of Israel, 510, *m512*

Johannesburg (26°12'S/28°05'E) The largest city in South Africa, 457

Jordan (31°00'N/36°00'E) A country in the Eastern Mediterranean in Southwest Asia, 511, *m512*

Jordan River A river that flows south from Syria through the Sea of Galilee to the Dead Sea, 489

Juneau (58°18'N/134°25'W) The capital of Alaska, 108

Jutland Peninsula A Northern European peninsula that consists of Denmark and northern Germany, 271, *m271*

K2 (also called Mount Godwin Austen) (35°52'N/76°34'E) The world's second tallest mountain; located in northern Pakistan, 552

Kabul (34°31'N/69°11'E) The capital of Afghanistan, 484

Kalahari (23°00'S/22°00'E) A desert in Southern Africa, 420

Kaliningrad (54°43'N/20°30'E) A city in western Russia, 345

Kamchatka (56°00'N/160°00'E) A peninsula of northeastern Russia bounded by Sea of Okhotsk and the Bering Sea, 346

Kampala (0°19'N/32°35'E) The capital of Uganda, 412

Kanchenjunga (27°42'N/88°08'E) A mountain on the border of India and Nepal, 542

Kansas (38°30'N/98°30'W) A state in the Midwest of the United States, 108

Kansas City (Kansas) (39°07'N/94°44'W) A city in northeastern Kansas, 147

Kansas City (Missouri) (39°05'N/94°35'W) A city in western Missouri, 147

Kara Kum (39°00'N/60°00'E) A large, black sand desert in Central Asia, 352

Karakoram Mountain Range (34°00'N/78°00'E) A mountain range in northern Pakistan, northern India, and southwestern China, 552

Karnataka Plateau A plateau in Karnataka, a state in southwestern India, 552

Kashmir A territory located at the foot of the Himalayas in northern Pakistan, northern India, and southwestern China, 600, *m601*

Kathmandu (27°43'N/85°19'E) The capital of Nepal, 581

Kathmandu Valley (27°40'N/85°21'E) A valley in Nepal, 582

Kazakhstan (48°00'N/68°00'E) A country in Central Asia, 375

Kentucky (37°30'N/85°15'W) A state in the southern United States, 108

Kenya (1°00'N/38°00'E) A country in East Africa, 431

Kenya, Mount (0°10'S/37°20'E) A volcanic mountain in East Africa, 417

Khartoum (15°45'N/32°30'E) The capital of Sudan, 425

Khyber Pass (34°04'N/71°13'E) A major land route through the Safed Koh Mountains, 552

Kiev (50°26'N/30°31'E) The capital of the Ukraine, 345

Kigali (1°57'S/30°04'E) The capital of Rwanda, 412

Kilimanjaro, Mount (3°04'S/37°22'E) Africa's highest peak; a volcanic mountain in Tanzania in East Africa, 417

Kingston (18°00'N/76°48'W) The capital of Jamaica, 198

Kingstown (13°08'N/61°13'W) The capital of Saint Vincent and the Grenadines, 198

Kinneret, Lake (also called the Sea of Galilee) (32°48'N/35°35'E) A freshwater lake in northeastern Israel, 495

Kinshasha (4°20'S/15°19'E) The capital of the Democratic Republic of the Congo, 408

Kiribati (5°00'S/170°00'W) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

Kjolen Mountains (65°00'N/14°00'E) An upland area of Scandinavia, 273

Kobe (34°41'N/135°10'E) A city in Japan, 661

Kolkata (Calcutta) (22°34'N/88°22'E) A city in eastern India, *m569*, 570, 599

Kongur, Mount (38°40'N/75°21'E) A mountain in China, 611

Korea Strait (34°00'N/129°00'E) A waterway between southern South Korea and southwestern Japan that connects the Sea of Japan with the East China Sea, 647

Korean Peninsula A peninsula bounded by the Yellow Sea and the Sea of Japan and occupied by North Korea and South Korea, 620

Koror (7°20'N/134°28'E) The capital of Palau, 684

Kosovo (42°35'N/21°00'E) A province of southern Yugoslavia, 319

Kuala Lumpur (3°10'N/101°42'E) The capital of Malaysia, 709

Kunlun Mountains (36°00'N/84°00'E) A mountain range in western China, 619, *m620*

Kuril Islands (46°10'N/152°00'E) A chain of Russian-owned islands that extend off the southern tip of Kamchatka Peninsula; Japan claims ownership of some of the islands, 346

Kuwait (29°30'N/47°45'E) A country in the Arabian Peninsula of Southwest Asia, 503

Kuwait City (29°22'N/47°59'E) The capital of Kuwait, 484

Kyoto (35°00'N/135°45'E) A city in Japan, 654

Kyrgyzstan (41°00'N/75°00'E) A country in Central Asia, 375

Kyzyl Kum (42°30'N/64°30'E) A large red sand desert in Central Asia, 352

La Paz (16°30'S/68°09'W) The administrative capital of Bolivia, 196

Labrador A section of Newfoundland, Canada, 167

Lansing (42°44'N/84°33'W) The capital of Michigan, 110

Laos (18°00'N/105°00'E) A country in Southeast Asia, 705

Las Vegas (36°11'N/115°08'W) A city in southern Nevada, 149, *m149*

Latin America A region that includes Mexico, Central America, the Caribbean, and South America, 201, *m203*

Latvia (57°00'N/25°00'E) A country west of Russia; one of the Baltic Republics, 361

Lebanon (33°50'N/35°50'E) A country in the Eastern Mediterranean in Southwest Asia, 511, *m512*

Leizhou Peninsula (20°40'N/110°05'E) A peninsula in southern China between the South China Sea and the Gulf of Tonkin, 620

Lena (72°20'N/126°37'E) A river that flows through east-central Russia and empties into the Laptev Sea, 347

Lesotho (29°30'S/28°15'E) A country in Southern Africa, 453, *m454*

Lesser Antilles (15°00'N/61°00'W) A group of islands southeast of Puerto Rico; divided into the Leeward Islands and Windward Islands, 203

Liberia (6°30'N/9°30'W) A country in West Africa, 442

Libreville (0°23'N/9°27'E) The capital of Gabon, 410

Libya (25°00'W/17°00'E) A country in North Africa, 438

Libyan Desert (24°00'N/25°00'E) A desert in northeast Africa; the northeast section of the Sahara, 420

Liechtenstein (47°10'N/9°32'E) A country in Western Europe, 294

Lilongwe (13°59'S/33°47'E) The capital of Malawi, 410

Lima (12°03'S/77°03'W) The capital of Peru, 211

Lincoln (40°48'N/96°40'W) The capital of Nebraska, 110

Lisbon (38°43'N/9°08'W) The capital of Portugal, 268

Lithuania (56°00'N/24°00'E) One of the Baltic Republics, 361

Little Rock (35°45'N/92°17'W) The capital of Arkansas, 108

Ljubljana (46°03'N/14°31'E) The capital of Slovenia, 268

Llanos (5°00'N/70°00'W) Vast plains located in Colombia and Venezuela, 202, *m203*

Logan, Mount (60°34'N/140°25'W) A mountain in Canada, 102

Lombardy (45°40'N/9°30'E) A region in northern Italy, 273

Lomè (6°08'N/1°13'E) The capital of Togo, 412

London (51°30'N/0°08'W) The capital of the United Kingdom, 304

Los Angeles (34°03'N/118°15'W) A major seaport city in southwestern California, 128, *m149*

Louisiana (31°00'N/92°00'W) A state in the southern United States, 148

Lowell (42°39'N/71°19'W) A city in Massachusetts that became a textile center by the 1840s, 136

Luanda (8°50'S/13°14'E) The capital of Angola, 408

Lusaka (15°25'S/28°17'E) The capital of Zambia, 412

Luxembourg (49°45'N/6°10'E) A country in Western Europe, 294

Luxembourg City (49°37'N/6°08'E) The capital of Luxembourg, 266

Macao Peninsula A peninsula in southeast China just west of Hong Kong, 620

Macedonia (41°50'N/22°00'E) A country in Eastern Europe, 308

MacKenzie River (69°20'N/134°00'W) The largest river in Canada; flows across the Northwest Territories to the Arctic Ocean, 121

Madagascar A country in Southern Africa, 453, *m454*

Madison (43°05'N/89°23'W) The capital of Wisconsin, 112

Madras (also called Chennai) (13°05'N/80°17'E) A city in southern India, *m569*, 570

Madrid (40°24'N/3°41'W) The capital of Spain, 268

Maine (45°30'N/69°15'W) A state in New England in the northeastern United States, 145

Majuro (7°06'S/171°23'E) The capital of the Marshall Islands, 684

Makalu (27°55'N/87°08'E) A mountain on the border of China and Nepal, 542

Malabo The capital of Equatorial Guinea, 408

Malawi (3°21'N/8°40'E) A country in Southern Africa, 453, *m454*

Malay Archipelago (0°00'N/120°00'E) An island group of Southeast Asia; separates the Pacific and Indian oceans and includes the Philippines, Malaysia, and the islands of Indonesia, 689

Malay Peninsula (6°00'N/102°00'E) A narrow strip of land about 700 miles long that stretches south from the Indochinese Peninsula and then curves southeast, 689

Malaysia (2°30'N/112°30'E) A Southeast Asian country that occupies part of the island of Borneo and the southern end of the Malay Peninsula, 705

Maldives (3°12'N/73°00'E) A South Asian country that occupies a chain of islands in the Indian Ocean off the southwest coast of India, 584

Male (4°10'N/73°30'E) The capital of the Maldives, 548

Mali (17°00'N/4°00'W) A country in West Africa, 442

Malta (35°55'N/14°26'E) An island country in the Mediterranean Sea, off the southern coast of Sicily, 268

Managua (12°09'N/86°25'W) The capital of Nicaragua, 198

Manama (26°14'N/50°35'E) The capital of Bahrain, 484

Manchurian Plain (44°00'N/124°00'E) A plain in northeastern China, 620, *m620*

Manila (14°35'N/121°00'E) The capital of the Philippines, 684

Manitoba (55°00'N/97°00'W) A Prairie Province of Canada, 168

Maputo (25°58'S/32°35'E) The capital of Mozambique, 410

Marrakesh (31°38'N/8°00'W) A city in Morocco, *m439*, 440

Marshall Islands (10°00'N/167°00'E) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

Maryland (39°00'N/76°45'W) A state in the southern United States (sometimes included with the Middle Atlantic states), 110

Maseru (29°19'S/27°29'E) The capital of Lesotho, 410

Massachusetts (42°15'N/71°30'W) A state in New England in the northeastern United States, 145

Massif Central Uplands located in central France, 273

Mauritania (20°00'N/12°00'W) A country in West Africa, 442

Mauritius (20°18'S/57°35'E) An island country in Southern Africa, 453, *m454*

Mbabane (26°19'S/31°08'E) The capital of Swaziland, 412

McKinley, Mount (also called Denali) (63°04'N/151°00'W) North America's highest mountain; located in Alaska, 120

Mecca (21°26'N/39°50'E) The holiest city of Islam; located in western Saudi Arabia, 503

Mediterranean Europe A region that includes Spain, Italy, and Greece, 287

Mediterranean Sea (35°00'N/20°00'E) An inland sea bounded by southern Europe, northern Africa, and southwestern Asia, 277

Mekong River (10°15'N/105°55'E) A river that begins in China and crosses several Southeast Asian nations before becoming a wide delta on Vietnam's coast, *m689*, 690

Melanesia (12°00'S/160°00'E) A region in southwestern Oceania that consists of numerous Pacific islands, 713, *m713*

Meseta (41°00'N/4°00'W) A central plateau of Spain, 273

Mexico (23°00'N/102°00'W) A Latin American country bounded by the United States, the Gulf of Mexico, the Pacific Ocean, and Central America, 217

Mexico City (19°26'N/99°08'W) The largest city in Latin America and the capital of Mexico, 211

Miami (25°46'N/80°12'W) A city in southern Florida, 148

Michigan (44°15'N/85°30'W) A state in the Midwest of the United States, 110

Michigan, Lake (43°20'N/87°10'W) The third largest of the Great Lakes of North America, *m118*, 121

Micronesia (9°00'N/155°00'E) A region in northwestern Oceania that consists of numerous Pacific islands, 713, *m713*

Micronesia, Federated States of (5°00'N/152°00'E) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

Mid-Atlantic Ridge (0°00'N/20°00'W) The mountain range on the ocean floor; extends for thousands of miles north to south through the middle of the Atlantic Ocean, 36

Middle Atlantic States The states of Pennsylvania, New York, and New Jersey (sometimes Maryland and Delaware are included in this group), 145

Midwest An area of the north-central United States that includes Michigan, Ohio, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, North Dakota, and South Dakota, 147

Milwaukee (43°04'N/87°58'W) A city in southeastern Wisconsin, 147

Minneapolis (44°58'N/93°16'W) A city in eastern Minnesota, 147

Minnesota (46°15'N/94°15'W) A state in the Midwest of the United States, 110

Minsk (53°54'N/27°34'E) The capital of Belarus, 342

Mississippi (32°45'N/89°45'W) A state in the southern United States, 110

Mississippi River (29°09'N/89°15'W) A North American river that runs from Minnesota to the Gulf of Mexico, *m118*, 121

Missouri (38°15'N/92°30'W) A state in the Midwest of the United States, 110

Missouri River (38°49'N/90°07'W) A North American river that runs from the Rocky Mountains in southwest Montana into the Mississippi River, *m118*, 121

Mogadishu (2°04'N/45°22'E) The capital of Somalia, 412

Mojave Desert (35°25'N/115°35'W) A desert in southern California, 124

Moldova (47°00'N/29°00'E) A country that lies between the Ukraine and Romania, 361

Monaco (43°44'N/7°24'E) A principality bounded by France and the Mediterranean Sea, 268

Monaco, the village of (43°44'N/7°25'E) The capital of Monaco, 268

Mongolia (46°00'N/105°00'E) A country in East Asia, 642

Mongolian Plateau A plateau in Mongolia and northeastern China, 620, *m620*

Monrovia (6°19'N/10°48'W) The capital of Liberia, 421

Montana (47°00'N/109°45'W) A state in the western United States, 110

Montevideo (34°51'S/56°10'W) The capital of Uruguay, 198

Montgomery (32°22'N/86°18'W) The capital of Alabama, 108

Montpelier (44°16'N/72°34'W) The capital of Vermont, 112

Montreal (45°30'N/73°35'W) Located in Quebec, Canada; the second largest metropolitan area in the country, 168

Morocco (32°00'N/5°00'W) A country in North Africa, 438

Moroni (11°42'S/43°14'E) The capital of Comoros, 408

Moscow (55°45'N/37°37'E) The capital of Russia, 366

Mozambique (18°15'S/35°00'E) A country in Southern Africa, 453, *m454*

Mumbai (also called Bombay) (18°59'N/72°50'W) A city in western India, *m569*, 570

Murray River (35°22'S/139°22'E) The largest river of Australia; flows into an arm of the Indian Ocean, 692

Muscat (23°37'N/58°36'E) The capital of Oman, 484

Myanmar (22°00'N/98°00'E) A country in Southeast Asia, 705

N'Djamena (12°07'N/15°03'E) The capital of Chad, 408

Nagorno-Karabakh (40°00'N/46°35'E) A mountainous republic of Azerbaijan, 386

Nagoya (35°10'N/136°55'E) A city in Japan, 630

Nairobi (1°17'S/36°49'E) The capital of Kenya, 410

Namib (23°00'S/15°00'E) A desert in southwest Africa, 420

Namibia (22°00'S/17°00'E) A country in Southern Africa, 453, *m454*

Nashville (36°10'N/86°47'W) The capital of Tennessee, 112

Nassau (25°05'N/77°21'W) The capital of the Bahamas, 196

Nasser, Lake (22°50'N/32°30'E) A lake created by the Aswan High Dam; lies in southern Egypt and northern Sudan, 426, *m427*

Nauru (0°32'S/166°55'E) An island country of Oceania in the Pacific Ocean, 712, *m713*

Nebraska (41°30'N/99°45'W) A state in the Midwest of the United States, 110

Negev (30°34'N/34°43'E) A desert area that occupies southern parts of Israel, 492

Nepal (28°00'N/84°00'E) A country in South Asia, 580

Netherlands (52°30'N/5°45'E) A country in Western Europe, 294

Nevada (39°15'N/116°45'W) A state in the western United States, 110

New Brunswick (46°30'N/66°45'W) An Atlantic Province of Canada, 166

New Caledonia (21°30'S/165°30'E) A French overseas territory that consists of an island group of Oceania in the Pacific Ocean, 691

New Delhi (28°36'N/77°12'E) The capital of India, 548

New England An area of the northeastern United States that includes Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, and Connecticut, 145

New Guinea (5°00'S/140°00'E) An island north of Australia; occupied by the countries of Indonesia (west half) and Papua New Guinea (east half), 679

New Hampshire (43°40'N/71°30'W) A state in New England in the northeastern United States, 145

New Jersey (40°10'N/74°30'W) A Middle Atlantic state of the eastern United States, 145

New Mexico (34°30'N/106°00'W) A state in the western United States, 110

New Orleans (29°58'N/90°04'W) A city in southeastern Louisiana, 148

New York (43°00'N/75°30'W) A Middle Atlantic state in the eastern United States, 145

New York City (40°41'N/73°59'W) A major seaport city located in southeastern New York State, *m145*, 147

New Zealand (42°00'S/174°00'E) A country that consists of several islands (including North Island and South Island) in the Pacific Ocean off the southeast coast of Australia; part of Oceania, 691

Newfoundland (52°00'N/56°00'W) An Atlantic Province of Canada, 166

Newfoundland Island (49°00'N/56°00'W) An island that makes up part of Newfoundland, Canada, 167

Niamey (13°31'N/2°07'E) The capital of Niger, 412

Nicaragua (13°00'N/85°00'W) A country in Central America, 223

Nicosia (35°10'N/33°22'E) The capital of Cyprus, 484

Niger (16°00'N/8°00'E) A country in West Africa, 442

Niger River (5°33'N/6°33'E) A river that begins in Guinea and flows toward the Sahara (northeast); it then cuts through Nigeria and empties into the Gulf of Guinea, 416

Niger River Delta (4°50'N/6°00'E) A triangular area of land formed by the mouth of the Niger River, 425

Nigeria (10°00'N/8°00'E) A country in West Africa, 442

Nile River Delta (31°00'N/31°00'E) A triangular area of land formed by the mouth of the Nile River, 416

Nile River (30°10'N/31°06'E) The world's longest river; flows through Uganda, Sudan, and Egypt and empties into the Mediterranean Sea, 416

Nordic countries The Northern European countries of Denmark, Finland, Iceland, Norway, and Sweden, 300

Norilsk (69°20'N/88°06'E) A Siberian mining center in Russia, 354

North Africa A region of Africa that includes Algeria, Egypt, Libya, Morocco, Sudan, and Tunisia, 438

North America The northern continent of the Western Hemisphere; bounded by the Arctic Ocean, the Atlantic Ocean, the Pacific Ocean, and the Caribbean Sea, 28, *m29*

North Carolina (35°30'N/80°00'W) A state in the southern United States, 110

North China Plain (34°00'N/116°00'E) A plain in northern China, 620, *m620*

North Dakota (47°30'N/100°00'W) A state in the Midwest of the United States, 110

North Island (37°20'S/173°30'E) The northern of the two main islands that make up New Zealand, 691

North Korea (40°00'N/127°00'E) A country in East Asia, 648, *m648*

North Ossetia (43°00'N/44°15'E) A Russian republic in the Caucasus, 385, *m385*

North Pole (90°00'N) The northern end of the earth's axis of rotation; a point located in the Arctic Ocean, 56

North Sea (55°20'N/3°00'E) An arm of the Atlantic Ocean bounded by Norway, Denmark, Germany, the Netherlands, England, and Scotland, 271, *m271*

Northeast Region of Southwest Asia A region that includes Turkey, Iran, Iraq, and Afghanistan, 516

Northern Europe A region that includes the United Kingdom, Ireland, Denmark, Finland, Iceland, Norway, and Sweden, 300

Northern European Plain A fertile plain that stretches across parts of France, Belgium, the Netherlands, Denmark, Germany, and Poland, 273

Northern Indian Plain (also called the Indo-Gangetic Plain) (27°00'N/80°00'E) A plain in northern India that lies between the Deccan Plateau and the northern mountains, 552

Northern Plains of Afghanistan A plain in northern Afghanistan, 488

Northwest Territories (65°00'N/118°00'W) A territory in north-central Canada, 169

Norway (62°00'N/10°00'E) A Northern European country that occupies the western part of the Scandinavian Peninsula, 300

Norwegian Sea (70°00'N/5°00'E) An extension of the Atlantic Ocean off the northwest coast of Norway, 271, *m271*

Nouakchott (18°06'N/15°57'W) The capital of Mauritania, 410

Nova Scotia (45°00'N/63°00'W) An Atlantic Province of Canada, 166

Nuku'alofa (21°08'S/125°12'W) The capital of Tonga, 686

Nunavut (70°00'N/90°00'W) A territory in north-central Canada; home to many of Canada's Inuit, 169

Ob River (66°45'N/69°30'E) A river in central Russia that flows into the Gulf of Ob, 347

Oceania A region that includes Australia, New Zealand, and the Pacific Islands (but not the Philippines, Indonesia, and other islands near Asia), 690

Ogallala Aquifer The largest aquifer in the United States; stretches from South Dakota to Texas, 33

Ohio (40°15'N/83°00'W) A state in the Midwest of the United States, 110

Ohio River (36°59'N/89°08'W) A North American river that runs from the Allegheny Mountains into the Mississippi River, *m118*, 121

Oklahoma (35°30'N/97°30'W) A state in the south-central United States, 110

Oklahoma City (35°28'N/97°31'W) The capital of Oklahoma, 110

Olduvai Gorge (2°58'S/35°22'E) A ravine in northern Tanzania that contains archeological sites rich in fossils, 431

Olympia (47°02'N/122°54'W) The capital of Washington, 112

Omaha (41°16'N/95°56'W) A city in eastern Nebraska, 147

Oman (21°00'N/57°00'E) A country in the Arabian Peninsula of Southwest Asia, 503

Ontario (50°00'N/86°00'W) A Core Province of Canada, 167

Ontario, Lake (43°40'N/78°00'W) The smallest of the Great Lakes of North America, *m118*, 121

Oregon (44°00'N/120°03'W) A state in the western United States, 148

Orinoco River (41°12'S/68°15'W) A river that flows through the northern part of South America, mainly in Venezuela, 202

Osaka (35°57'N/137°16'E) A city in Japan, 630

Oslo (59°55'N/10°45'E) The capital of Norway, 268

Ouagadougou (12°22'N/1°31'W) The capital of Burkina Faso, 408

outback The dry, interior region of Australia, 697

Pacific Ocean (0°00'N/180°00'E) The world's largest ocean; extends from the Arctic Circle and northeastern Asia to Antarctica and from the western Americas to eastern Asia and Australia, 32

Paektu, Mount (41°59'N/128°05'E) A mountain in Korea, 611

Pago Pago (14°17'S/170°42'W) The capital of American Samoa, 112

Pakistan (30°00'N/70°00'E) A country in South Asia, 573

Palau (7°30'N/134°27'E) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

Palestine (18°30'N/73°45'W) A historical region of Southwest Asia located between the Mediterranean Sea and the Jordan River, 511

Palikir (6°55'N/158°09'E) The capital of the Federated States of Micronesia, 684

pampas (35°00'S/63°00'W) Vast plains located in Uruguay and south-central Argentina, 202 *m203*

Panama (9°00'N/80°00'W) A country in Central America, 223

Panama Canal (9°20'N/79°55'W) A canal that cuts through Panama and connects the Caribbean Sea and Pacific Ocean, 226, *m226*

Panama City (8°58'N/79°32'W) The capital of Panama, 198

Papua New Guinea (6°00'S/147°00'E) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

Paraguay (22°60'S/57°60'W) A country in south-central South America, 230, *m234*

Paramaribo (5°52'N/55°10'W) The capital of Suriname, 198

Paraná River (33°43'S/59°15'W) A river that begins in the highlands of Brazil and runs south and west through Paraguay and Argentina. It then turns eastward and empties into the Atlantic, 203, *m203*

Paris (48°52'N/2°20'E) The capital of France, 266

Patagonia (44°00'S/68°00'W) A region of South America, mostly in Argentina, 209

Pearl River (also called Zhu Jiang) (22°46'N/113°38'E) A river in southeastern China that joins the Xi Jiang (or West River) and empties into the South China Sea, 622

Pennsylvania (40°45'N/77°45'W) A Middle Atlantic state of the eastern United States, 145

Persian Gulf (27°00'N/51°00'E) An extension of the Arabian Sea situated between the Arabian Peninsula and Iran, 487, *m488*

Peru (10°00'S/76°00'W) A country in western South America, 230, *m234*

Philadelphia (39°57'N/75°10'W) A city in southeastern Pennsylvania, 146, *m145*

Philippines, the (13°00'N/122°00'E) A Southeast Asian country that occupies about 7,100 islands east of the Asian mainland and northeast of Borneo, 712, *m713*

Phnom Penh (11°33'N/104°55'E) The capital of Cambodia, 684

Phoenix (33°27'N/112°4'W) The capital of Arizona, 149, *m149*

Pierre (44°22'N/100°21'W) The capital of South Dakota, 112

Pinatubo, Mount (15°08'N/120°21'E) A volcanic mountain in the Philippines, 689

Pittsburgh (40°26'N/79°60'W) A city in southwestern Pennsylvania, 137

- Plateau of Tibet** (33°00'N/92°00'E) A vast tableland in south-central Asia; mostly in Tibet, but extends into China, 619, *m620*
- Poland** (52°00'N/20°00'E) A country in Eastern Europe, 308
- Polynesia** (10°0'S/150°00'W) A region in central Oceania that consists of numerous Pacific islands, 713, *m713*
- Port Louis** (20°10'S/57°30'E) The capital of Mauritius, 410
- Port Moresby** (9°28'S/147°12'E) The capital of Papua New Guinea, 684
- Port-of-Spain** (10°39'N/61°31'W) The capital of Trinidad and Tobago, 198
- Port-au-Prince** (18°32'N/72°20'W) The capital of Haiti, 198
- Port-Vila** (17°44'S/168°19'E) The capital of Vanuatu, 686
- Porto-Novo** (6°29'N/2°37'E) The capital of Benin, 408
- Portugal** (39°04'N/8°14'W) A country located on the Iberian Peninsula; bounded by the Atlantic Ocean and Spain, 268
- Prague** (50°5'N/14°28'E) The capital of the Czech Republic, 312
- Praia** (14°55'N/23°31'W) The capital of Cape Verde Island, 408
- Prairie Provinces** An area located in west-central Canada that includes Manitoba, Saskatchewan, and Alberta, 168
- Pretoria** (25°42'S/28°14'E), **Capetown** (33°55'S/18°25'E), **Bloemfontein** (20°08'S/26°12'E) The capital towns of South Africa, 412
- Prince Edward Island** (46°20'N/63°30'W) An Atlantic Province of Canada, 166
- Providence** (41°49'N/71°25'W) The capital of Rhode Island, 112
- Puerto Rico** (18°15'N/66°30'W) An island in the Caribbean Sea that is a self-governing commonwealth in union with the United States, 112
- Puerto Vallarta** (20°37'N/105°15'W) A city in Mexico, 213
- Pyongyang** (39°1'N/125°45'E) The capital of North Korea, 616
- Pyrenees** (42°40'N/1°00'E) A European mountain range that forms a border between France and Spain, *m271*, 272
- Qatar** (25°30'/51°15'E) A country in the Arabian Peninsula of Southwest Asia, 503
- Qinling Shandi Mountains** (33°30'N/108°36'E) A mountain range that divides the northern part of China from the southern part, 619
- Quebec** (54°00'N/72°00'W) A Core Province of Canada, 167
- Quebec City** (46°49'N/71°15'W) The capital of Quebec, Canada, 167
- Quito** (0°13'S/78°30'W) The capital of Ecuador, 196
- Rabat** (34°02'N/6°50'W) The capital of Morocco, 410
- Raleigh** (35°46'N/78°38'W) The capital of North Carolina, 110
- Red Sea** (19°00'N/39°30'E) A long, narrow sea situated between northeast Africa and the Arabian Peninsula, 487, *m488*
- Regina** (50°27'N/104°37'W) The capital of Saskatchewan, Canada, 114
- Reykjavik** (64°09'N/21°57'W) The capital of Iceland, 266
- Rhine River** (51°58'N/4°05'E) A European river that flows from the interior of Europe north to the North Sea, 273, *m273*
- Rhode Island** (41°45'N/71°30'W) A state in New England in the northeastern United States, 145
- Richmond** (37°33'N/77°28'W) The capital of Virginia, 112
- Riga** (56°57'N/24°06'E) The capital of Latvia, 342
- Ring of Fire** A chain of volcanoes that line the Pacific Rim, *m37*, 41, 661, *m662*
- Rio de Janeiro** (22°54'S/43°14'W) A city in Brazil, 239
- Rio de la Plata** The name for the last stretch of the Paraná River before it empties into the Atlantic Ocean between Argentina and Uruguay, 203
- Rio Grande** (23°51'N/102°59'W) A river that forms part of the Mexican-U.S. border, 102
- Riyadh** (24°38'N/46°46'E) The capital of Saudi Arabia, 484
- Rocky Mountains** (43°22'N/110°55'W) A mountain system in the western United States and Canada that extends about 3,000 miles from the Arctic to the Mexican frontier, 119
- Romania** (46°00'N/25°00'E) A country in Eastern Europe, 308
- Rome** (41°54'N/12°29'E) The capital of Italy, 266
- Rosa, Monte** (45°55'N/7°53'E) A mountain on the border of Switzerland and Italy, 260
- Roseau** (15°18'N/61°24'W) The capital of Dominica, 196
- Rub al-Khali** (21°00'N/51°00'E) A large desert in the southern part of the Arabian Peninsula, 491
- Russia** An empire that extended from eastern Europe across north-central Asia to the Pacific Ocean, 361, *m362*
- Russia and the Republics** A region that stretches across much of eastern Europe and north-central Asia to the Pacific; consists of Russia and 14 other countries (republics), 345
- Russian Far East** The area of eastern Russia, 345
- Rwanda, Republic of** (2°00'S/30°00'E) A country in East Africa, 431
- Sacramento** (38°35'N/121°30'W) The capital of California, 108
- Sahara** (26°00'N/13°00'E) The largest desert in the world; stretches across northern Africa, from the Atlantic Ocean to the Red Sea, 420
- Saint Augustine** (29°54'N/81°19'W) Founded in 1565; the oldest permanent European settlement in the United States, 135
- Saint Elias, Mount** (60°18'N/140°56'W) A mountain located on the U.S.-Canada border, 102
- Saint George's** (12°03'N/61°45'W) The capital of Grenada, 196
- Saint John** (45°16'N/66°04'W) A city in New Brunswick, Canada, 166
- Saint John's** (17°07'N/61°51'W) The capital of Antigua and Barbuda, 196
- Saint John's, Canada** (47°28'N/52°18'W) The capital of Newfoundland, Canada, 114
- Saint Kitts and Nevis, Federation of** (17°20'N/62°45'W) A country consisting of the islands of Saint Kitts, Nevis, and Sombbrero in the Caribbean Sea, 198
- Saint Lawrence River** (49°30'N/65°00'W) A Canadian river that flows from Lake Ontario to the Gulf of Saint Lawrence, *m118*, 129
- Saint Lawrence Seaway** (45°20'N/74°50'W) A waterway that connects the Great Lakes to the Atlantic Ocean by way of the Saint Lawrence River, 129
- Saint Louis** (38°38'N/90°12'W) A city in eastern Missouri, 147
- Saint Lucia** (13°53'N/60°58'W) An island country in the Caribbean Sea, 198
- Saint Paul** (44°57'N/93°06'W) The capital of Minnesota, 147
- Saint Petersburg** (59°54'N/30°16'E) A city in western Russia, 362
- Saint Vincent and the Grenadines** (13°05'N/61°12'W) A country consisting of Saint Vincent Island and the northern islets of the Grenadines in the Caribbean Sea, 198
- Sakhalin Island** An island, governed by a Russian Federation, off the east coast of Russia, 346
- Salem** (44°57'N/123°02'W) The capital of Oregon, 110
- Salt Lake City** (40°46'N/111°53'W) The capital of Utah, 112

Samoa, Independent State of (13°35'S/172°20'W) A country that consists of an island group of Oceania in the Pacific Ocean, 712

San Antonio (29°25'N/98°30'W) A city in southern Texas, 148

San Diego (34°43'N/117°09'W) A city in southwestern California, *m149*, 150

San Francisco (37°47'N/122°25'W) A city in western California, 150

San José (9°56'N/84°05'W) The capital of Costa Rica, 196

San Juan (18°28'N/66°06'W) The capital of Puerto Rico, 112

San Marino, Republic of (43°56'N/12°25'E) A tiny country surrounded by Italy, 268

San Marino, the city of (43°55'N/12°28'E) The capital of San Marino, 268

San Salvador (13°42'N/89°12'W) The capital of El Salvador, 196

Sanaa (15°21'N/44°12'E) The capital of Yemen, 484

Santa Fe (35°41'N/105°56'W) The capital of New Mexico, 110

Santiago (33°27'S/70°40'W) The capital of Chile, 211

Santo Domingo (18°28'N/69°54'W) The capital of the Dominican Republic, 196

São Paulo (23°32'S/46°37'W) A city in Brazil, 239

São Tomé (00°20'N/6°44'E) The capital of São Tomé and Príncipe, 412

São Tomé and Príncipe (1°00'N/7°00'E) An island country off the coast of Gabon in Central Africa, 448, *m450*

Sapporo (43°03'N/141°21'E) A city in Japan, 630

Sarajevo (43°51'N/18°23'E) The capital of Bosnia and Herzegovina, 266

Sardinia (40°00'N/9°00'E) An autonomous region of Italy; an island in the central Mediterranean Sea, 272

Saskatchewan (54°00'N/106°00'W) A Prairie Province of Canada, 168

Saudi Arabia (25°00'N/45°00'E) A country that occupies most of the Arabian Peninsula of Southwest Asia, 503

Scandinavian Peninsula (65°00'N/16°00'E) A European peninsula bounded by the Norwegian Sea, the North Sea, and the Baltic Sea; occupied by Norway, Sweden, and Denmark, 271, *m271*

Sea of Japan (43°30'N/135°45'E) An enclosed arm of the Pacific Ocean; bounded by Japan, North Korea, South Korea, and Russia, 647

Seattle (47°36'N/122°20'W) A city in northwestern Washington, 150

Senegal (14°00'N/14°00'W) A country in West Africa, 442

Seoul (37°34'N/126°60'E) The capital of South Korea, 616

Serbia and Montenegro (43°45'N/20°45'E) A country in Eastern Europe, 310

Serengeti Plains (3°25'S/38°00'E) A tropical grassland in East Africa, 422

Seychelles (4°35'S/55°40'E) A country formed by a group of islands off the east coast of Africa; part of East Africa, 431

Shandong Peninsula (37°00'N/121°00'E) A peninsula in northeastern China bounded by the Bo Hai and the Yellow seas, 620

Shanghai (31°14'N/121°28'E) A city in China, 637

Siberia (60°00'N/100°00'E) A region, largely in Russia, that lies on the continent of north-central Asia, 349

Sicily (37°45'N/14°15'E) An autonomous region of Italy; an island located off the coast of southern Italy, 272

Sierra Leone (8°30'N/11°30'W) A country in West Africa, 442

Sierra Madre A mountain range that runs down Mexico, 201, *m203*

Sierra Nevada Mountains (37°42'N/119°19'W) A North American mountain range that runs parallel to the Pacific coastline from California to British Columbia in Canada, 120

Silicon Glen An area in Scotland that has many high-tech companies, 303

Silicon Valley An area in western California known for high-technology industries, 141

Sinai Peninsula (29°30'N/34°00'E) A peninsula at the north end of the Red Sea; situated between the Gulf of Suez on the west and the Gulf of Aqaba on the east, 527

Singapore (1°22'N/103°48'E) A Southeast Asian country that occupies Singapore Island and nearby smaller islands, 705

Singapore City (1°18'N/103°51'E) The capital of Singapore, 709

Skopje (42°00'N/21°26'E) The capital of Macedonia, 268

Slovak Republic (48°40'N/19°30'E) A country in Eastern Europe, 308

Slovenia, Republic of (46°15'N/15°10'E) A country in Eastern Europe, 308

Sofia (42°41'N/23°19'E) The capital of Bulgaria, 266

Solomon Islands (8°00'S/159°00'E) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

Somalia (6°00'N/48°00'E) A country in East Africa, 431

Sonoran Desert An arid region in west North America, 124

South, the The south-central and southeastern area of the United States that includes the states of Maryland, Delaware, West Virginia, Virginia, North Carolina, South Carolina, Kentucky, Tennessee, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Texas, and Oklahoma, 148

South Africa, Republic of (30°00'S/26°00'E) A country in Southern Africa, 453, *m454*

South America The southern continent of the Western Hemisphere bounded by the Caribbean Sea, the Atlantic Ocean, and the Pacific Ocean, 28, *m29*

South Asia A region that includes Afghanistan, India, Pakistan, Bangladesh, Bhutan, Nepal, Sri Lanka, and the Maldives, 551

South Carolina (34°00'N/81°00'W) A state in the southern United States, 112

South China Sea (15°00'N/115°00'E) An arm of the Pacific Ocean bounded by southeastern China, Taiwan, Borneo, the Philippines, and Indochina, *m620*, 622

South Dakota (44°30'N/100°15'W) A state in the Midwest of the United States, 112

South Island (43°00'S/171°00'E) The southern of the two islands that make up New Zealand, 691

South Korea, Republic of (37°00'N/127°30'E) A country in East Asia, 648, *m648*

South Pole (9°S) The southern end of the earth's axis of rotation; a point located in Antarctica, 56

Southeast Asia A region that includes the countries of Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam, 705

Southern Africa A region of Africa that includes Angola, Botswana, Comoros, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe, 453, *m454*

Southern Alps (43°30'S/170°30'E) A mountain range on South Island, New Zealand, 691

Southwest Asia A region that includes Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, and Yemen, 487

Spain (40°00'N/4°00'W) A Mediterranean country in Europe, 268

Springfield (39°48'N/89°39'W) The capital of Illinois, 108

Sri Lanka, Democratic Socialist Republic of (7°00'N/81°00'E) A South Asian island country off the south-east coast of India, 584

steppe A grassland that extends from southern Ukraine through northern Kazakhstan to the Altai Mountains, 352

Stockholm (59°20'N/18°03'E) The capital of Sweden, 268

Straits of Hormuz (26°37'N/56°30'E) A narrow waterway between Oman and southern Iran that connects the Persian Gulf with the Gulf of Oman, 488

Sucre (19°03'S/65°16'W) The constitutional capital of Bolivia, 196

Sudan (15°00'N/30°00'E) A country in North Africa, 438

Suez Canal (29°55'N/32°33'E) A canal connecting the Mediterranean Sea with the Red Sea, 487

Sumatra (0°00'N/102°00'E) An island southwest of the Malay Peninsula; part of Indonesia, 678

Superior, Lake (47°38'N/89°20'W) The largest of the Great Lakes of North America, *m718*, 121

Suriname (4°00'N/56°00'W) A country in northern South America, 230, *m234*

Suva (18°08'S/178°25'E) The capital of Fiji, 684

Suzhou (33°38'N/116°59'E) A city in China, 637

Swaziland (26°30'S/31°30'E) A country in Southern Africa, 453, *m454*

Sweden (62°00'N/15°00'E) A Northern European country that occupies the eastern part of the Scandinavian Peninsula, 300

Switzerland (47°00'N/8°00'E) A country in Western Europe, 294

Syria (35°00'N/38°00'E) A country in the Eastern Mediterranean region of Southwest Asia, 511, *m512*

Syrian Desert (32°00'N/40°00'E) A desert that extends north from the An-Nafud Desert and separates the coastal regions of Lebanon, Israel, and Syria from the Tigris and Euphrates valleys, *m488*, 492

taiga (56°04'N/85°05'E) A large forest holding the world's largest timber reserve; located south of the tundra in Russia, 352

Taipei (25°01'N/121°27'E) The capital of Taiwan, 616

Taiwan (24°00'N/121°00'E) An island country off the coast of southeastern China, 642

Tajikistan (39°00'N/71°00'E) A country in Central Asia, 375

Taklimakan (39°00'N/83°00'E) A desert in western China, 627

Tallahassee (30°26'N/84°17'W) The capital of Florida, 108

Tallinn (59°26'N/24°44'E) The capital of Estonia, 342

Tampa-Saint Petersburg A metropolitan area in western Florida formed by the growth of two cities, Tampa (27°57'N/82°28'W) and Saint Petersburg (27°46'N/82°41'W), 148

Tanganyika, Lake (6°00'S/29°30'E) The longest freshwater lake in the world; forms the border between The Democratic Republic of the Congo and Tanzania, 417

Tanzania (6°00'S/35°00'E) A country in East Africa, 431

Tarim Basin (41°00'N/84°00'E) A lowland area in western China, 619

Tashkent (41°19'N/69°15'E) The capital of Uzbekistan, 342

Taurus Mountains (37°00'N/33°00'E) A mountain range in southern Turkey, 488

Tbilisi (41°43'N/44°47'E) The capital of Georgia, 342

Tegucigalpa (14°06'N/87°13'W) The capital of Honduras, 198

Tehran (35°40'N/51°25'E) The capital of Iran, 484

Tennessee (35°45'N/86°15'W) A state in the southern United States, 112

Texas (31°15'N/99°15'W) A state in the south-central United States, 148

Thailand (15°00'N/100°00'E) A country in Southeast Asia, 705

Thar Desert (27°00'N/71°00'E) A desert in southeastern Pakistan and northwestern India, 558

Thimphu (27°29'N/89°36'E) The capital of Bhutan, 548

Three Gorges Dam A dam under construction in 2001 by China; eventually it will span a valley more than one mile wide, 629

Tian Shan (42°00'N/80°00'E) A mountain range in Central Asia, 346

Tianjin (39°09'N/117°11'E) A city in China, 637

Tibesti Mountains (21°30'N/17°30'E) A mountain range in the Sahara, 417

Tierra del Fuego (54°00'S/70°00'W) The southernmost tip of South America, 201

Tigris River (31°00'N/47°25'E) A river that rises in eastern Turkey, flows southeast through Iraq, and joins the Euphrates River; together they form the Shatt al Arab, which flows into the Persian Gulf, *m488*, 489

Timor (10°08'S/125°00'E) An island of southeast Indonesia, 705

Tiranë (41°20'N/19°49'E) The capital of Albania, 266

Togo (8°00'N/1°10'E) A country in West Africa, 442

Tokyo (35°41'N/139°45'E) One of the largest cities of the world; the capital of Japan, 630

Tonga (20°00'S/175°00'W) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

Topeka (39°03'N/95°41'W) The capital of Kansas, 108

Toronto (43°40'N/79°25'W) The capital of Ontario, Canada; the most populous city in the country, 168

Transantarctic Mountains (85°00'S/175°00'W) Mountain ranges in Antarctica, 692

Transcaucasia (42°00'N/45°00'E) A region bounded by Russia, the Caspian Sea, the Black Sea, Turkey, and Iran and consisting of Armenia, Azerbaijan, and Georgia, 346

Trenton (40°13'N/74°45'W) The capital of New Jersey, 110

Trinidad and Tobago (11°00'N/61°00'W) A country consisting of the islands of Trinidad and Tobago in the Atlantic Ocean near northeast Venezuela, 198

Tripoli (32°54'N/13°11'E) The capital of Libya, 410

Tucson (32°13'N/110°56'W) A city in southern Arizona, 149, *m149*

Tunis (36°48'N/10°11'E) The capital of Tunisia, 412

Tunis, Gulf of (36°58'N/10°46'E) An inlet of the Mediterranean Sea near the city of Tunis, 438

Tunisia (34°00'N/9°00'E) A country in North Africa, 438

Turkey (39°00'N/35°00'E) A country in the northwest region of Southwest Asia, 516, *m516*

Turkmenistan (40°00'N/60°00'E) A country in Central Asia, 375

Tuvalu (8°00'S/178°00'E) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

U.S. Virgin Islands A U.S. territory that consists of the south-west group of the Virgin Islands, 112

Uganda (2°00'N/33°00'E) A country in East Africa, 431

Ukraine (49°00'N/32°00'E) A country that is west of Russia, 361

Ulaanbaatar (47°55'N/106°55'E) The capital of Mongolia, 616

United Arab Emirates (24°00'N/54°00'E) A country in the Arabian Peninsula of Southwest Asia, 503

United Kingdom (54°00'N/4°00'W) A Northern European nation consisting of England, Wales, Scotland, and Northern Ireland, 300

United States (38°00'N/110°00'W) A country in North America that consists of 50 states, the District of Columbia, and four territories, 117

Ural Mountains (60°00'N/60°00'E) A mountain range that runs north and south in western Russia; some consider it as the border between Europe and Asia, 345

Uruguay (33°00'S/56°00'W) A country in southern South America, 230, *m234*

Utah (39°15'N/111°45'W) A state in the western United States, 112

Uzbekistan (41°00'N/64°00'E) A country in Central Asia, 375

Vaduz (47°08'N/9°31'E) The capital of Liechtenstein, 266

Valletta (35°54'N/14°31'E) The capital of Malta, 268

Vancouver (49°15'N/123°08'W) A city in British Columbia, 169

Vanuatu (16°00'S/167°00'E) A country that consists of an island group of Oceania in the Pacific Ocean, 712, *m713*

Vatican City (41°54'N/12°27'E) An independent papal state located near Rome, Italy, 268

Venezuela (8°00'N/66°00'W) A country in northern South America, 230, *m234*

Venice (45°26'N/12°20'E) A city in northeastern Italy, 281

Verkhoyansk (67°35'N/133°27'E) A city in Siberia in Russia, 354

Vermont (44°00'N/72°45'W) A state in New England in the northeastern United States, 145

Victoria (48°26'N/123°21'W) The capital of British Columbia, Canada, 169

Victoria (4°37'S/55°27'E) The capital of Seychelles, 412

Victoria Island (71°00'N/110°00'W) A large island in northern Canada, 121

Victoria, Lake (1°00'S/33°00'E) The second largest freshwater lake in the world; lies in East Africa, 417

Vienna (48°12'N/16°22'E) The capital of Austria, 266

Vientiane (17°58'N/102°36'E) The capital of Laos, 684

Vietnam (16°00'N/106°00'E) A country in Southeast Asia, 705

Vilnius (54°41'N/25°19'E) The capital of Lithuania, 342

Vindhya Mountains (24°37'N/82°00'E) A mountain range in central India, 552

Virginia (37°30'N/78°30'W) A state in the southern United States, 148

Volga River (45°51'N/47°58'E) The longest river in Europe; rises near Moscow, flows east and then south, and empties into the Caspian Sea, 347

Warsaw (52°15'N/21°00'E) The capital of Poland, 268

Washington (47°30'N/120°30'W) A state in the northwestern United States, 148

Washington, D.C. (38°54'N/77°02'W) The capitol of the United States, *m145*, 147

Wellington (41°18'S/174°47'E) The capital of New Zealand, 684

West, the An area of the United States that stretches from the Great Plains to the Pacific Ocean and includes Alaska and Hawaii. Other states in this area are Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Idaho, Washington, Oregon, Nevada, and California, 148

West Africa A region of Africa that includes Benin, Burkina Faso, Cape Verde, Chad, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo, 442

West Antarctica A region of Antarctica; a group of islands of Antarctica linked by the ice that covers them, 692

West Bank (31°40'N/35°15'E) A strip of land on the west side of the Jordan River, 527

West Siberian Plain (60°00'N/75°00'E) A plain in west central Russia, 345

West Virginia (38°30'N/80°30'W) A state in the southern United States, 112

Western Europe A region that includes France, Germany, Austria, Liechtenstein, Switzerland, Belgium, the Netherlands, and Luxembourg, 294

Western Ghats (14°00'N/75°00'E) A mountain range that runs along the west coast of India, 552

Western Republics Countries located west of Russia; they include Ukraine, Belarus, Moldova, Latvia, Lithuania, and Estonia, 361

Whitehorse (60°43'N/135°03'W) The capital of the Yukon Territory of Canada, 114

Windhoek (22°34'S/17°05'E) The capital of Namibia, 410

Winnipeg (49°53'N/97°10'W) The capital of Manitoba, Canada, 114

Wisconsin (44°30'N/90°00'W) A state in the Midwest of the United States, 112

Wuhan (30°35'N/114°16'E) A city in China, 637

Wuxi (31°36'N/120°17'E) A city in China, 637

Wyoming (43°00'N/107°30'W) A state in the western United States, 112

Xi Jiang (also called West River) (22°48'N/113°03'E) A river that flows through southeast China, joins the Pearl River (Zhu Jiang) and empties into the South China Sea, 621, *m620*

Yalu River (39°56'N/124°19'E) A river that forms the border between North Korea and China, 622, *m620*

Yamoussoukro (6°49'N/5°17'W) The capital of Côte d'Ivoire, 408

Yangon (16°47'N/96°10'E) The capital of Myanmar, 684

Yangtze River (also called Chang Jiang) (31°47'N/121°08'E) The longest river in Asia; flows from Xizang (Tibet) across China to the East China Sea, *m620*, 621

Yaoundé (3°52'N/11°31'E) The capital of Cameroon, 408

Yellow River (also called Huang He) (37°45'N/119°05'E) A Chinese river that rises in the Kunlun Mountains, flows east for about 3,000 miles, and empties into the Yellow Sea, *m620*, 621

Yellow Sea (36°00'N/124°00'E) An arm of the Pacific Ocean between the Korean Peninsula and northeastern China, *m620*, 621

Yellowknife (62°27'N/114°21'W) The capital of the Northwest Territories of Canada, 114

Yemen (15°16'N/42°35'E) A country in the Arabian Peninsula of Southwest Asia, 503

Yenisey River (71°50'N/82°40'E) A river that flows through central Russia and empties into the Kara Sea, 347

Yerevan (40°11'N/44°30'E) The capital of Armenia, *m370*, 371

Yukon Territory (63°00'N/136°00'W) A territory in northwestern Canada, 169

Zagreb (45°48'N/16°00'E) The capital of Croatia, 266

Zagros Mountains (33°40'N/47°00'E) A mountain range in western Iran, 488, *m488*

Zambia (15°00'S/30°00'E) A country in Southern Africa, 453, *m454*

Zimbabwe (19°00'S/29°00'E) A country in Southern Africa, 453, *m454*

A

An *i* preceding a page reference in italics indicates that there is an illustration, and usually text information as well, on that page. An *m* or a *c* preceding an italic page reference indicates a map or a chart, as well as text information on that page.

Abbas, Mahmoud. *See* Mazen, Abu.
 Abdul al-Aziz, 505
 Abkhazia, *i372*, 386
 Aboriginal people, *i676*, 718, 719, 722, *i726*, 727–729
 Acadians, *m167*
 acculturation
 defined, 72
 acid rain, 43, *i285*, 325
 aerial photography, 11, *i14*
 Afghanistan, 174, *c484–485*, 488, 490, 516, 517, 518, 519, 552
 Africa, 398, *i588*
 area by country, *c409*, *c411*, *c413*
 birthrate by country, *c408*, *c410*, *c412*
 blended languages in, 73
 capitals and countries of, *c408*, *c410*, *c412*
 cars per country, *c409*, *c411*, *c413*
 climate regions in, 420, *m421*, 422, 423
 colonialism in, *m404*, 432–433, 468–469
 Columbian Exchange, *c136*
 deserts in, *c402*, 420–421
 disease in, *c465*, *m466*, *i467*
 doctors by country, *c409*, *c411*, *c413*
 economic activities in, 461–463
 education in, 463
 ethnic boundaries in, *m469*
 flags of, *c408*, *c410*, *c412*
 gross domestic product by country, *c409*, *c411*, *c413*
 health care, 465–467
 imports and exports by country, *c409*, *c411*, *c413*
 independence of countries, *m473*
 infant mortality rate by country, *c408*, *c410*, *c412*
 landforms in, 415–417, *m415*, *i427*
 landmass of, *c402*
 languages in, *m407*
 life expectancy by country, *c408*, *c410*, *c412*
 literacy rate by country, *c409*, *c411*, *c413*
 mountains in, 417

natural resources in, *m93*, 417–418
 one-commodity countries, *m462*
 physical geography of, *m403*
 political geography of, *m405*
 population of, *c82*, *c402*, *m406*, *c408*, *c410*, *c412*
 religions in, *c406*
 rivers in, *c402*, 415–416
 subregions of, *m430*
 televisions per country, *c409*, *c411*, *c413*
 vegetation in, 422–423
 African Americans, *m142*
 African Development Fund, 466
 African National Congress (ANC), 454
 AIDS (acquired immune deficiency syndrome)
 in East Africa, 435
 in Southern Africa, 456
 throughout Africa, *i401*, *c465*, *m466*, 467
 airline industry. *See* industry, airline.
 airplanes
 hijacking of, 173
 as terrorist weapons, 173
 Alaska, *i44*, 81–82, 123, *i309*
 Albania, *c268–269*, 310, 311, 313
 Albanians, 319, 321, *m322*
 Alberta, *c114–115*, *m157*, 168
 Aleutian Islands, 121
 Algeria, *i164*, *c408–409*, 417, 438, 439, 440–441, 463
 Al-Ghawar, *i474*, *i477*, 497
 Allende, Salvador, *i232*
 alluvial plains, 553
 Alps, *c190*, 274–275, *i274*
 al-Qaeda, 173–174, 517
 Amazon River, *i186*, *c190*, 202–203, 208, 210, *m215*
 Amu Darya, 347, 353
 Anak Krakatoa, *i711*
 analyzing data, R2
 Anatolian Peninsula, 487, 488
 ANC. *See* African National Congress.
 Andes Mountains, 63, *c190*, *i201*, 210
 Andorra, *c268–269*
 Angel Falls, *i200*
 Angkor Wat, Cambodia, *i705*, 708
 Anglo America, 117
 Angola, *c408–409*, 415, 417, 451, 453, 463, *i656*
 An-Nafud Desert, *c478*, *i486*, 492
 Antarctica, *i674*, *m678*, 692, 697, 718–720
 climate regions in, *m683*
 inland exploration, *c687*

national claims in, *i720*, *m720*
 political geography of, *m681*
 subregions of, *m704*
 Antigua and Barbuda, *c196–197*
 anthrax, 175
 antiterrorism coalition, 174
 apartheid, 454–455, 457
 Apennine Mountains, 274
 Appalachian Mountains, 119
 Appalachian Trail, 119
 aqueducts, 292
 aquifers, 33, 421, 496
 Arabian Desert, 62
 Arabian Peninsula, *i486*, 487, 488, 492
 cultures in, 503–504
 government of, 504–505
 history of, *c504*
 modern life in, 505–506
 religious practices, 503–504, 506–507
 religious worship sites, *i508–509*
 Arabian Sea, 552
 Arabs, 512, 514, 515, 516, 532
 Aral Sea, 348, 353–354, *i353*, *i354*
 runoff, 353
 Ararat, Mt., *c478*
 archipelago, 553
 Arctic Circle, 280
 Arctic Ocean, 32, 121
 Argentina, 44, *c196–197*, 203, 209, 211, 232, 249, 250
 Armenia, *c342–343*, 346, 370, 371, 373, 385, 386–387
 art
 of Aboriginal people, 722
 culture expressed through, 77
 Italian Renaissance, *i291*, 292
 in Japan, 654
 mask making, *i656*, *i657*
 painting in Mexico, *i219*
 in South America, 232, *i233*
 in Southeast Asia, 708
 in United States, 143
 in West Africa, 444–445
 in Western Europe, 300
 ASEAN. *See* Association of Southeast Asian Nations.
 Ashanti, 444
 Asian Americans, *m142*
 assimilation, 728
 Association of Southeast Asian Nations (ASEAN), 707
 Aswan High Dam, 426–427, *m426*
 Atacama Desert, 55, 209
 Atlantic Coastal Plain, 119
 Atlantic Ocean, 32, 121

Atlantic Provinces, *m154*, 166–167
 Atlas Mountains, *c190*
 atmosphere, 28
 atoll, 553, 700
 Australia, *i589*, *c684–685*, *i688*, 692, 695, 696, 697. *See also* Aboriginal people.
 cultures of, 722
 economic activities in, 721–722
 history of, 718–720
 Mediterranean climate region in, 62
 modern life in, 723
 natural resources in, *m93*
 physical geography of, *m678*
 plant and animal species, *i696*
 population of, *c82*, *m725*
 Austria, *c268–269*, 296, 300, 301, 327
 Austria-Hungary, 311
 automobiles, 130, 143, 177
 Ayers Rock (Uluru), *i729*
 Azerbaijan, *c342–343*, 346, 370, 371, 373, 385, 386–387
 azimuthal projection, *i18*
 Aztec, 217, 218, 219

B

baby boom, *c79*
baguios, 51
 Bahamas, *c196–197*, 203
 Bahrain, *c484–485*, 503, *c526*, *c537*
 Baikal, Lake, 33, *m336*, *i344*, 348, *i350*
 Bali, 695
 balkanization, 311
 Balkan Mountains, 274
 Balkan Peninsula, 289–290, 319
 Baltic Republics, 361
 Bangalore, India, 570
 Bangladesh, 51, 53, *c548–549*, 551, 555, 557, 558, 560, 562, 568, 573, 574, *c575*, 576, 577, 593
 Bantu, *m448*
 banyas, *i367*
 Barbados, *c196–197*
 Basques, 293
 Bedouins, *i497*, 503, 504, 515
 Beijing, China, 606
 Belarus, *c342–343*, 361
 Belgium, *c268–269*, 296, *m404*, 449, 469
 Belize, *c196–197*
 Benelux countries, 296
 Bengal, Bay of, 552
 Bengalis, 576
 Benin, *c408–409*, 444–445
benji, 456
 Beringia, 127

Berlin Conference, 432, 449, 468
 Berlin Wall, 298
 Bhutan, *c548–549*, 551, 552, 554, 556, 558, 580–582
 Biafra, 86
 Bikini Atoll, 700, *i701*, *m701*
 bin Laden, Osama, 173–174, 517
 biodiversity, *m245*, 246
 biological weapons, 175, 518
 biome, 65
 biosphere, 28
 Birecik Dam, *i497*
 birthrate
 defined, 8
 Black Forest, 285
 Blanc, Mont, *c262*
 blizzards, 126
 defined, 52
bodu beru, 586
 Bolívar, Simón, 231–232
 Bolivia, *c196–197*, 209, 232, 247
 Bora Bora, *i691*
 Borneo, *c679*
 Bosnia and Herzegovina, *i260*, *c268–269*, 310, 320, *i321*
 Bospurus Strait, 488
 BosWash, *m145*, 146
 Botswana, *c408–409*, 415, 453, 455–456
 boundaries, national
 artificial, 85
 natural, 85
 Brahmaputra River, *c549*, 553, 560
 brain drain, 463
 Brasília, Brazil, 88, *i237*, 239
 Brazil, *c196–197*, 205, 209, 210, 211, 213, *m216*, 253, 467
 cultural life in, 239
 economic activities in, 238
 history of, 236–237
 income gap in, 252
 language of, 237
 migration, 238
 natural resources in, 238
 population of, 237
 religion in, 237
 British Columbia, *c114–115*, *m157*, 168–169
 British East India Company, 568
 British Empire, 303, *m304*
 Brunei, *c684–685*, 705
 bubonic plague, 291, *m294*, *i295*
 Buddhism, 76–77, *i508*, 572, 582, 584, *i585*, 638, 648, *i708*, 709
 Buenos Aires, Argentina, 211, *c212*, *i212*
 Bulgaria, *c268–269*, 310, 311

bullet trains, *i655*
 Burkina Faso, *c408–409*
 Burundi, *c408–409*, 431
 Bush, George W., 174
 war against terrorism and, 517–518, 519
 buttes, *i34*
 Byzantine Empire, 291, 311

C

Cajuns, *m167*
 California, 124, 148–149
 Cambodia, *c684–685*, 694, *i705*, 707, 708
 Cameroon, *c408–409*, 417, *m417*, 448, 452
 Canada, 98, *m99*, *i332*
 agriculture in, *m160*
 area by province/territory, *c115*
 area rank, *c115*
 arts in, 163
 Atlantic Provinces, 166–167
 capitals and provinces of, *c114*
 climate in, 62, 123, 124, *m125*, 126
 connections with United States, *m106*
 Core Provinces, 167–168
 cultural clash, *i167*
 doctors by province/territory, *c115*
 dwellings, *i380*
 economy of, 95, *m106*, 159–160, *c159*, *m160*
 flags of, *c114*
 government in, 158
 high school graduates by province/territory, *c115*
 history of, 155, *c156*, 157
 industry in, 159, *m160*
 infant mortality rate by province/territory, *c114*
 landforms of, 85, *c102*, 117–121
 languages in, 161, *m171*
 multiculturalism in, 180–181, 183
 native peoples of, *c. 1600*, *m104*
 natural hazards of, *m107*
 natural resources in, *m120*, 122
 Pacific Province and the Territories, 168–169
 per capita income by province/territory, *c115*
 physical geography of, *m103*
 political geography of, *m105*
 population density by province/territory, *c115*
 population of, *c82*, *c102*, *m107*, *c114*, 161
 population rank, *c115*

- Prairie Provinces, 168
- regions of, *m118*
- religion in, 161
- sports in, 162–163
- subregions of, *m154, c166*, 167–169
- territorial growth in, *m157*
- territories of, *i169*
- terrorism and, 174, 175
- trails and waterways of, 129
- transportation in, 130, *i165*
- urban/rural population by province/territory, *c115*
- urban sprawl, 176–178
- vegetation regions in, *m125*
- weather extremes, 126
- Canadian Multiculturalism Act, 180, 183
- Canadian Shield, 119, 122
- canals, 283–284, *m284*
- canopy, 422–423
- canyons, *i35*
- Cape Hatteras, *i43*
- Cape Verde, *c408–409*
- capitalism, 388
- capoeria, *i239*
- Caribbean islands, 201, 203, 212, 213, *m216*, 224–225
 - colonies of, *c224*
 - economics of, 225–226
 - history of, 222–224
 - population in, 226
 - tourism in, 227
- Carnival, 239, *i240*
- carrying capacity
 - defined, 82
- Carthage, 438
- cartograms, *m22*
- cartographer
 - defined, 10
- Cascade Range, 120
- Caspian Sea, 33, *m336*, 348, *m373*
- caste system, 572
- Caucasus, 385–387, *m385, i386*
- Caucasus Mountains, *i333*, 346, *i347*, 385–386
- caudillo, 249
- CAUSE. *See* Citizens Against Urban Sprawl Everywhere.
- CBD. *See* central business district.
- Central Africa
 - art in, *i451*
 - colonialism, 449–450
 - economic activities in, 450
 - education in, 451–452
 - history of, 448–449
- Central African Republic, *c408–409, m417*, 448, 452
- Central America, 201, *m216*
 - culture of, 224–225
 - economic activities in, 225–226
 - history of, 222–223
 - Panama Canal, 226
 - population of, 226
 - tourism, 227
- Central Asia, 346, 353, *m360*
 - ethnic groups in, 377–378, *c377*
 - history of, 375–376
 - languages in, 378
 - Russian winter in, 354–355
- central business district (CBD), *i89, m90*
- Central Siberian Plateau, 346
- cerrado, 202
- Ceylon, 584
- CFCs. *See* chlorofluorocarbons.
- Chad, *c408–409, m417*, 451
- Chad, Lake, 425
- Chakachamna, *i44*
- Champlain, Samuel de, *i156*
- Chang Jiang, *c610*, 619, 621, 628, 629, *i640–641*
- Chechnya, *i334, i384*, 385, *i386*, 387
- chemical weapons. *See* weapons of mass destruction.
- Chernobyl, *i368, i369*, 392, 393, 395
- chernozem, 345
- Chicago, Illinois, 88, *m90, i98, i144*, 147, 176
- Chile, *i189, c196–197*, 209, 211, *i232*, 234, 235
- China, 44, 62, 174, *i508*, 552, 606, *m612, c616–617*, 623, 625, 626, 627, 637, 638, 639, 643, 644, 648, 668, 669, 690
- Chinese, *c682*
- chlorofluorocarbons (CFCs), 734
- Chosen, 647
- Christianity, 75, 370–371, 510, 532, 572, 585
- chromium, 417, 531
- Circassians, 515
- cities, 639
 - in Africa, 433
 - defined, 87
 - in Eastern Europe, 314
 - growth in Latin America, 211, *c212*
 - in Japan, 630
 - in Oceania, 723
 - population in East Asia, *c669*
 - in Southeast Asia, *i677*, 709, 731
 - in Southwest Asia, 506
 - in United States and Canada, 128, 143, *m153, c176*
 - urban geography, 88–90, *m88, c89, i90*
 - in Western Europe, 301
 - in world, *m97*
- Citizens Against Urban Sprawl Everywhere (CAUSE), 178
- city-state, 289
- cliffs, *i35, i309*
- climate
 - changes in, 56–58, 737
 - factors affecting, 54–55
 - and population distribution, 80
 - response by people, 8
 - soil factors, 45
 - in United States and Canada, 123–126, 158
 - and weather, 50–51
- climate regions, 556, *m557*, 558
 - in Africa, 420, *m421*, 422, 423
 - definition of, 59
 - in East Asia, 625, *m626*, 627
 - in Europe, *m266*, 278–280
 - in Latin America, *i208*
 - in Russia and the Republics, 350–351
 - in Southeast Asia, Oceania, and Antarctica, *m683*
 - in Southwest Asia, 491–492, *m492*
 - types of, 60–63, *m60–61*
- coal, 122, *m204*, 277, 490, 555
- cobalt, 417
- cocoa, 418
- coffee, 418
- Cold War, 138, 363, 700
- collective farms, 364, 372
- Colombia, *c196–197*, 202, 211, 232
- colonialism
 - in Africa, *i401, m404*, 449, 450, 451
 - in Arabian Peninsula, 505
 - in the Caribbean and Central America, 223–224
 - in Eastern Mediterranean, 511
 - language diffusion, 73
 - modern conflicts rooted in, 304
 - in Southeast Asia, 706–707
 - in United States and Canada, 135, 136, 155, 156
- Colorado River, *i67, m149*
- Columbian Exchange, *c136*
- command economy, *i335*, 364
 - defined, 91
- commodity, 462
- Common Market. *See* European Economic Community.
- communism, 138, *m312*, 320, 363, 364, *i366*, 636, 643, 644, 649
 - defined, 83
- Comoros, *c408–409*, 453
- composite maps, *i12*, 13

confederation, 156–157
 Confucianism, 77, *i636*, 638, 648
 Congo, Democratic Republic of, *i401*,
c408–409, 417, 448, 449, 450, *i452*,
 461, 469
 Congo, Republic of, *c408–409*, 448, 449
 Congo River, *c402*, 448
 constitutional monarchies, 580, 581
 Continental Divide, 120
 continental drift, *i29*
 continentality, 350
 continental plates, 29, 661
 continental shelf, 36, 620
 continents, 27, *i29*, 117
 convection, *i50*, 51, 54,
 copper, *m93*, *m204*, 235
 coral reefs, 691
 core, of the earth, *i28*
 Core Provinces, *m154*, 167–168
 Coriolis effect, 54
 Costa Rica, *c196–197*
 costumes, *i716–717*
 Cote d'Ivoire, *c408–409*, 418
 creating a multimedia presentation, R14
 creating and using a database, R15
 creating a sketch map, R12
 creating graphs and charts, R13
 Croatia, *c268–269*, 310, 320
 Croats, 314, 320, *m322*
 Crusades, the, 291
 crust, of the earth, *i28*
 Cuba, *c94*, *c196–197*, 203, *i225*
 cultural crossroads, 310
 cultural hearth, 222
 defined, 72
 culture, 72, 73, 75
 defined, 71
 Cuzco, Peru, 210, 231
 cyclones, 51, 557, 563, *i578*, *i579*
 Cyprus, *c484–485*, 513
 Czechoslovakia, 311, 312, 313
 Czech Republic, *c268–269*, 310, 313, 314

D

dachas, 367
 Dagestan, 385
 Damavand, *c478*
 dams, 426–427, *i562*, 563, 628, 630
 dance, 456, 577, 586, *i714*
 Danube River, *c262*, 275
 Dardenelles Strait, 488
 Dasht-e Kavir, 492
 Dasht-e Lut, 492
 Dead Sea, *i489*
 death rate, 78

Death Valley, *i119*
 debt-for-nature swap, 247
 Deccan Plateau, 552, 556, 558
 deforestation, 554, *i555*, 558, 587
 in Brazil, *i188*
 in Europe, 284–285
 in Latin America, *i244*, 245–246
 in Washington, *i100*
 deltas, *i34*, 43
 democracy, *i139*, 249–251, *i249*, *c250*,
i251, 253, 289, *c303*, 469, 568, 569
 defined, 83
 Denmark, *c224*, *c268–269*, 273, 302
 Department of Homeland Security, 175
 desalinization, 496
 desert, 66, *i475*, *i491*, 558, 626, 627, 697
 in Africa, *c402*, 420–421
 human settlement of, *i70*
 in Latin America, *m194*, 209
 in Russia and the Republics, *m340*,
 352
 in Southwest Asia, *c478*, 491–492
 in United States and Canada, 124,
 m125
 desert climate region, *i60*
 defined, 62
 desertification, *m107*, *i424–425*
 determining cause and effect, R9
 developed nations, 95
 developing nations, 95
 dialect, 73
 diamonds, 415, 444, 456, 555
 Díaz, Porfirio, 218
 dictatorship
 defined, 83
 didgeridoo, *i589*
 disasters, *i578*, *i579*, *i640–641*, *i660*, 663,
i710, *i711*
 distinguishing fact from opinion, R11
 distortion, 10
 Djenné, Mali, *i398*
 Djibouti, *c408–409*, 431
 Dom, *c262*
 Dome of the Rock, *i474*, *i511*
 Dominica, *c196–197*
 Dominican Republic, *c196–197*, 203
 Dominion of Canada, 156–157
 drawing conclusions, R5
 drip irrigation, 496
 drought, *i150*, *i151*, *m436*, *i437*
 defined, 53
 Druze, 515
 Dubai, 530
 Dust Bowl, the, *m150*, *i151*
 dust storms, 44, 53, *m150*, *i151*
 dwellings, *i380–381*

E

earth, the, *i26*, *i28*, *i49*
 earthquakes, 39–40, *i39*, *i40*, *i608*, *i660*,
m664
 defined, 39
 detectors, *i663*
 in Ring of Fire, 41, 662
 ten most deadly, *c47*
 in Turkey, *m520*, *i521*
 in United States and Canada, *m107*
 Earth Summit, 735
 East Africa, 431–435, *m431*
 East Asia, 606
 area by country, *c617*
 birthrate by country, *c616*
 capitals and countries of, *c616*
 cars per country, *c617*
 climate regions, 625, *m626*, 627
 doctors by country, *c617*
 economic activities in, 665–667
 expansion of Chinese empire, *m612*
 flags of, *c616*
 gross domestic product by country,
 c617
 history of, 665–666
 imports and exports by country, *c617*
 infant mortality rate by country, *c616*
 landforms in, *c611*, *c617*, 619, *m620*,
 621–622
 landmass of, *c610*
 languages in, *m615*
 life expectancy by country, *c616*
 literacy rate by country, *c617*
 mountains in, *c611*, 619, *m620*
 natural resources in, *m622*, 623
 physical geography of, *c611*
 political geography of, *m612–613*
 population in, *c82*, *c610*, *m615*, *c616*,
 c669, 671
 precipitation in, *m633*
 religions of, *c614*
 rivers in, *c610*, *m620*, 621–622
 subregions of, *m634*
 televisions per country, *c617*
 total area of countries, *c617*
 vegetation of, *m614*, 625–627
 Eastern Europe
 art in, 314
 Balkan conflict in, 319, *c320*, 321
 balkanization, 311
 communism in, 363
 culture in, 314
 economic activities in, 313
 ethnic and religious animosities,
 314–315, 320–321
 ethnic cleansing, 320

ethnic groups in former Yugoslavia, 1993, *m322*
 fall of communism, *m312*
 gross domestic product, *c313*
 history of, 310–312
 modern life in, 314–315
 per capita GDP, *c313*
 Eastern Hemisphere, *i6*
 Eastern Mediterranean
 economic activities in, 513
 history of, 511–513
 modern life in, 514–515
 religion in, 510–511
 Eastern Orthodoxy, 75, 291, 515
 East Germany, 298, *m317*, 325
 East Timor, 705
 Ebola virus, *i452*
 EC. *See* European Community.
 economic activities, 92
 Economic Community of West African States (ECOWAS), 462
 economic development, measurement of, 94
 economic systems, 91
 economy, 91, 92, *m93*
 ecosystem, 65
 ECOWAS. *See* Economic Community of West African States.
 ECSC. *See* European Coal and Steel Community.
 Ecuador, *c196–197*, 232, 253
 EEC. *See* European Economic Community.
 Egypt, 38, 42, *i398*, *c408–409*, 416, 426, *i426*, 438–439, *m438*
 Elbe River, *c262*
 Elburz Mountains, 487, 488
 elevation, 11, 36, 50, *i56*
 Ellesmere Island, 121
 El Niño, 54, *i57*
 El Salvador, *c196–197*
 endangered species, 700
 epicenter, 39
 epidemics, *m294*, *c295*, *i295*
 equator
 defined, 6
 Equatorial Guinea, *c408–409*, 448
 Erie, Lake, 52
 Eritrea, *c408–409*, 431
 erosion, 43–44, *i151*, 563
 defined, 43
 escarpment, 417
 eskers, 44
 Estonia, *c342–343*, 361
 estuary, 563
 Ethiopia, *c410–411*, 431, 432, 433–434, *m433*, *m436*

ethnic cleansing, *i260*, 320
 EU. *See* European Union.
 Euphrates River, *i497*
 Eurasia, 346
 euro, 305, 327, 328
 Europe, 258, 259, 298, 706, 719, 727
 agriculture, 275, 277
 area by country, *c269*, *c271*
 birthrate by country, *c268*, *c270*
 bubonic plague in, *m294*, *i295*
 capitals and countries of, *c268*, *c270*
 cars per country, *c269*, *c271*
 climate of, 55, *m266*, 278–280
 colonies in United States, 449
 colonization of Africa, 432–433, 454, 468
 Columbian Exchange, *c136*
 contact with China, 636
 deforestation in, 284–285
 development of economies, 95
 doctors by country, *c269*, *c271*
 economic activities in, *c292*
 flags of, *c268*, *c270*
 gross domestic product by country, *c269*, *c271*
 imports and exports by country, *c269*, *c271*
 infant mortality rate by country, *c268*, *c270*
 landforms in, *m273–275*, *m287*
 landmass in, *c262*
 languages in, *m267*, *c297*
 life expectancy by country, *c268*, *c270*
 literacy rate by country, *c269*, *c271*
 mountains in, *c262*, 274–275
 nations of, 1914, *m264*
 natural resources in, *m93*, *m276*, 277
 peninsulas, major, 273
 physical geography of, *c262*, *m263*
 political geography of, *m265*
 pollution in, *i323–325*
 population of, *c262*, *m267*, *c268*, *c270*
 precipitation in, *c281*
 pre-World War I, *m264*
 religions of, *c266*
 rivers in, *c262*, 275
 social welfare in, 306
 sports in, 307, *i308*
 subregions of, *m288*, 289–293, 296–301, 302–307, 310–317
 televisions per country, *c269*, *c271*
 total area of countries, *c269*, *c271*
 transportation, *c269*, *c271*
 European Coal and Steel Community (ECSC), 325
 European Community (EC), *i326*

European Economic Community (EEC), 326
 European Environmental Agency, 324
 European Union (EU), 86, 292, 298, 305, 325, 326, *m327*, 328, 329, *c329*
 Everest, Mt., *c102*, *m125*, *c478*, *i539*, *c542*, *c549*, 552, 580
 Everglades, the, *m36*, 126
 exclave, *m387*

F

family planning, 668, 669
 famines, 364, 372, *m436*, *i437*, 569
 farming, 418, 495, 530, 575, 581–582, 637, *i695*, 721
 in Africa, 423, 425, 427, 433–434, 438–439
 in Canada, 159, *m160*
 carrying capacity, 82
 in Europe, 279
 in Oceania, 714
 in Soviet Union, 364, 372
 in United States, 127, 140, *m141*, 147
 fault, 39
 favelas, 239
 federal government
 aviation security and, US15
 Feni River, *i562*
 Fertile Crescent, 516
 fertility rate
 defined, 78
 festivals, 240–241, *i539*, 583, 586, 644
 field survey, 11
 Fiji, *c684–685*, 691, 712, *i714*, *i716*
 Finland, *c268–269*, 302
 First Nations, 159, 163
 fishing, 159, 167, *i623*
 five themes of geography
 human-environment interaction, 8
 location, 6
 movement, 9
 place, 7
 region, 7–8
 fjords, 273
 flooding, 562, 563, *i579*, 628, 629, *m640*, *i641*
 in Bangladesh, *i541*
 defined, 53
 in Netherlands, 282
 in United States and Canada, *m107*, 126
 floodplain, *i34*, 53
 Florence, Italy, 291, 293
 Florida, *m36*, *i118*, 124, 148
 flow-line maps, *m23*

Foraker, Mt, *c102*
 forestlands, 66, 351
 fossil fuels, 122, 324, *c348*, 490, 497, 734
 Fox, Vicente, *i218*
 France, 135, 155–157, *c224*, *c268–269*,
 296, 297–298, *m299*, 300, 325,
 m404, 505, 511, 636, 707
 free enterprise system, 140
 front, *i50*, 51
 frontier, 137
 Fuji, Mt., *i607*, *c611*, 662

G

Gabon, *c410–411*, 417, 448, 449, 452,
 466
 Gambia, *c410–411*
 Gandhi, Mohandas, 568
 Ganges Plain, 567
 Ganges River, *i552*, 553, 557, 560, *c561*
 Gaza Strip, 513, 527
 GDP. *See* gross domestic product.
 general reference maps. *See* topographic
 maps.
 geographic grid, *i17*
 Geographic Information System (GIS),
 i12, 13
 geography. *See also* maps.
 defined, 5
 five themes of, 5–9
 study methods, 5
 Georgia (Republic of), 124, *c342–343*,
 346, 370, 371, *i372*, 373, 374, 385,
 386
 Geostationary Operational Environment
 Satellite (GOES), 12
 Germany, *i259*, *c268–269*, 273, 296, 298,
 m299, 300, 301, *m317*, 320, *m404*,
 469, 636
 geysers, 41
 Ghana, *c410–411*, *m442*, *c443*, 444, *i447*,
 469, 471
 GIS. *See* Geographic Information
 System.
 glaciers, *i35*, 44
 global economy, 666
 Global Fund for Children's Vaccines, 466
 Global Positioning System (GPS), 13, *i14*
 global warming, 58, 246, 587, 734, *m735*,
 736, 737
 globe
 defined, 10
 GMT. *See* Greenwich Mean Time.
 GNP. *See* gross national product.
 Gobi Desert, 620, 627
 GOES. *See* Geostationary Operational
 Environment Satellite.

Golan Heights, *i487*
 gold, *m204*, 417, 443, 453, 454, 719
 Gorbachev, Mikhail, 312, 363
 government, *i86*, *i139*, 504, 580–581, 637
 levels of, *c86*
 types of, 83
 GPS. *See* Global Positioning System.
 Grand Canal, 283
 Grand Canyon, 42
 grasslands, 66, 422
 Great Barrier Reef, *i688*, 692
 Great Britain, 174, *c303*, 376, 505, 511,
 568, 574, 584, 636, 718, 719, 722
 antiterrorism coalition and, 518
 colonies in Africa, *m404*, 435
 colonies in Caribbean, *c224*
 colonies in United States, 135
 customs in, *i307*
 settlement of Canada, 155–157
 sports in, 307
 Great Dividing Range, 692, 696
 Greater Antilles, 203
 Great Escarpment, 417
 Great Indian Desert. *See* Thar Desert.
 Great Kanto Earthquake, 662
 Great Lakes, the, 33, 52, 88, 121
 Great Mississippi Flood of 1993, *i8*
 Great Plains, 53, 119, 122, 124, 126,
 m150, 168
 Great Regina Plain, *i118*
 Great Rift Valley, 416
 Great Salt Lake, 33
 Great Smoky Mountains, 119
 Great Wall of China, *i85*, *i618*, 619, 635
 Greece, *c268–269*, 278, 289–290, 291,
 c292, 311
 greenhouse effect, *i31*, *c69*
 defined, 58
 Greenland, *i380*
 Greenwich Mean Time (GMT), 357
 Greenwich meridian. *See* prime meridian.
 Grenada, *c196–197*
 gross domestic product (GDP), *c505*
 defined, 95
 gross national product (GNP)
 defined, 94
 Guatemala, *c196–197*
 guest worker, 525, *c526*
 Guiana Highlands, 202
 Guinea, *c410–411*, *c443*
 Guinea-Bissau, *c410–411*
 Gulf Coastal Plain, 119
 Gulf Stream, 55
 Guyana, *c198–199*

H

Haider, Jorg, 301, 327
 Hainan, 621
 Haiti, *c198–199*, 224
 hajj, 503
 Halifax, Nova Scotia, 167
 Han, 635
 Hawaiian Islands, 121, 124, *i137*
 Hejaz Mountains, 488
 hemisphere
 defined, 6
 Hermon, Mt., *c478*
 Hidalgo, Miguel, *i219*
 high islands, 691
 highlands, *m125*, *m194*, 202, 209, *m340*,
 625
 defined, 63
 hijacking. *See* airplanes, hijacking of.
 Himalaya Mountains, 38, *c190*, *i539*,
 c549, 551–552, *i551*, 580
 Hinduism, 76, 560, 568, 569, 571, *i572*,
 574, 583, 585, 708
 Hindu Kush, 552
 Hispanic Americans, *m142*
 Hispaniola, 203
 Hokkaido, *m624*
 Holocaust, 298, 314, 512
 homelessness, 254
 homolosine projection, *i19*
 Homowo, *i447*
 Honduras, 94, *c198–199*
 Hong Kong, *i241*, *i446*, *i609*, 621, 654
 Hormuz, Straits of, 488
 Horn of Africa, *m436*
 hot springs, 41
 Huang He, *c610*, 619, *i621*, 628
 Hu Jintao, 637
 human-environment interaction
 building dams, *i67*, 562–563
 crowding in urban Japan, 630–631
 defined, 8
 desertification, *i424–425*
 farming, 210–211
 impact on land, 282–283
 irrigation, 495
 nuclear testing, 700–701
 pollution, 560–561
 shrinking of Aral Sea, *m353*
 themes of geography, 8
 tourism, 212–213
 traveling the Pacific, 698–699, *i698*,
 i699
 urbanization, 211–212
 humid continental climate region, *i61*,
 124, *m125*, 279, *m340*, 351
 defined, 62

humid subtropical climate region, *m125*,
m194, 209, *m340*, 626, 695
 defined, 62
 Hungary, *c268–269*, 310, 311, 312, *m322*,
 323
 hurricanes, 49, 126
 defined, 51
 Hussein, Saddam, 174, 518
 hydroelectric power, *m204*, 349, 490,
 495, *c629*
 hydrologic cycle, 32–33, *i33*
 hydrosphere, 28

I

Iberian Peninsula, 274, 291
 Ibo, 85–86
 ice ages, *i58*
 icebergs, 493
 ice cap climate region, *m125*
 defined, 63
 ice caps, 44
 Iceland, 41, *c268–269*, 302, 304, 305
 ice sheets, 44, 692
 identifying and solving problems, R10
 Igbo, 443
 Iguacu Falls, *i32*
 immigration, 137, 142–143, 180–181, 182,
 183, 221, 301, 525, 722
 Inca, 210, 230–231
 income gap, 252, *c254*, 255, 732
 India, *i541*, *c548–549*, 551, 554, 555, 556,
 557, *i558*, 638, *i716*
 ancient empires of, *m567*
 caste system, 572
 continental drift, *i29*
 economic activities in, 569–570
 festivals in, *i241*, *i446*
 Green Revolution, the, 569–570
 history of, 567–568
 language in, 571
 modern life in, 570–571
 plate movement in, 38
 population, 593, *m594*
 religion in, 571–572
 subcontinent of, 1947 and 1972, *m574*
 Indian Ocean, 32
 Indochina, 707
 Indo-European languages, *c74*
 Indo-Gangetic Plain, 553, 556
 Indonesia, *i656*, *i677*, *c684–685*, 690,
 694, 705, 708, 709, *c739*
 Indus River, *c548*, 553
 industrialization, 136–138, 304, 362, 364,
 497, 666, *i677*, 707, 730–732, *c739*
 Indus Valley, *m544*, 556, 567, 573

infant mortality rate, 594
 defined, 79
 infrastructure, 94, 177, 212, 418, *m450*,
i461, 462, 513, 530
 Institutional Revolutionary Party (PRI),
 218, 250
 International Date Line, 357
 International Organization for Migration,
 463
 Inuit, 155–156, 162, *i163*, 169
 Iran, *c484–485*, 488, 490, 492, 497, 516,
 517, *i518*, 519
 Iraq, 173, 174, *c348*, *c484–485*, 488, 489,
 516, 517, 518, 519
 Ireland, 277, 302, 305
 irrigation, 492, 493, *i530*
 in Africa, 426–427, *i438*
 Aral Sea, 348, 353
 in Eastern Mediterranean, 513
 in Southwest Asia, 495–496, *i496*
 in the Soviet Union, 377
 in western United States, *i127*, 149
 Islam, 75–76, 291, *i333*, 370–371, *m439*,
 503–504, 507, *i508*, 510, 517, 519,
 576, 585, 586. *See also* Muslims.
 islands, *i34*, 36, 121, 203, *i553*, 584–587,
 620, 621, 630, 662, *c679*, 689, *i690*,
i691, *i711*, 712
 Israel, *i474*, *m480*, *c484–485*, 489, 495,
 511, *m512*, *i514*, 515, *m533*, *c537*
 relations with Palestine, 513, 532–535
 Issyk-Kul, Lake, *m336*
 Italian Peninsula, 290, 291
 Italy, *i62*, *i259*, *c268–269*, *c292*, 293, 320,
m404
 Iturbe, Agustín de, 217

J

Jainism, 572
 Jakarta, Indonesia, *i677*, *i731*, 732
 Jakota Triangle, *c666*
 Jamaica, *c198–199*, 203, 205, 213
 Japan, *c95*, *i607*, *i608*, *i609*, *c616–617*,
 619, 621, 623, 630–631, 636, 643,
i657, 666, 667, 668, 669, *i717*
 culture of, 654
 earthquakes in, 661, *m662*, 663, *m664*
 economic activities in, 652–654
 empire, 1942, *m653*
 history of, 651–652
 modern life in, 655
 volcanoes in, 661, *m662*, 663
 Jerusalem, Israel, *i474*, *i477*, *i510*, *i513*,
 532, *m533*, 534, 535
 Johannesburg, South Africa, 457
 Jordan, *c484–485*, 489, 511, 513, *c537*
 Jordan River, 489
 Juárez, Benito, 218, 251
 Judaism, 75, 315, 365, 510, 532
 Jutland Peninsula, 273

K

K2, *c542*
 Kalahari Desert, 71, *c402*, 420, *i463*
 Kamchatka Peninsula, 346
 Kanchenjunga, *c542*
 Kara Kum, *i347*, 352, 353
 Karzai, Hamid, 517, 519
 Kashmir, 574
 Kauai island, 126
 Kavachi, 41
 Kazakhstan, *c342–343*, 346, 375, 377
 Kenya, *i401*, *c410–411*, *i418*, 431,
 434–435, *i434*
 Kermadec Islands, 40
 kettles, 44
 khamsin, 42
 Khan, Genghis, 642
 Khan, Kublai, 625, 643
 Khyber Pass, 552
 Kikuyu, 435
 Kili, 701
 Kilimanjaro, Mt., 56, *i399*, 417
 Kindu Kush Mountains, 488
 Kiribati, *c684–685*, 712
 Kobe, Japan, 40, *i608*, *i660*, *i661*
 Koguryo, 647
 Kongur, Mt., *c611*
 kora, 445
 Korea, *m84*, 647–650
 Korean Peninsula, *m84*, 620
 Korean War, 648
 Kosovo, 319, 321
 Kostunica, Vojislav, 321
 Krakatoa, *i710*, *i711*
 Kunlun Mountains, 619, 627
 Kurdistan, 516
 Kurds, *i476*, 516, 517, *i524*, 526
 Kuril Islands, 346
 Kuwait, 173, *c484–485*, 488, 499, 503,
 505, 518, 531, *c537*
 Kyoto, Japan, 654
 Kyoto Protocol, 735, 736
 Kyrgyzstan, *c342–343*, 347, 375, 377, *i378*,
i379
 Kyzyl Kum, 347, 352

L

lakes, 33, *m336*
 landfill, 631
 landforms
 defined, 33, *i34–35*, 36
 landlocked country, 84–85
 land reform, 250, 251, 569, 719, *m728*
 Landsat, 12
 landslides, 40
 language
 in Africa, *m407*, 452
 cultural clash in Canada, 161
 as cultural expression, 73
 diffusion of, 73
 in East Asia, *m615*
 in Europe, *m267*
 in India, 571–572
 in Latin America, *m195*, 238
 in Nigeria, *c459*
 in Oceania, 714
 in South Asia, *m591*
 in Transcaucasia, *m370*
 in United States, 181
 language families, 73, *m74*
 La Niña, *i57*
 Laos, *c684–685*, 694, 695, 705, 707, 709
 Latin America, 117, 186
 area by country, *c197*, *c199*
 birthrate by country, *c196*, *c198*
 capitals and countries of, *c196*, *c198*
 cars per country, *c197*, *c199*
 climate zones in, *m194*, 207, *i208*, 209
 democracy in, 249–251, *i249*, *c250*, *i251*
 doctors by country, *c197*, *c199*
 energy resources of, 205
 environmental concerns in, 245–247
 farming in, 210–211
 flags of, *c196*, *c198*
 gross domestic product by country, *c197*, *c199*
 highlands in, 202
 historical political units, 1800, *m192*
 history of, 249
 imports and exports by country, *c197*, *c199*
 income gap in, 252–253, *c254*
 infant mortality rate by country, *c196*, *c198*
 landforms in, *c190*, 201–202, *m203*
 landmass in, *c190*
 land reform, 250–251
 languages in, *m195*
 life expectancy by country, *c196*, *c198*
 literacy rate by country, *c197*, *c199*
 mountains in, *c190*, 201–202

natural resources in, *m204*, 204–205
 physical geography of, *m191*
 political geography of, *m193*
 population of, *c82*, *c190*, *c196*, *c198*, 211
 poverty in, *c257*
 rain forests, 245–247
 religions of, *c194*
 rivers in, *c190*, 202–203
 slash-and-burn farming, *i210*, 211, 246
 subregions of, *m216*
 televisions per country, *c197*, *c199*
 terraced farming, 211
 total area by country, *c197*, *c199*
 tourism in, 212–213
 transportation in, *c197*, *c199*
 urbanization of, *m195*, 211–212
 vegetation regions of, *m207*
 Latinobarometro, *i251*
 latitude, *i6*, *m15*, *i17*, *m25*, 55, *i56*, 59
 defined, 6
 Latvia, *c342–343*, 361
 Lebanon, *c484–485*, 490, 511, 513, 515
 Leeward Islands, 203
 Leizhou Peninsula, 620
 Lena River, 347–348
 Lesotho, *c410–411*, 453
 Lesser Antilles, 203
 Liberia, *c410–411*, 432
 Libya, *c410–411*, 417, 438, 439–440
 lichens, 66
 Liechtenstein, *c268–269*, 296
 Lima, Peru, 211, *c212*
 linear distance, 9
 lithosphere, 28
 Lithuania, *c342–343*, 361
 Little Ice Age, 58
 IJsselmeer, 283
 llanos
 in Colombia and Venezuela, 202
 location, 6, *i14*, *i17*
 absolute vs. relative, 6
 theme of geography, 6
 locks, *i129*, 629
 loess, 44
 Logan, Mt., *c102*
 logging, 167, 418
 longitude, *i6*, *m15*, *i17*, *m25*
 defined, 6
 Louisiana, 73, 148, *m167*
 Louisiana Creole, 73
 Louisiana Purchase, 136
 Lower Canada, 156
 low islands, 691
 Luxembourg, *c268–269*, 296

M

Maastricht Treaty, 327
 Mabo Case, 728
 Macao Peninsula, 620
 Macedonia, *c270–271*, 310, *m322*
 Mackenzie River, *c102*, 121
 Madagascar, *c410–411*, 423, 453
 Makalu, *c542*
 making comparisons, R3
 making decisions, R7
 making generalizations, R6
 making inferences, R4
 malaria, 427, *c465*, 466
 Malawi, *c410–411*, 453
 Malaysia, *c684–685*, 694, 705, *c739*
 Maldives, *c548–549*, 551, *i553*, 584–587
 Mali, *c94*, *i398*, *c410–411*, *m442*, 443
 Malta, *c270–271*
 Manchurian Plain, 620
 Manchus, 635, 636, 643
 mandalas, 583, 705
 Mandela, Nelson, 454–455
 Manitoba, 62, *c114–115*, *m157*, 168
 mantle, of the earth, *i28*
 Maori, 719, *i722*
 Mao Zedong, 636, *i637*
 mapmaking, science of, 11
 Geographic Information Systems (GIS), *i12*, 13
 Global Positioning System (GPS), 13, *i14*
 satellites, *i11*, 12
 surveying, 11
 maps, 64, 206, 322, 494
 defined, 10
 geographic grid in, *i17*
 interpreting a population density map, *m528*
 interpreting a proportional circle map, *m664*
 projections in, 10, *i18*, *i19*
 reading a map, 15
 reading a population pyramid, *m596*
 reading vegetation maps, *m494*
 reading weather, *m559*
 scale in, *i16*
 science of making, 11–13
 time zones, *m357*
 topographic, 11
 types of, *i4*, 11, 20–23
 Maquiladoras, 220
 marine west coast climate region, 124, *m125*, *m194*, 209, 278–279, 696
 defined, 62
 market economy, 313, *i335*, 388, 645
 defined, 91

Marshall Islands, *c684–685*, 700, 712
 Masai, 434
Massif Central, 275
 Mau Mau, 435
 Mauritania, *c410–411*
 Mauritius, *c410–411*, 453, 463
 Mauryan Empire, 567
 Maya, *m222*, 223
 Mazen, Abu, 513
 McKinley, Mt., *c102*, 120, *c262*, *c478*, *c542*
 Mecca, 503
 mechanical weathering, 42
medina, 440
 Mediterranean climate region, *i62*, 493
 in California, 124
 defined, 62
 in Europe, 279–280
 in Latin America, *m194*, 209
 in Russia and the Republics, *m340*
 in United States and Canada, *m125*
 Mediterranean region
 art in, 291–292
 economic activities in, 292
 history of, 289–291
 modern life in, 292–293
 Mediterranean Sea, 438, 487
 megacities, 80
 megalopolis, 88
 defined, 146
 Mekong River, 690
 Melanesia, 713, 715
 Mercator projection, *i19*
 Mercosur, *m234*
 meridian. *See* longitude.
 Mesa Verde National Park, *i135*
meseta, 275
 Mesopotamia, 516
 mestizo, 219
 métis, 161
 metropolitan areas, 148. *See also* cities;
 suburbs; urban geography.
 defined, 87
 Mexico, 117, *c198–199*, 205, 208, 209,
 212, *m216*, 217–221, 251, *i309*, *i509*
 art in, 219
 conquest of, 217–219
 cultural mix, 218
 economic activities in, 219–220
 Fox, Vicente, 218
 government in, 250
 Institutional Revolutionary Party (PRI),
 218
 National Action Party, 218
 natural boundaries, 85
 population distribution in, *m220*

trade with United States and Canada,
 160
 Mexico City, Mexico, 211, *c212*, *i217*
 Michigan, Lake, *i144*, 147
 microcredit, 575
 Micronesia, Federated States of,
 c684–685, 698, 712, 713, 715
 Mid-Atlantic Ridge, 36
 Middle Atlantic states, 145, 146
 Middle East, Israeli-Palestinian conflict
 in, 513, 532–535
 Midwest, the (United States), *m134*, 147
 migrant labor, 150
 migration, 73, 81, 135, 370, 371
 Milosevic, Slobodan, 319, 320
 minerals, 349, 417, 456, 623
 in Africa, *i400*, *i460*
 in Canada, 159
 in Latin America, *m204*
 in Russia and the Republics, *m359*
 in South Asia, 555
 in United States and Canada, 122, 146
 Mississippi River
 diffusion of the blues, 143
 discharge rate of, *c190*
 flooding along, 53, 126
 length of, *c102*
 meeting with Gulf of Mexico, 119
 waterways in United States, *i121*
 Missouri River, 53, *c102*
 mistral, 279
 mixed economy
 defined, 91
 Mobutu Sese Seku, 450, 451, 469
 Mohenjo-Daro, 573–574
 Mojave Desert, 124, *c402*, *c478*
 Moldova, *c342–343*, 361
 Monaco, *c270–271*, 296
 monarchy, 303
 defined, 83
 Mongolia, *c616–617*, 619, 625, 627, 635,
 644
 economic activities in, 644–645
 history of, 642–643
 modern life in, 645–646
 Mongolian Plateau, 620, 627
 Mongols, 361, 625, *i642*, *m643*, 652
 Monrovia, Liberia, 421
 monsoons, *i541*, 557, 694
 Montenegro, 311, 321, *m322*
 Montezuma, 217, *i218*
 Montreal, Canada, 128, 156, 168
 Montserrat, *i228–229*
 moraine, 44
 Morocco, *c410–411*, 438, 440, *i440*, 443
 mortality rate
 defined, 79

Moscow, Russia, *i332*, 361, 366, *m383*
 mosque, 504, 507, *i508*
 mountains, *i35*, 36, 580, *c611*, 619
 altitudes of United States ranges,
 c133
 in Canada, *c102*
 elevation and climate, 56
 in Europe, *c262*, 274–275
 in Latin America, *c190*
 orographic precipitation, *i50*
 in Russia and the Republics, 346,
 m347, 351
 in South Asia, *c542*, 551–552
 in Southeast Asia, *m689*
 in Southwest Asia, *c478*, 488
 in United States and Canada, *c102*,
 123
 movement, 9, *m23*, 73
 linear vs. time, 9
 psychological distance, 9
 theme of geography, 9
 Mozambique, *c410–411*, 415, 453
 Mughal Empire, 568, 576
 Muhajirs, 576
 Muhammad, 439, 503
 multiculturalism, *i101*, 142–143, *m142*,
 180–181, *c181*
 Mumbai, India, 570, *i593*
 Murray River, 692
mushairas, 577
 music
 in Caribbean, 227
 culture expressed through, 77
 in North Africa, 440–441
 in Pakistan and Bangladesh, 577
 in South America, 232
 in United States, 143
 in Western Europe, 300
 world instruments, *i588*, *i589*
 Muslims, *m322*, 507, 510, 515, 517, 519,
 531, 532, 567, 568, 569, 574, 576,
 584
 Myanmar, *c684–685*, 694, 695, 705, 707,
 709

N

NAFTA. *See* North American Free Trade
 Agreement.
 Nagorno-Karabakh, 371, *m387*
 Namib Desert, 55, *c402*, 420
 Namibia, *c410–411*, 451, 453
 Nanjing, China, *m640*
 Nasser, Lake, 426, 427
 national parks, 9, 41, 42, *i116*, 135, *i422*,
 i729
 National Water Carrier, 495

Native Americans, *m104*, 127, 137, *m142*, 143, 159, *m171*, *i657*
 NATO. *See* North Atlantic Treaty Organization.
 natural gas, *m204*, *c348*, 349, 497, *i498*, 518
 natural resources
 in Africa, 450, 468
 defined, 93
 in East Asia, *m622*, 623
 in Europe, *m276*
 in Latin America, *m204*
 in Russia and the Republics, 348–349, 356
 in South Asia, 554–555, *m554*
 in Southwest Asia, 489–490
 in United States and Canada, 121–122
 Nauru, *c684–685*, 714
 Negev Desert, *c478*, 495, *i496*
 Nepal, *c548–549*, 552, 554, *i555*, 556, 558, 580–581
 Netherlands, the, *c224*, *c270–271*, 282–283, 296, *i300*
 New Brunswick, *c114–115*, *i118*, 156–157, 162, 166, 167
 New Caledonia, 691
 New England, 145–147
 Newfoundland, *c114–115*, 155, *m157*, 166
 New Guinea, *c679*, 691
 New Jersey, 81–82
 New York City, 146, 180. *See also* September 11 terrorist attack.
 New Zealand, *c684–685*, 691–692, 695, 696, 718–720, *i721*, 722, 723
 Niagara Falls, *i99*
 Nicaragua, *c198–199*
 Niger, *c412–413*
 Nigeria, 85–86, *c412–413*, 416, 417, 418, 424, 425, *c443*, 445, 448, *c459*
 Niger River, *c402*, 416, 424
 Nile River, *c190*, *c402*, 416, 426–427, *i438*
 9–11 terrorist attack. *See* September 11 terrorist attack.
 nomads, 127, 378, 379, *i476*, 642, 645
 nonviolent resistance, 568
 Noor, Queen, 529
 Nordic countries, 302
 noria, *i496*
 Normandy, 302
 North Africa
 culture of, 440–441
 history of, 438–439
 oil, economics of, 439–440
 religions in, 439
 women's roles, changing, 441

North America
 landforms of, 117–121
 native peoples of, *c. 1600*, *m104*
 natural resources in, *m93*
 transform boundary in, 38
 United States as part of, 135
 North American Free Trade Agreement (NAFTA), 160, 220
 North Atlantic Drift, 55, 278
 North Atlantic Treaty Organization (NATO), 321
 North China Plain, 620
 Northeast, the (Southwest Asia), *m516*, 517, 518–519
 Northeast, the (United States), *m134*, *m145*, 146–147
 Northern Europe, 302–305, 306–307
 British empire, 1900, *m304*
 representative government, *i303*
 Northern European Plain, 345
 Northern Hemisphere, *i6*, 49, *i54*, 55
 Northern Ireland, 305
 North Island, 691
 North Korea, *c616–617*, 619, 623, 626, 648, 649, 650
 North Ossetia, 385
 North Sea, 276, 283
 North Vietnam, 707
 Northwest Territories, *c114–115*, *i123*, 168–169
 Norway, *c270–271*, *i272*, 302, *m305*
 Nostratic language, 73
 Nova Scotia, *c114–115*, 156–157, 162, 166, *m167*
 nuclear energy. *See* Chernobyl.
 nuclear submarines, 393
 nuclear testing, 377
 nuclear waste, 393, 395
 nuclear weapons, 175, 377, 392–393, *i394*, 395, *i541*, 700–701, 713, 714
 Nunavut, *c114–115*, 168, *i169*
 Nyasa, Lake, 38

O

oasis, *i34*, 421, *i475*, 492, *i495*
 Ob River, 347–348
 ocean currents
 defined, 55
 Oceania, *m674*, *m675*, 694
 area by country, *c685*, *c687*
 birthrate by country, *c684*, *c686*
 capitals and countries of, *c684*, *c686*
 cars per country, *c685*, *c687*
 climate regions in, *m683*
 cultural regions of, *m713*

doctors by country, *c685*, *c687*
 economic activities in, 714
 flags of, *c684*, *c686*
 gross domestic product by country, *c685*, *c687*
 history of, 712–714
 human geography of, *m680*
 imports and exports by country, *c685*, *c687*
 infant mortality rate by country, *c684*, *c686*
 landmass of, *c679*
 language in, 714
 life expectancy by country, *c684*, *c686*
 literacy rate by country, *c685*, *c687*
 modern life in, 715
 physical geography of, *m678*
 political geography of, *m681*
 population of, *c82*, *c679*, *c684*, *c686*
 religion in, *m683*, 714
 subregions of, *m704*
 televisions per country, *c685*, *c687*
 territories and possessions, *c686*
 total area of countries, *c685*, *c687*
 traveling around, 698–699, *i698*, *i699*
 oceans, 32–33, *m55*, 57, 121, 698
 Ogadai, 643
 Ogallala Aquifer, 33
 oil, *m22*, 91, *m93*, *m204*, 205, 220, 324, *c348*, 349, 373, 377, 417–418, *m417*, 424, 425, 439, 440, *i474*, *i477*, *i490*, 497, *i498*, *m498*, *m501*, *c505*, 506, 517, 518, 525, *c529*, 555
 Old Faithful, 41
 Olduvai Gorge, 431
 oligarchy, 249
 Oman, *c484–485*, *i495*, *i496*, 503, *c526*, 531
 one-child policy, 639
 one-commodity countries, 462
 Ontario, Canada, *c114–115*, 167
 Ontario, Lake, 52
 OPEC. *See* Organization of Petroleum Exporting Countries.
 Operation Enduring Freedom, 174, 517
 Operation Iraqi Freedom, 518
 Oregon Trail, 129, 137
 Organization of Petroleum Exporting Countries (OPEC), 505
 Orinoco River, 202–203
 orographic precipitation, *i50*, 51
 Osama bin Laden. *See* bin Laden, Osama.
 Ossetian people, 386
 Ottawa, Canada, 157, *i158*, 167
 Ottoman Empire, 311, 319, 505, 511, *m523*

outback, 697
outrigger canoe, 699
ozone layer, 325, *i677*, 734–737

P

Pacific Islands, 698–701
Pacific Ocean, 32, 41, 121
Pacific Provinces and Territories, *m154*, 168–169
Pacific Rim, 645
Padma River, 560
Paektu, Mt., *c611*
pakehas, 722
Pakistan, 174, *i541*, *c548–549*, *i550*, 551, 552, 554, 555, 556, 568, 573–574, *c575*, 576–577
Palau, *c684–685*, 712
Palestine, 511, 512, 527, 534
Palestine Liberation Organization (PLO), 513
Palestinians, 175, *i513*, *i527*, *m533*, 535
pampas, 66
 of Argentina and Uruguay, 202
Panama, *c198–199*, 222
pandemic, 435
Pangaea, *i29*, 415
Papua New Guinea, *c684–685*, 712, 714
Paraguay, *c198–199*, 203, 207, 209, 253
Paraná River, *c190*, 203
parliamentary government, 158
particulates, 324
Patagonia, *i59*, 209
PCBs, 631
Pearl Harbor, 652
Pearl River. *See* Zhu Jiang.
peninsulas, 273–274, 620, 689
Pennsylvania, 146
Pentagon, 173
Perahera, 586
per capita income
 defined, 94
permafrost, 63, 123, 280, 350, 355
Persian Gulf, 487, 489, 490, 517
Persian Gulf War, 174, 499, 517, 518
Peru, 54, *i165*, *c198–199*, 210, 211, *i717*
Philippines, *c684–685*, 689, 690, 694, 705, 709, 731, *c739*
physical maps, *i20*
Pinatuba, Mt., 689
Pinochet, Augusto, *i189*, *i232*
pipelines, 373, *m417*, 426, 497, 499
Pittsburgh, Pennsylvania, 88, 117
place
 theme of geography, 7
plains, 36, 275
 of Amazon River Basin, 202
planar projection. *See* azimuthal projection.
Plateau of Tibet, 619
plateaus, *i35*, 36, 551–552
plate tectonics, 37–39
PLO. *See* Palestine Liberation Organization.
Poland, *c270–271*, 310, 311, 312
polar zones, 56, 697
polders, 282
pollution, 324, 354, 670
 in Europe, *i260*, 285, 323–325
 along the Ganges River, 560, 561
 in Japan, 630
 in Russia and the Republics, 349, *m359*
 in Southeast Asia, 731, 732
 in Southwest Asia, 499
 in United States and Canada, 177
Polynesia, 713
Polynesians, 698, *i699*, 715
population
 in Africa, *c402*, 425
 in China, *i639*
 distribution, 80–81, *m406*
 of East Asia cities, 668–669, *c669*
 of Europe, *c262*
 of Latin America, *c190*, 238
 relocation of, 525–527, 630
 in South Asia, *c542*, *i592*
 in Southwest Asia, *c478*
population density, *m80*, 81–82, *m528*
 in Bangladesh, *i577*
 of Canada, *m107*
 in East Asia, *m615*
 of Europe, *m267*
 in India, *m594*
 along the Nile River, 416
 of South Asia, *m547*
 of United States, *m107*
 of world regions, *c82*
population growth rate, *i3*, 78–79, *c78*, *c79*, *i540*, 670, 671, *c673*
population pyramid, *c79*, *m596*
 defined, 79
Portugal, 236, *c270–271*, 274, 291, *c292*, *m404*, 449, 468
poverty, 144, *i189*, 252–253, 254, 255, *c257*, 455, 595
Powell, Lake, *i67*
Prague, Czech Republic, 314, *i315*
prairie, *i35*, 65
Prairie Provinces, *m154*, *i168*
precipitation, 735
 in Africa, 421–422
 and climate regions, 59
 in East Asia, *m633*

 in Europe, *c281*
 ocean currents and, 55
 in South Asia, 557, *m565*
 in Southwest Asia, 491–492
 types of, 50–52, *i50*
 in United States coastal mountain ranges, 124
prevailing westerlies, 124
PRI. *See* Institutional Revolutionary Party.
prime meridian, *i6*, *m357*
 defined, 6
prime minister, 158
Prince Edward Island, *c114–115*, *m157*, 166
privatization, 388
proportional circle maps, *m664*
Pueblo, 127
Puerto Rico, 203
purdah, 576
Pushkin, Aleksandr, 366
push-pull factors, 211, 730
 defined, 81
 in Latin America, 211
Putin, Vladimir, *i363*, 389
Pyongyang, North Korea, 650
pyramids, 219, *i223*, *i398*, *i509*
Pyrenees Mountains, 274

Q

qanat, *i496*
Qatar, *c484–485*, 503, 506, *c526*, *c537*
Qawwali, 577
Qinling Shandi Mountains, 619
qualitative maps, *m22*
Quebec, *c114–115*, 162, 167, 180
Quechua, 231

R

radiation, *i368*, *m368*, 377
rai, 440
rain forest, 422–423, 425, 558
 in Africa, 421
 deforestation in Brazil, *i188*
 in Latin America, 207–208, *m245*, 246, 247
 medicine from, *i205*
 vegetation in, 66
rain shadow, 51, 492
Ramadan, 504, 507, 576
ranching, *i721*
rate of natural increase
 defined, 79
ratio scale, *i76*
recession, 138, 667

recycling, *c185*
 Red Sea, 38, 487
 refugees, *i513*, 517, 526, 527
 region
 formal, 7
 functional, 8
 perceptual, 8
 theme of geography, 7–8
 relief, 36
 religion
 in Africa, *c406*
 animism, 75
 in Arabian Peninsula, 506–507
 architecture, *i508*, *i509*
 in Brazil, 238
 in Canada, 161
 in China, 638
 climates of, *m340*
 as cultural expression, 75
 in East Asia, *m614*
 in Europe, *c266*
 freedom in United States, 143
 in India, 571–572
 major belief systems, 75–77
 in Nepal and Bhutan, 582–583
 in Oceania, 714
 polytheism, 75
 of Russia and the Republics, *c340*
 in Southeast Asia and Oceania, *m683*, 708
 worldwide distribution, *c76*, *m76*
 Renaissance, the, 291
 representative democracy, *i139*, *c303*
 Rhine River, *c262*, 275, 324
 Richter Scale, 40
 ridges, 36
 Ridge, Tom, 175
 rift valleys, *i416*
 Ring of Fire, 41, 661, *m662*, 663, 690
 Rio de Janeiro, Brazil, *i7*, *i187*, 211, *c212*, 213, 239, *i240*
 Rio de la Plata, 203
 Rio Grande, 85, *c102*
 rivers, 33, *i34*
 in Africa, *c402*, 415–416
 in Canada, *c102*
 in East Asia, *c610*, 621–622
 erosion, 43
 in Europe, *c262*, 275
 flooding from, 53
 in Latin America, *c190*
 in South Asia, 552–553, *i552*
 in Southeast Asia, *m689*
 in United States, *c102*
 road map (Middle East peace plan), 513
 Robinson projection, *i19*

Rocky Mountains, 119–120
 Roman Catholicism, 75, 291, 297
 Roman Empire, *m22*, 290–292, *m290*, 296, 311
 Romania, *c270–271*, 310, 311, 312, 313, 323
 Rome, Italy, 293
 Rosa, Monte, *c262*
 Rub al-Khali, *c478*, *i490*, 491
 rubber, *m93*, 469
 Rupert's Land, 156
 Russia and the Republics, 332, *c342–343*, *i509*, 636
 area by country, *c343*
 art in, 365–366
 birthrate by country, *c342*
 capitals and countries of, *c342*
 cars per country, *c343*
 climate regions of, 62, *m340*, 350–351
 doctors by country, *c343*
 economic system in, *i91*, 364, 388–390
 ethnic groups in, *m341*, 365, *c377*
 expansion of land, *m362*
 extreme weather in, 354–355
 federal districts of, *m389*
 fighting in Chechnya, 386
 flags of, *c342*
 gross domestic product by country, *c343*
 history of, 361–363
 imports and exports by country, *c343*
 income distribution in, *c391*
 infant mortality rate by country, *c342*
 lakes in, *c336*
 landforms in, 345–348
 landmass of, *c337*
 life expectancy by country, *c342*
 life expectancy in, *c397*
 literacy rate by country, *c343*
 mining in, *m359*
 modern life in, 366–367
 mountains in, 346–347
 natural resources in, 348–349, 356
 nomadic life, 378–379, *i380–381*
 nuclear weapons in, 392–393
 organized crime in, 390
 physical geography of, *m336*, *m337*
 political geography of, *m338–339*
 population of, *c82*, *c337*, *m341*, *c342*
 religion in, *c340*, 365
 rivers and lakes in, *c336*, 347–348
 subregions of, *m360*
 televisions per country, *c343*
 terrorism and, 174
 transportation in, *m355*

unemployment in, *c391*
 vegetation regions, 351–352, *m351*
 Russian Revolution, 363
 rust belt, 146
 Rwanda, 81, *c412–413*, 431, 451

S

Sacramento, California, 88
 SADC. *See* Southern African Development Community.
 Sahara, 62, 420, *i420*, 443, *c478*
 Sahel, 425
 Sakhalin Islands, 346
 salt, 443, 490
 saltwater lakes, 33
 Sami, 302
 Samoa, *c684–685*, 712
 San Andreas Fault, 38
 sand dunes, 44
 sandstorms, 42
 San Marco, 283
 San Marino, *c270–271*
 Santa Fe Trail, 129
 Santiago, Chile, 211, *c212*
 São Paulo, Brazil, 211, *c212*, 239
 São Tomé and Príncipe, *c412–413*, 448
 Saskatchewan, *c114–115*, *i118*, *m157*, 168
 satellite nations, 312
 Saudi Arabia, 38, 173, *c348*, *i474*, *i477*, *c484–485*, 488, 497, 503, 505, 506, *c526*, 530, *c537*
 savanna, 66, 208
 Scandinavia, 280, 285, 361
 Scotland, 275, *i588*
 sea level, *i34*, 734
 seas, 29, 32–33, 36
 seasons, *i49*
 Seattle, Washington, 141
 sediment, 42, 43, 44
 seeing patterns, R8
 seismograph, 39, *i663*
 semiarid climate region, *i61*, 124, *m125*, *m194*, 208, *m340*, 493, 627
 defined, 61
 Senegal, *c412–413*, 467
 Seoul, South Korea, *i607*, 650
 September 11 terrorist attack, 173–175, 517
 anthrax and, 175
 Serbia, 311, 319, 321
 Serbia and Montenegro, 321
 Serbs, 314, 321, *m322*
 Serengeti Plain, 422
 Seychelles, *c412–413*, 431
 Shandi Mountains, 619

- Shandong Peninsula, 620
 Shanghai, China, *i81*, 637
 Shatt al Arab, 489
 Sherpas, *i582*
 Shevardnadze, Edvard, 387
 Shi Huangdi, 635
 Shi'ite, 515, 516
 Shintoism, 77
 shogun, 651
 Siberia, 129, 349, 350, *i352*, 354–355, 356
 Sierra Leone, *c412–413*, *c443*, 444
 Sierra Nevada, 120
 Sikhism, 569, 572
 Silicon Valley, 141
 Silk Road, the, *m375*, 376
 silt, 427
 Singapore, 82, *c684–685*, 705, 709
 Sinhalese, 584, 585
 sirocco, 279
 SkillBuilder Handbook
 analyzing data, R2
 creating and using a database, R15
 creating graphs and charts, R13
 creating a multimedia presentation, R14
 creating a sketch map, R12
 determining cause and effect, R9
 distinguishing fact from opinion, R11
 drawing conclusions, R5
 identifying and solving problems, R10
 making comparisons, R3
 making decisions, R7
 making generalizations, R6
 making inferences, R4
 seeing patterns, R8
 slash-and-burn farming, *i210*, 211, 246, 423
 slavery, 136, 223, 234, 236, 445, 449
 sleeping sickness, *c465*
 Slovakia, *c270–271*, 310, 313
 Slovenes, *m322*
 Slovenia, *c270–271*, 310, 320
 smallpox, *c465*
 smog, 62, 325
 snowbelt, 52
 snowstorms, 126
 socialist realism, 366
 soil, 45, *c65*
 Solomon Islands, 41, *c684–685*, 691, 712
 Somalia, *c412–413*, 415, 421, 431, *m436*, *i437*, 463
 Songhai, *m442*, 443
 Sonika, 443
 Sonoran Desert, 124
 souks, *i440*
 South, the (United States), *m134*, 148
 South Africa, *c412–413*, 415, 417, 453, 454–455, *i456*, 457, 466, 467, 469
 South America, *m187*, 201, *m216*
 arts in, 232–233
 economic activities in, 233–234
 education in, 234–235
 government in, 232
 history of, 230–232
 natural resources in, *m93*
 South Asia, 538
 area by country, *c549*
 birthrate by country, *c548*
 capitals and countries of, *c548*
 cars per country, *c549*
 climate regions of, 556, *m557*, 558
 doctors by country, *c549*
 economic activities in, *m547*, *c549*
 flags of, *c548*
 gross domestic product by country, *c549*
 imports and exports by country, *c549*
 Indus Valley civilization, *m544*
 infant mortality rate by country, *c548*
 landforms in, 38, 551, *i552*, 553
 landmass of, *c542*
 language in, *m591*
 life expectancy by country, *c548*
 literacy rate by country, *c549*
 mountains in, *c542*, 551–552
 natural resources in, 554–555, *m554*
 physical geography of, *m543*
 political geography of, *m545*
 population of, *c82*, *c542*, *m547*, *c548*, 593–595
 precipitation in, *m565*
 religion in, 75, *c546*, *m546*
 rivers in, *c542*, 552–553
 subregions of, *m566*
 televisions per country, *c549*
 total area of countries, *c549*
 using physical maps, *m20*
 using political maps, *m21*
 vegetation regions, *m557*, 558
 Southeast Asia, *m674*, *m675*
 area by country, *c685*, *c687*
 area by island, *c679*
 art in, 708
 birthrate by country, *c684*, *c686*
 capitals and countries of, *c684*, *c686*
 cars per country, *c685*, *c687*
 climate regions in, *m683*, 694–697
 colonies in, 1895, *m706*
 doctors by country, *c685*, *c687*
 economic activities in, 707–708
 empires and kingdoms, 1200, *m681*
 environmental issues, 734–735
 ethnic Chinese in, *c682*
 ethnic groups in, 705
 flags of, *c684*, *c686*
 gross domestic product by country, *c685*, *c687*
 history of, 705–707
 human geography of, *m680*, *c682*
 imports and exports by country, *c685*, *c687*
 industrialization, 730–732, *c739*
 infant mortality rate by country, *c684*, *c686*
 landforms in, *m678*, *c679*, 689–690, *m689*, *i690*
 landmass of, *c679*
 life expectancy by country, *c684*, *c686*
 literacy rate by country, *c685*, *c687*
 modern life in, 709
 political geography of, *m680–681*
 pollution in, 732
 population of, *c82*, *c679*, *c684*, *c686*
 poverty in, 709
 religions in, *m683*, 708
 subregions of, *m704*
 televisions per country, *c685*, *c687*
 total area of countries, *c685*, *c687*
 urbanization, 730–731
 vegetation, 694–697
 volcanoes in, *c682*
 Southern Africa
 apartheid, 454–455, 457
 cultures in, 456–457
 economic activities in, 455–456
 ethnic groups in, *m454*
 history of, 453–454
 lifestyles, modern and traditional, 457
 Southern African Development Community (SADC), 462
 Southern Alps, 691
 Southern Hemisphere, *i6*, *i54*, 55
 Southern Ocean, 32
 South Island, 691, 696
 South Korea, *i607*, *c616–617*, 619, 626, 648, *i649*, 650, 654, *c659*, 666, 667, 668
 South Pole, 692, 697
 South Vietnam, 707
 Southwest Asia, 474
 area by country, *c485*
 birthrate by country, *c484*
 capitals and countries of, *c484*
 cars per country, *c485*
 climate regions of, *c478*, 491–493, *m492*
 deserts in, *c478*, 491–492
 doctors by country, *c485*

economic activities in, *m15, m483*
 ethnic groups in, *c482*
 ethnic regions, *m482*
 flags of, *c484*
 gross domestic product by country, *c485*
 imports and exports by country, *c485*
 infant mortality rate by country, *c484*
 landforms in, 487–489
 landmass of, *c478*
 life expectancy by country, *c484*
 literacy rate by country, *c485*
 mountains in, *c478, 488*
 natural resources in, 489–490, 529–530
 oil, 490, 497, *i498, m498, 499, 529–531*
 physical geography of, *m479*
 political geography of, *m481*
 population of, *c82, c478, c484, 525–527*
 refugee problem, 526–527
 religion in, 75, *m483*
 rivers in, *m488, 489*
 subregions of, *m502*
 televisions per country, *c485*
 total area of countries, *c485*
 water resources in, 495–496, *c537*
 women's roles, 531
 workforce, 525–526
 Soviet Union, 310, 312, 313, *m339, 363, 364, 366, 371, 376, 385, 386, 388, m392. See also Russia and the Republics.*
 Spain, *c270–271, 274, 291, 292, 293, 706*
 colonies in Latin America, *c224, 249–251*
 colonies in United States, 135
 conquest of Mexico, 217–219, 223–224
 conquest of South America, *c230, c231, 232*
 dwellings, *i381*
 Spanglish, 73
 spheres of influence, 636
 Sri Lanka, *i539, c548–549, 551, 553, 555, 557, 584–587*
 St. Elias, Mt., *c102*
 St. Kitts and Nevis, *c198–199*
 St. Lawrence Seaway, *i129*
 St. Lucia, *c198–199*
 St. Petersburg, Russia, 362, 366
 St. Vincent and the Grenadines, *c198–199*
 stateless nation, 526
 stateless society, 443, 449
 steppes, *i35, 66, 352, 626, 627*
 Stolen Generation, 728
 storm surges, 562
 straits, *i34*

strategic commodity, 529
 streams, 33, 43
 subarctic climate region, *i63, 123, m125, m340, 351, 625*
 defined, 62
 subduction, 661
 subtropical climate region, 124
 suburbs, 138, 143, 177
 defined, 87
 Sudan, *c412–413, 416, 426, 438*
 Suez Canal, 487, 505
 sugar, 224, 225, 236
 Sumatra, *c679*
 sunbelt, 148
 Sunni, 515, 516
 supra, i374
 Suriname, *c198–199*
 surveying, 11, *i14*
 sustainable communities, 178
 Swahili, 73
 swamps, *i34*
 Swaziland, *c412–413, 453, 466*
 Sweden, *c270–271, 302, 303, 305*
 Switzerland, *c270–271, 299*
 Sydney, Australia, 718, *i719, i723*
 Syr Darya, 347, 353
 Syria, *c484–485, 487, 489, 511, 526*
 Syrian Desert, 492

T

Tagore, Rabindranath, 577
 taiga, 62, 352, *i352*
 Taino, 223
 Tain Shan, 627
 Taiwan, *c616–617, 619, 621, 623, 626, 627, 642–643, 644–646, 654, 666, 667, 668*
 Tajikistan, *c342–343, 347, 375, 377*
 Taklimakan Desert, 619, 627
 Taliban, 174, 517, 519
 Tamils, 569, 584
 Tanganyika, Lake, 38, 417
 Tanzania, 55, *c412–413, 431, 432, 434*
 Taoism, 77, 638
 Tarim Pendi Basin, 619
 Taurus Mountains, 487, 488
 tea, *c586*
 technology, 82, 94, *i138, m141, 530*
 tectonic plates, *i37, 40, 661*
 Temple Mount, 510, 532, *m533*
 Tennessee Valley Authority (TVA), 86
 Tenochtitlán, *i186, 217, 218, 219, m243*
 Teotihuacán, 219
 terraced farming, 211, *i695*
 terrorism, 173–175
 coalition against. *See* antiterrorism coalition.
 definition of, 173
 terrorist attacks. *See* September 11 terrorist attack.
 TGV, 299
 Thailand, 95, *i674, c686–687, 694, 695, 705, i708, 709, c739*
 Thar Desert, 553, *i556, 557, 558*
 Three Gorges Dam, 623, 628–630, *m628, i629, m640*
 Three Kingdoms, 647
 Tibesti Mountains, 417, 420
 Tien Shan, 346
 Tigris-Euphrates River, *m488, 489, 493, 495, 516*
 Tikal, 223
 timber, *m204, 418, 554, i555*
 time zones, world, *m357*
 Timor, 705
 Tisza River, *i323*
 Titicaca, Lake, *i165*
 Togo, *c412–413*
 Tokyo, Japan, 80, *i609, 630, 631*
 Toltec, 217
 Tonga, *c686–687, 712*
 topographic maps
 defined, 11, 36
 topography
 defined, 36
 Tordesillas, Treaty of, *m236*
 Tornado Alley, *m52, 126*
 tornadoes, *i48, 51–52, m107, 126*
 defined, 51
 Toronto, Canada, 156, 168
 tourism, 148, 160, 212–213, 227, 434, 581–582, 714
 trade routes, *m375, m442, 443*
 traditional economy
 defined, 91
 Transantarctic Mountains, 692
 Trans-Canada highway, 130
 Transcaucasia, 35, 346, 351, *m360, 370–374*
 transcontinental railroads, 130, *i137, 157, m355*
 Transjordan, 512
 transportation
 bullet trains, *i655*
 comparing cultures, *i64–65*
 functions of cities, 90
 highways, 130, *m131, 177*
 as infrastructure, 94
 Trans-Siberian Railroad, 355–356, *m355, i356*

tributaries, 33
 Trinidad and Tobago, *c198–199*, 205
 tropical storms, 51, *m107*
 tropical wet and dry climate region,
m125, m194, 208, 694
 defined, 61
 tropical wet climate region, *i60, m194*,
 207, 627, 694
 defined, 60
 tropical zones, 55, 124–126, 207–208,
 421, 694
 Tropic of Cancer, 49
 Tropic of Capricorn, 49
 tsunami, 40, 662, *i710*
 Tuamotu Archipelago, 5
 Tumbuka, 456
 tundra, *m66*, 123–124, *m125*, 280, *m340*,
m351, 625
 defined, 63
 Tunguska Event, 31
 Tunisia, *c412–413*, 438, 439, 441
 Turan Plain, 347
 Turkey, 73, *c484–485*, 487, 488, 489, 490,
i493, 495, *i497, i508*, 511, 516, 517,
 518, 519, *m520, i521, m521, i524*,
 526
 Turkmenistan, *c342–343*, 347, 352, 375,
 377, 378
 Tuvalu, *c686–687*, 712
 TVA. *See* Tennessee Valley Authority.
 typhoons, *i51*, 625, *i627*
 defined, 51

U

Uganda, *c412–413*, 416, 431, 434, 451,
i452, 467
 Ukraine, *c342–343, i345*, 361, 393
 Uluru. *See* Ayers Rock.
 UNAIDS, 466, 467
 UNICEF. *See* United Nations Children's
 Funds.
 United Arab Emirates, *c484–485*, 503,
c526, 530, *c537*
 United Kingdom, *c270–271*, 302. *See*
also Great Britain.
 United Nations, *i83*, 86
 United Nations Children's Funds
 (UNICEF), 665
 United Provinces of Central America,
 223–224
 United States, 98, *m99*, 119, 652, 707
 agriculture in, *m141, c147*
 area by state, *c109, c111, c113*
 area rank, *c109, c111, c113*
 assimilation, 181

capitals and states of, *c108, c110*,
c112
 climate in, 62, 123, 124, *m125*, 126
 Cold War with Soviet Union, 363
 connections with Canada, *m106*, 160
 development of the West, *c137*
 doctors by state, *c109, c111, c113*
 drought in, 53
 economic activities in, 95, *m106, c140*
 ethnic minority distribution, *m142*
 flags of, *c108, c110, c112*
 government of, *i139*
 high school graduates by state, *c109*,
c111, c113
 industry in, 137–138, 141, *m141*
 infant mortality rate by state, *c108*,
c110, c112
 landforms of, *c102*, 117–121
 landmass of, *c102*
 languages in, 143
 major sectors of economy, *c140*
 megalopolis in, 88
 Midwest, the, 147
 mountains in, *c102*, 119–121
 multiculturalism in, 180, *c181*, 221
 native peoples of, c. 1600, *m104*
 natural boundaries, 85
 natural hazards of, *m107*
 natural resources in, *m120*, 121–122
 Northeast, the, 145–147
 nuclear weapons in former Soviet
 Union, 393
 peace talks between Armenia and
 Azerbaijan, 387
 per capita income by state, *c109*,
c111, c113
 physical geography of, *m103*
 political geography of, *m105*
 population density by state, *c109*,
c111, c113
 population of, *c79*, 81–82, *c82, c102*,
m107, c108, c110, c112, m146,
m153
 population rank, *c109, c111, c113*
 postindustrial economy, 141–142
 poverty in, 144
 recycling in, *c185*
 regions of, *m118*
 religion in, 143
 rivers in, *c102*
 settlement of, 135–136
 South, the, 148
 sports in, 144
 subregions of, *m134*, 145–149, 147
 technology growth in, *i138*
 terrorist attacks on, 173–175
 tornado activity, *m52*

trade with Mexico, 220
 transportation in, 121, 129, 130
 urban/rural population by state, *c109*,
c111, c113
 urban sprawl, 176–178, *m179*
 vegetation regions in, *m125*
 weather extremes, 126
 West, the, 148–149
 Upper Canada, 156
 Ural Mountains, 346
 urban geography, 87–90, *m97*
 urbanization, 506, 525
 in Brazil, 238
 in Canada, 162
 defined, 88
 land use patterns, 89
 in Latin America, *m195*, 220
 in Mediterranean climate region, 293
 movement of population, 80
 of northeastern United States, *m145*
 in Oceania, 723
 in Southeast Asia, 730–732
 in United States, 128, 137, *c176*
 urban sprawl, *i101*, 148
 in United States and Canada,
 176–178, *m179*
 Uruguay, *c198–199*, 209, 211, 253
 U.S.S.R. *See* Soviet Union; Russia and
 the Republics.
 Uzbekistan, *c342–343*, 347, 352, 375, 377

V

valleys, *i35*, 43
 Vancouver, Canada, 169, 178
 Vanuatu, *c686–687, i712*
 Vatican City, *c270–271*
 vegetation, 80, *m494*
 vegetation regions, 65–66
 Venezuela, *c198–199*, 202, 205, 232
 Venice, Italy, *i281*, 283–284, 291
 Verkhoyansk, Siberia, 354
 Victoria Falls, *i414*
 Victoria, Lake, 417
 Vietnam, *i164, c686–687*, 690, 694, 695,
 705, 707
 Vikings, 155, 302, 361
 Vindhya Range, 552
 Virginia, *i122*, 148
 Virgin Islands, *i213*
 volcanoes, *i2, i34*, 40–41, *m107*,
i228–229, 662, *c682*, 689–690,
i710–711
 defined, 40
 Volga River, 348
 Vostok, Antarctica, 63

W

wadis, 488
 Waialeale, Mount, 126
 Waitangi, Treaty of, *i719*
 war against terrorism
 in Afghanistan, 174, 517, *i517*, 518, 519
 Bush administration and, 174, 517
 Washington, D.C., *m16*, *m179*
 water, 33, 149, 490, 495–496, *c537*
 waterfalls, *i32*, *i414*, 416
 weapons of mass destruction, 518
 weather, 12, 50–53, 126, 350, 354
 weather extremes
 blizzards, 52
 droughts, 53
 floods, 53
 hurricanes, 51
 tornadoes, 51
 typhoons, 51
 in United States and Canada, 126
 weathering, 42–43
 defined, 42
 Wen Jiabao, 637
 West, the (United States), *m134*, *i137*, 148–149
 West Africa, 416
 art in, 444–445
 economic activities in, 443–444
 empires of, *m442*, 443
 gross national product, 1987–1997, *c443*
 history of, 442–443
 music in, 445
 West Bank, 513, 527, 532
 Western Europe
 art in, 300
 economic activities in, 298–300
 history of, 296–298
 modern life in, 301
 Reformation, the, 297
 Western Ghats, 552
 Western Hemisphere, *i6*
 Western Wall, 510
 West Germany, 298, *m317*
 West Indies, 203
 West Siberian Plain, 346
 Wik Case, 729
 winds
 climate effects, *i54*, *i57*
 erosion, 44
 global wind currents, *i54*
 khamsin, 42
 mistral, 279
 sirocco, 279
 tornadoes, 51–52

over tropical ocean waters, 51
 westerlies in Europe, 278
 willy-willies, 51
 Windward Islands, 203
 women's roles, 595, 720
 in Arabian Peninsula, 506, *i507*
 farming in United States, 135
 in North Africa, *i441*
 in Southwest Asia, *i519*, 529, 531
 wool, 721
 World Trade and Development Act, 471
 World Trade Center, 173. *See also*
 September 11 terrorist attack.
 World War I, 298, *c311*
 World War II, *c311*, 312, 652, 713

X

Xi Jiang, *c610*, 621, 622
 Xizang Plateau, 619

Y

Yalu Jiang, *m84*, 622
 Yangtze River. *See* Chang Jiang.
 Yellow River. *See* Huang He.
 Yemen, *c484–485*, 503, 505, *c537*
 Yenisey River, 347–348
 Yugoslavia, *c270–271*, 310, 311, 313, 319, *i321*, *m322*
 Yukon Territory, *c114–115*, 123, *m157*, 168–169
 yurts, *i72*, *i379*, *i380*, 645

Z

Zagros Mountains, 487, 488
 Zaire, 471
 Zambezi River, *i414*
 Zambia, *c412–413*, 417, 453
 Zeugma, *i497*
 Zhu Jiang, 622
 Zimbabwe, *c412–413*, 451, 453
 Zuider Zee, 283
 Zulu, 454, *i455*, 457

Acknowledgments

This product contains proprietary property of **MAPQUEST.COM**.
Unauthorized use, including copying, of this product, is expressly prohibited.

TEXT ACKNOWLEDGMENTS

Unit 1, Adapted "Figure 9.51," from *Physical Geography, Second Edition*. Copyright © 1989, 1992 by West Publishing Company. Reprinted by permission of Thomson Learning.

Excerpt from "Flight of a Lifetime" by James Irwin, from *The Greatest Adventure*. Copyright © 1994 by the Association of Space Explorers.

Excerpt from "To Really See It, Leave It" by Sally Ride, from *The Greatest Adventure*. Copyright © 1994 by the Association of Space Explorers.

Unit 3, Excerpt from "Brazilian police go on trial for murder of street children" by Marina Mirabella, from CNN World News, April 26, 1996. Copyright © 1996 by Cable News Network, Inc. Reprinted by permission of Cable News Network, Inc.

Excerpt from "Hope for the no-hopers," from the *Economist*, December 23, 2000. Copyright © 2000 by the *Economist*. Reprinted by permission of the *Economist*.

Excerpt from "Rich-poor gap as wide as ever in Latin America" by Steve Gutkin, from *The Times of India Online*, September 5, 2000. Copyright © 2000 by Times Internet Limited. Reprinted by permission of Times Internet Limited. All rights reserved.

Unit 4, Excerpt from "Poland Opens Door to West, and Chills Blow Both Ways" by Edmund L. Andrews, from the *New York Times*, June 21, 1999. Copyright © 1999 by the *New York Times*. Reprinted by permission of the *New York Times*.

Excerpt from "Britain and the Single Currency," from Global Britain Briefing Note, No. 1, January 25, 1999. Copyright © 1999 by Global Britain. Reprinted by permission of Global Britain.

Unit 5, Excerpt from "Workers Bid Ill-Fated Chernobyl a Bitter Farewell" by Michael Wines, from the *New York Times*, December 15, 2000. Copyright © 2000 by the *New York Times*. Reprinted by permission of the *New York Times*.

Excerpt from "Reducing Russian Dangers," from the *New York Times*, January 21, 1999. Copyright © 1999 by the *New York Times*. Reprinted by permission of the *New York Times*.

Unit 6, Excerpt from "Cash Strapped African Leaders Beg To Be Re-Colonized" by Ron Daniels, from the *Black World Today*, August 1, 1999. Copyright © 1999 by the *Black World Today*. Reprinted by permission of the *Black World Today*.

Excerpt from "An African Success Story," from the *New York Times*, January 8, 2001. Copyright © 2001 by the *New York Times*. Reprinted by permission of the *New York Times*.

Unit 7, Excerpt from "All Sides Resist Plan by Clinton For the Mideast" by John Kifner, from the *New York Times*, December 31, 2000. Copyright © 2000 by the *New York Times*. Reprinted by permission of the *New York Times*.

Excerpt from "The Price of Peace Will Be Paid in Dreams" by John F. Kifner, from the *New York Times*, December 31, 2000. Copyright © 2000 by the *New York Times*. Reprinted by permission of the *New York Times*.

Excerpt from "A City That Echoes Eternity" by Kenneth L. Woodward, from *Newsweek*, July 24, 2000. Copyright © 2000 by Newsweek, Inc. Reprinted by permission of Newsweek, Inc. All rights reserved.

Excerpts from "City of Jerusalem," from *United Nations: General Assembly Resolution 181*, November 29, 1947. Copyright © 1947 by the United Nations. Reprinted by permission of the United Nations.

Unit 8, Excerpt from President K. R. Narayanan's state dinner toast, March 21, 2000. Copyright © 2001 by the Embassy of India, Press and Information. Reprinted by permission of the Embassy of India.

Unit 9, Excerpt from "Clinton in Hong Kong, prods China on environment," from CNN.com, July 2, 1998. Copyright © 1998 by Cable News Network, Inc. Reprinted by permission of Cable News Network, Inc.

Excerpt from "Six Billion People," from *Asiaweek.com*, October 29, 1999, Vol. 25, No. 43. Copyright © 1999 by Asiaweek. Reprinted by permission of Asiaweek.

Unit 10, Excerpt from "Record Ozone Hole Refuels Debate on Climate" by Andrew C. Revkin, from the *New York Times*, October 10, 2000. Copyright © 2000 by the *New York Times*. Reprinted by permission of the *New York Times*.

Excerpts from *Dear America, Letters Home from Vietnam* edited by Bernard Edelman. Copyright © 1985 by The New York Vietnam Veterans Memorial Commission. Reprinted by permission of Simon & Schuster.

Excerpt from "Heroes for the Planet" by Terry McCarthy, from *Time*, Apr-May 2000. Copyright © 2000 by Time, Inc. Reprinted by permission of Time, Inc.

Excerpt from "There is No Global Warming," from the American Policy Center. Copyright © 2001 by the American Policy Center. Reprinted by permission of the American Policy Center.

The editors have made every effort to trace the ownership of all copyrighted material found in this book and to make full acknowledgment for its use. Omissions brought to our attention will be corrected in a subsequent edition.

ART CREDITS

Cover front background Copyright © Orbital Imaging Corporation and processing by NASA Goodard Space Flight Center. Image provided by ORBIMAGE; **insets, top to bottom** Copyright © Hugh Sitton/Stone; Copyright © George Hunter/H. Armstrong Roberts; Copyright © James Martin/Stone; Copyright © Michael Dunning/Image Bank.

Front Matter ii-iii background Copyright © Orbital Imaging Corporation and processing by NASA Goodard Space Flight Center. Image provided by ORBIMAGE; **ii top, left to right** Copyright © Hugh Sitton/Tony Stone Images; Copyright © George Hunter/H. Armstrong Roberts; Copyright © James Martin/Tony Stone Images; **iii right** Copyright © Michael Dunning/Image Bank; **v, vi-vii background** Earth from space; **viii top** Copyright © Schafer & Hill/Tony Stone Images; **bottom** Copyright © 1994 Jeffrey Aaronson/Network Aspen. All rights reserved; **ix top** SuperStock; **bottom** Copyright © Kevin Miller/Tony Stone Images; **x top** Copyright © Loren McIntyre; **bottom** Copyright © Ary Diesendruck/Tony Stone Images; **xi top** Copyright © Eye Ubiquitous/Corbis; **bottom** Ric Ergenbright Photography; **xii top** Sovfoto/Eastfoto; **bottom** Copyright © David Sutherland/Tony Stone Images; **xiii top** Copyright © Daryl Balfour/Tony Stone Images; **center** Copyright © Mitch Reardon/Tony Stone Images; **bottom** Copyright © M. Thonig/H. Armstrong Roberts; **xiv top** Copyright © Ali Kazuyoshi Namachi/Pacific Press; **bottom** Copyright © John Egan/Hutchison Picture Library; **xv top** Copyright © Paul Harris/Tony Stone Images; **bottom** Copyright © Martin Puddy/Tony Stone Images; **xvi top** Copyright © David Ball/Tony Stone Images; **center** Copyright © Tony Stone Images; **bottom** Copyright © John Lamb/Tony Stone Images; **xvii top** Copyright © Roger Near/Tony Stone Images; **center** Copyright © Nicholas DeVore/Tony Stone Images; **bottom** Copyright © David Austen/Tony Stone Images. **xxiv** Copyright © Dani/Jeske/Animals Animals; Copyright © Patti Murray/Earth Scenes; Copyright © J. Camemolla/Australian Picture Library; Copyright © John Cancalosi/Peter Arnold Inc.; Copyright © Norman Owen Tomalin/Bruce Coleman; Copyright © Tim Flach/Tony Stone Images; **xxv top** The Granger Collection, New York; **bottom** Copyright © 2001 The New Yorker Collection from cartoonbank.com. All rights reserved.

Maps pp. A1-A25, 64, 102-115, 131, 179, 190-199, 206, 248, 262-271, 281, 322, 336-343, 357, 391, 402-413, 419, 464, 478-485, 494, 528, 542-549, 559, 596, 610-617, 624, 664, 678-687, © Rand McNally & Company.
All rights reserved.

Units Unit 1, 2-3 background Copyright © Earth Imaging/Tony Stone Images; **2 foreground** Copyright © Schafer & Hill/Tony Stone Images; **3 foreground** Copyright © Damir Sagolj/Reuters/Archive Photos; **4 background, left** MapQuest.com; **7** Copyright © Eduardo Garcia/FPG International/PictureQuest; **8** Copyright © Alan Weiner/Liaison; **10** Globe (c. 1492), Martin Benheim. Bibliotheque Nationale, Paris/Giraudon/Art Resource, New York; **11 background** Copyright © Paul Morrell/Tony Stone Images; **top left** National Oceanic and Atmospheric Administration/Department of Commerce; **12 top left** Copyright © Bob Krist/ eStock Photography/PictureQuest; **top center** Copyright © PhotoDisc/Getty Images; **13** Copyright © Erwin and Peggy Bauer/Bruce Coleman Inc.; **14 background** National Oceanic and Atmospheric Administration/Department of Commerce; **top** AP/Wide World Photos; **bottom left** Science Museum/Science & Society Picture Library, London; **bottom right** Copyright © Owen Franken/Stock Boston/PictureQuest; **26** Copyright © Paul Morrell/Tony Stone Images; **30-31 background, 31** Illustrations by Roberta Polfus; **32** Copyright © SuperStock; **33** Illustration by Stephen R. Wagner; **34-35** Illustration by Ken Goldammer; **36** Copyright © Earth Satellite Corporation/Science Photo Library/Photo Researchers Inc.; **38-39** Illustration by Roberta Polfus; **40** Copyright © Chip Hires/Liaison; **41** Copyright © HO/Reuters/Archive Photos; **42** Copyright © David Muench/Corbis; **43** AP/Wide World Photos; **44** Copyright © Jerry Hout/ Bruce Coleman Inc.; **48** Copyright © SuperStock; **50** Illustration by Stephen R. Wagner; **51** National Oceanic and Atmospheric Administration/Department of Commerce; **52 inset** Copyright © Chris Johns/Tony Stone Images; **53** Getty News Services; **59** Copyright © Vladpans/eStock Photography/PictureQuest; **60 top** Copyright © SuperStock; **bottom** Copyright © 1994 Michael Fogden/Bruce Coleman Inc./PictureQuest; **61 top insert** Copyright © 1999 Picture Finders Ltd./ eStock Photography/PictureQuest; **bottom insert** Copyright © Daniel J. Cox/ Liaison; **62** Copyright © Charlie Waite/Tony Stone Images; **63** Copyright 1993 © Richard Olsenius/Black Star/PictureQuest; **67 left** Used by permission, Utah State Historical Society. All rights reserved; **right** Copyright © Tom Till Photography; **70** Copyright © 1994 David Hiser/Photographers/Aspen/PictureQuest; **72** Copyright © Adrian Arbib/Corbis; **73** Courtesy Medmaster, Inc. Miami, Florida; **77** Copyright © Werner Forman/Corbis; **81** Copyright © 1994 Jeffrey Aaronson/Network Aspen. All rights reserved; **83** Copyright © 1960 Sergio Larrain/Manhattan Photos; **85** Copyright © D. E. Cox/Tony Stone Images; **87** Copyright © SuperStock; **88** Copyright © Earth Imaging/Tony Stone Images; **91** Copyright © SuperStock; **92** Photograph by Sharon Hoogstraten; **94 top row, pots** Copyright © 1999 Stockbyte/PictureQuest; **bicycles** Copyright © Image Club/EyeWire; **middle row, kettles and sieves** Copyright © 1999 Stockbyte/PictureQuest; **televvisions** Copyright © Digital Stock/Corbis; **stereos** Copyright © Jeffrey Coolidge/Image Bank; **bottom row, bicycle** Copyright © Image Club/EyeWire; **radios** Copyright © Digital Stock/Corbis; **VCR** Copyright © 1999-2001 PhotoDisc/Getty Images; **95 top row, bicycles** Copyright © Image Club/EyeWire; **radios and telephone** Copyright

© Digital Stock/Corbis; *bottom row, television* Copyright © Digital Stock/Corbis; *microwave* Copyright © 1999 Stockbyte/PictureQuest; *car, computer, and VCR* Copyright © 1999–2001 PhotoDisc/Getty Images.

Unit 2, 98 *top, bottom* Copyright © SuperStock; **98–99** Copyright © WorldSat International/Science Source/Photo Researchers Inc.; **99** Copyright © Joseph Sohm/ChromoSohm Inc./Corbis; **100** Copyright © Gary Braasch/Corbis; **101** *top* Copyright 1999 © Pictor International/Pictor International Ltd./PictureQuest; *bottom* Copyright © Gilles Mingasson/Liaison; **108–115** MapQuest.com; **116** Copyright © SuperStock; **117** Copyright © Mark E. Gibson; **118** *top right inset* Copyright © 1994 Jim Schwabel/Southern Stock/PictureQuest; *bottom left inset* Copyright © 2000 Jake Rajs/Tony Stone Images; *bottom right inset* Copyright © Eric Carle/Stock Boston/PictureQuest; **118–119** Copyright © SuperStock; **122** Copyright © 1998 Jim Pickerell/Stock Connection/PictureQuest; **123** Copyright © Bryan and Cherry Alexander Photography; **126** AP/Wide World Photos; **127** Copyright © Mark Wagner/Tony Stone Images; **128** Copyright © Roger Ressmeyer/Corbis; **135** Copyright © SuperStock; **137** *top, Lewis and Clark at Three Forks* (date unknown), E. S. Paxson. Mural in the Montana State Capitol. Courtesy of the Montana Historical Society. Photograph by John Reddy. Montana Historical Society #952-803; *middle* Copyright © 1999 Ewing Galloway/Index Stock Imagery/PictureQuest; *bottom, The Last Spike* (1869). William T. Garrett Foundry, San Francisco. 17 6/10" carat gold, alloyed with copper. 5 9/16" × 7 1/16" × 1/2" (shaft including head), 1/2" × 1 3/8" × 1 1/4". Iris & B. Gerald Cantor Center for Visual Arts at Stanford University. Gift of David Hewes, 1998.115; **138** *top* AP/Wide World Photos; *middle* Copyright © 1994 Dan McCoy/Rainbow/PictureQuest; *bottom* Copyright © 1999–2000 PhotoDisc/Getty Images. All rights reserved; **143** Copyright © Terry Cryer/Corbis; **144** Copyright © Mark Gibson/Corbis; **147** Copyright © Mike Magnuson/Stock Connection/PictureQuest; **148, 150–151** *background* AP/Wide World Photos; **151** *top inset, bottom inset* Library of Congress; **155** Copyright © SuperStock; **156** *left* Copyright © James P. Blair/Corbis; *right, Fathers of Confederation* (1969), Rex Woods (after Robert Harris). Oil on canvas, 61" × 36". Courtesy Rogers Communications Inc., Toronto, Canada; **158** Copyright © Kevin Miller/Tony Stone Images; **161** *left* Copyright © Allen McInnis/Liaison; *right* Copyright © 2001 Corbis; **162** Copyright © Vern McGrath/Valan Photos; **163** Copyright © David Hiser/Photographers/Aspen/PictureQuest; **164–165** *background* Copyright © Brian Sytnyk/Masterfile; **164** *left inset* Copyright © SuperStock; *right inset* Copyright © AFP/Corbis; **165** *bottom inset* Copyright © 1997 John Madere/The Stock Market; **168** Copyright © SuperStock; **169** AP/Wide World Photos; **172** Copyright © Gary Braasch/Corbis; **174** Copyright © 1999 Ann and Carl Purcell/Words & Pictures/PictureQuest; **175** Copyright © 1993 Jose Azel/Aurora; **177** *left* AP/Wide World Photos; *right* Copyright © 1999 Pictor International/Pictor International Ltd./PictureQuest; **180** Copyright © Gilles Mingasson/Liaison.

Unit 3, 186–187 *background* MapQuest.com; **186** *left* The Granger Collection, New York; *right* Copyright © Loren McIntyre; **187** Copyright © Ary Diesendruck/Tony Stone Images; **188** Copyright © Luiz C. Marigo/Peter Arnold Inc.; **189** *top* AP/Wide World Photos; *bottom* Copyright © G. Boutin/Explorer/Photo Researchers Inc.; **200** Copyright © Robert Madden/NGS Image Collection; **201** Copyright © Jerry Alexander/Tony Stone Images; **202** Copyright © 1989 M. Sutton/FPG International; **205** Copyright © 1998 Robert Caputo/Aurora; **210, 211** Copyright © Erick C. M. Fernandes/Department of Crop and Soil Sciences, Cornell University, ecf3@cornell.edu; **212** *background* Copyright © Nicholas DeVore III/Photographers/Aspen; **213** Copyright © 1999 Don Hebert/FPG International; **217** Copyright © Nigel Atherton/Tony Stone Images; **218** *top, middle* The Granger Collection, New York; *bottom* Copyright © Wesley Bocxe/Liaison; **219** *The Cry of Dolores*, Juan O'Gorman. Mural. The Granger Collection, New York; **221** Copyright © Joel Sartore/NGS Image Collection; **222** *bottom right* Courtesy of El Museo del Barrio, New York; **223** Copyright © Gordon Gahan/NGS Image Collection; **225** Copyright © Glyn Genin/Glyfada; **226** *background* Copyright © IFA Bilderteam/Leo de Wys; **227** Archive Photos; **228–229** *background* Copyright © Alain Buu/Liaison; **229** *top* Copyright © Robert Linstrom; **230** *left* The Granger Collection, New York; *right* National Museum of the American Indian; **231** *bottom left* The Granger Collection, New York; *bottom right* AP/Wide World Photos; **232** University of Chile; **233** *left* Copyright © 1996 Michele Burgess/Stock Market; *middle* Copyright © R. Gilling/Lineair/Peter Arnold Inc.; *right* Copyright © Jeff Greenberg/Peter Arnold Inc.; **235** Gustav Nacarino/Reuters/Archive Photos; **237** Copyright © Martin Wendler/Peter Arnold Inc.; **239** Copyright © Herb Zulpier/Masterfile; **240** *left* Copyright © Tim Holt/Photo Researchers Inc.; *right* Copyright © SuperStock; **241** *top* Copyright © Trip/Dinodia; *bottom* Copyright © Steve Vidler/Leo de Wys; **243** The Newberry Library, Chicago; **244** Copyright © Luiz C. Marigo/Peter Arnold Inc.; **246** Copyright © Steve Winter/NGS Image Collection; **249** Copyright © 2001 The New Yorker Collection from cartoonbank.com. All rights reserved; **250** AP/Wide World Photos; **251** Copyright © Ary Diesendruck/Tony Stone Images; *bottom inset* AP/Wide World Photos; **252** Copyright © Robert Frerck/Tony Stone Images; **253** Copyright © G. Boutin/Explorer/Photo Researchers Inc.

Unit 4, 258 Ric Ergenbright Photography; **258–259** *background* Copyright © ESA/K. Horgan/Tony Stone Images; **259** *left* Copyright © Eye Ubiquitous/Corbis; *right* Copyright © C. Liewig/Tempsort Newport Photography; **260** Copyright © Reuters NewMedia/Corbis; **261** *top* Copyright © Ferenczy/Liaison; *bottom inset* Copyright © Edmund Nägele/International Stock; *bottom* Copyright © Oliphant/Universal Press Syndicate. Reprinted with permission. All rights reserved; **272** Copyright © Pal Hermansen/Tony Stone Images; **274** Ric Ergenbright Photography; **277** Copyright © Peter Vandemark/Stock Boston/PictureQuest; **279** Copyright © Michael Busselle/Corbis; **280** Copyright © Chad Ehlers/Tony Stone Images; **282** *top* Illustration by Stephen R. Wagner; *bottom left* Copyright

© Paul Almasy/Corbis; **284** Copyright © Guido Alberto Rossi; **285** Copyright © C. T. K./Liaison; **289** Copyright © SuperStock; **291** *top, La Vierge et l'enfant entourés de cinq anges* [The Virgin and child surrounded by five angels], Sandro Botticelli. Musée du Louvre, Paris/Giraudon, Paris/SuperStock; *bottom* Copyright © Ruggero Vanni/Corbis; **293** AP/Wide World Photos; **295** Illustrations by Stephen R. Wagner; **296** *left, Idealbildnis Kaiser Karls des Großen* [Ideal portrait of Emperor Charlemagne] (1511), Albrecht Dürer. Copyright © Germanisches Nationalmuseum, Nuremberg, Germany/Lauros-Giraudon, Paris/SuperStock; *top right* Self-portrait, Leonardo da Vinci. Biblioteca Reale, Turin, Italy/Scala/Art Resource, New York; *bottom right* Detail of *Portrait of Martin Luther* (1529), Lucas Cranach the Elder. Museo Poldi Pezzoli, Milan, Italy/Bridgeman Art Library, London; **297** *left* The Granger Collection, New York; *center, Napoleon on His Imperial Throne* (1806), Jean August Dominique Ingres. Musée de l'Armée, Paris/Giraudon/Art Resource, New York; *right* Photograph by Margaret Bourke White/Life Magazine. Copyright © Time Inc.; **298** Copyright © SuperStock; **300** Copyright © Eddy Posthuma de Boer; **302** The Granger Collection, New York; **306** Copyright © SuperStock; **307** Copyright © 1995 Culver Pictures/PictureQuest; **308–309** *background* Copyright © 1983 Duomo; **308** Copyright © Delangue Christian/Liaison; **309** *top* Copyright © Ron Levy/Liaison; *bottom* Copyright © 1990 Anchorage Daily News/Liaison; **310** *center* Copyright © Ali Meyer/Corbis; *right* Copyright © Archivo Iconografico, S.A./Corbis; **311** *left* The Granger Collection, New York; *right* Copyright © Reuters NewMedia/Corbis; **312** AP/Wide World Photos; **314** *left, right* Photographs by Sharon Hoogstraten; **315** Copyright © Grant V. Faint/The Image Bank; **318** Copyright © Reuters NewMedia/Corbis; **319** *The Kosovo Maiden* (1917), Uros Predic. National Museum of Belgrade (Yugoslavia); **320** AP/Wide World Photos; **321** Copyright © AFP/Corbis; **323** Copyright © Ferenczy/Liaison; **324** Copyright © 1994 Sovfoto/Eastfoto/PictureQuest; **326** *top* Copyright © Reuters NewMedia/Corbis; *bottom* Copyright © Edmund Nägele/International Stock; **329** Copyright © Oliphant/Universal Press Syndicate. Reprinted with permission. All rights reserved.

Unit 5, 332–333 *background* Copyright © Tom Van Sant/Geosphere Project/Planetary Visions/Science Photo Library/Photo Researchers, Inc.; **332** Copyright © Fritz Dressler; **333** *left* Estate of Fitzroy Maclean; *right* Copyright © Vadim Gippenreiter; **334** Copyright © Laurent van der Stock/Liaison; **335** *top* Cartoon by Pat Bagley/Salt Lake Tribune; *bottom* Copyright © Gerd Ludwig/NGS Image Collection; **344** Copyright © 2000 Sarah Leen/Matrix; **345** Copyright © Dean Conger/NGS Image Collection; **346** Copyright © James Strachen/Getty Images; **347** *top left, right, 348* Copyright © Dean Conger/NGS Image Collection; **349** Copyright © Steve Ravmar/NGS Image Collection; **350** Sovfoto/Eastfoto; **352** Copyright © Dean Conger/NGS Image Collection; **353** *left, right* Copyright © WorldSat International, Inc.; **354** Copyright © Gerd Ludwig/NGS Image Collection; **356** Copyright © 1998 Gerd Ludwig/Visum/Saba; **361** Photograph copyright © Andy Crawford/State Historical Museum, Moscow; **362** *left* Copyright © David Sutherland/Tony Stone Images; *background right* Copyright © K. Scholz/H. Armstrong Roberts; *right inset* The Granger Collection, New York; **363** *left* Napoleon's retreat from Moscow (19th century), Adolf Northen. Sotheby's Picture Library, London; *center* Sovfoto/Eastfoto; *right* AP/Wide World Photos; **364** Copyright © 2001 Henri Cartier-Bresson/Magnum Photos; **365** Copyright © Dean Conger/NGS Image Collection; **366** *top* The Granger Collection, New York; *bottom* The Hoover Archives, RU/SU1748; **367** Copyright © Dean Conger/NGS Image Collection; **368** *background* Reuters/Archive Photos; *top right* RIA-Novosti/Sovfoto/Eastfoto; **369** *background* Stringer/Reuters/Archive Photos; *top* Copyright © Gerd Ludwig/NGS Image Collection; *bottom* Gleb Garnich/Reuters/Archive Photos; **371** Borromeo/Art Resource, New York; **372** Sovfoto/Eastfoto; **374** Copyright © Dean Conger/NGS Image Collection; **376** *clockwise from top left* Copyright © David M. Schleser/Nature's Images, Inc./Photo Researchers, Inc.; Copyright © Joyce Photographics/Photo Researchers, Inc.; Copyright © O. S. F./Animals Animals; Copyright © Catherine Karnow/Corbis; Sovfoto/Eastfoto; Sovfoto/Eastfoto; **378** Copyright © Ergun Cagatay/Tetragon; **379** Estate of Fitzroy Maclean; **380–381** *background* Copyright © James Strachan/Tony Stone Images; **380** *left* Copyright © David Rosenberg/Tony Stone Images; **381** *top* Copyright © 1997 George Steinmetz/NGS Image Collection; *bottom* Copyright © M. Thonig/H. Armstrong Roberts; **383** Map by Alex Verbitsky; **386** Reuters TV/Reuters/Archive Photos; **387** Copyright © Laurent van der Stock/Liaison; **388** Copyright © Steven Weinberg/Tony Stone Images; **390** Copyright © Mark H. Millstein/ANS/Liaison; **392** *top* Copyright © Gerd Ludwig/NGS Image Collection; **393** AP/Wide World Photos.

Unit 6, 398–399 *background* Copyright © European Space Agency/Science Photo Library/Photo Researchers, Inc.; **398** *top* Copyright © Hugh Sittton/Tony Stone Images; *bottom* R. G. V. Wendel de Joode; **399** *bottom* Copyright © Daryl Balfour/Tony Stone Images; **400** Copyright © 1968 Rene Burri/Magnum Photos; **401** *top* Copyright © Wendy Stone/Liaison; *bottom* Copyright © 1996 Alan King. National Archives of Canada, Ottawa, ref. no. R2905-116; **414** SuperStock; **416** Copyright © Christophe Ratier/NHPA/Photo Researchers, Inc.; **418** Copyright © 1988 Christopher Pillitz/Weststock; **420** Copyright © M. Thonig/H. Armstrong Roberts; **422** Copyright © Wendy Stone/Odyssey/Chicago; **423** Copyright © Bruce Davidson/Animals Animals; **424** *background* Copyright © PhotoDisc/Getty Images; **424** *foreground* Illustrations by Stephen R. Wagner; **425** *background* Copyright © PhotoDisc/Getty Images; **425** *foreground* Illustrations by Stephen R. Wagner; **426** *bottom* Copyright © Lloyd Cluff/Corbis; **432** Copyright © Werner Forman/Art Resource, New York; **433** *top left* The Granger Collection, New York; *top right* Copyright © 2001 John Moss/Black Star; **434** Copyright © Mitch Reardon/Tony Stone Images; **436** Copyright © Raffaele Ciriello; **437** *top left* Greg Marinovich; *top right, bottom* AP/Wide World Photos; **438** Copyright © Guido Alberto Rossi/The Image Bank; **440** Copyright © Rohan/Tony Stone Images; **441** Copyright © Wolfgang Kaehler; **444** *bottom, bottom inset* Copyright ©

Robert Frerck/Odyssey/Chicago; **445** Copyright © Deborah Feingold/Archive Photos; **446** clockwise from top right Copyright © Trip/Dinodia; Copyright © 1996 Christopher Liu/ChinaStock; Copyright © Trip/H. Rogers; **447** top SuperStock; bottom Copyright © Robert Frerck/Odyssey/Chicago; **449** Cartoon by Linley Sambourne (1906). Mary Evans Picture Library, London; **451** *When There is Work, the Village Expands*, Mode Muntu. Collection of Guy de Plaen; **452** Copyright © 1995 Malcolm Linton/Liaison; **453** Robert Aberman/Art Resource, New York; **455** from top to bottom The Granger Collection, New York; Copyright © Hulton/Archive Swimming Pool Database-Big Picture; The Royal Collection copyright © 2001 Her Majesty Queen Elizabeth II; Copyright © Mark Peters/Sipa Press; **456** Copyright © Robert Frerck/Odyssey/Chicago; **460** Copyright © 1968 Rene Burri/Magnum Photos; **461** Photograph by Bjorn Klingwall; **463** Copyright © Piotr Jaxa/The Rolex Awards for Enterprise; **465** Copyright © Malcolm Linton/Liaison; **467** top right Copyright © Wendy Stone/Liaison; **468** Corbis-Bettmann; **469** bottom AP/Wide World Photos; **471** Copyright © 1996 Alan King. National Archives of Canada, Ottawa, ref. No. R2905-116.

Unit 7, 474–475 background Copyright © 1995 WorldSat International and J. Knighton/Photo Researchers, Inc.; **474** left Copyright © Sylvain Grandadam/Tony Stone Images; right Copyright © Bernard Gerard/Hutchison Picture Library; **475** Copyright © Ali Kazuyoshi Nomachi/Pacific Press Service; **476** Copyright © John Egan/Hutchison Picture Library; **477** top Copyright © Robert Azzi/Woodfin Camp; bottom Mark Fiore. San Francisco, California. www.markfiore.com; **484–485** MapQuest.com; **486** Copyright © Peter Sanders; **487** Copyright © Richard T. Nowitz/Corbis; **489** Copyright © Roger Antrobus/Corbis; **490** AP/Wide World Photos; **491** Copyright © Alistair Duncan/DK Images; **493** Copyright © Nik Wheeler/Corbis; **495** Copyright © Alan Puzey/Tony Stone Images; **496** background Copyright © PhotoDisc/Getty Images; clockwise from top left Copyright © Richard T. Nowitz/NGS Image Collection; Copyright © Trip/H. Rogers; Copyright © Peter J. Ochs II; Copyright © Christopher Rennie/Robert Harding Picture Library; **497** Getty News Services, #372147_06; **503** Copyright © Nabeel Turner/Tony Stone Images; **504** Scala/Art Resource, New York; **506** Copyright © 1985 Robert Azzi/Woodfin Camp; **507** Copyright © 2001 Stern Magazine/Black Star; **508–509** background Copyright © Hugh Sitton/Tony Stone Images; **508** SEF/Art Resource, New York; **509** top SuperStock; bottom Copyright © 1995 David Hiser/Photographers/Aspen/PictureQuest; **510** AP/Wide World Photos; **511** Copyright © Ilene Perlman/Stock Boston/PictureQuest; **513, 514** AP/Wide World Photos; **515** Copyright © Trip/H. Rogers; **517** Copyright © Peter Jordan/Liaison; **518** Copyright © Leo Touchet/Woodfin Camp; **519** Copyright © Ahmad Masood/Reuters/Corbis; **521** top Copyright © ABC Basin Ajansi/Liaison; bottom AP/Wide World Photos; **524** Copyright © John Egan/Hutchison Picture Library; **525** Copyright © Thomas Hartwell/TimePix; **527** Copyright © Will Yurman/Liaison; **530** top Copyright © Ali Kazuyoshi Nomachi/Pacific Press Service; bottom Copyright © Baron Wolman; **531** Copyright © David & Peter Turnley/Corbis; **532** top AP/Wide World Photos; bottom left Corbis-Bettmann; bottom right Copyright © Dirck Halstead/Liaison; **535** Mark Fiore. San Francisco, California. www.markfiore.com.

Unit 8, 538–539 background Copyright © Earth Imaging/Tony Stone Images; **538** Copyright © Paul Harris/Tony Stone Images; **539** left Copyright © 1997 Neal Beidleman/Network Aspen; right Copyright © Dominic Sansoni; **540** Copyright © James Strachan/Robert Harding Picture Library; **541** top Copyright © Chip Hires/Liaison; bottom Copyright © 1998 Carlson/Milwaukee Journal Sentinel; **550** Copyright © Jon Sparks/Corbis; **551** Illustration by Stephen R. Wagner; **552** Digital image copyright © 1996 Corbis. Original image courtesy of NASA/Corbis; **553** Copyright © E. Valentin/Photo Researchers, Inc.; **554** inset Copyright © Dominic Sansoni; **555** Copyright © Takeshi Takahara/Photo Researchers, Inc.; **556** Copyright © Brian Vikander/Corbis; **558** Copyright © E. Hanumantha Rao/Photo Researchers, Inc.; **560–561** Copyright © David Sutherland/Tony Stone Images; **562** Copyright © Pablo Bartholomew/Liaison; inset right Copyright © St. Franklin/Magnum Photos; **568** top Corbis-Bettmann; bottom left The Granger Collection, New York; bottom right Copyright © Roderick Johnson/Images of India; **570** Copyright © 1978 Dilip Mehta/Contact Press Images/PictureQuest; **571** Copyright © Anthony Cassidy/Tony Stone Images; **572** The Art Archive/Victoria & Albert Museum, London/Eileen Tweedy. Ref. no. AA328654; **573** Copyright © Photobank Photo Library; **575** left Copyright © David Sanger/Network Aspen; right Copyright © Brecel/J. Hodalci/Liaison; **576** Copyright © Robert Nickelsberg/TimePix; **577** Copyright © Beatrice Kiener/Liaison; **578–579** background National Oceanic and Atmospheric Administration/Department of Commerce; **578** bottom Illustration by Stephen R. Wagner; **579** top Copyright © Topham Picturepoint; bottom Jim Holmes/Eye Ubiquitous; **580** Thrikheeb or “throne cover.” Wool, silk, and cotton, 152 cm x 70 cm. Private collection, Oltromare, Geneva, Switzerland. Photograph copyright © Erich Lessing/Art Resource; **581** Copyright © John Callahan/Tony Stone Images; **582** background Illustration by Stephen R. Wagner; top inset Copyright © Alison Wright/Stock Boston/PictureQuest; **583** Copyright © Barbara Bussell/Network Aspen; **584** Copyright © Nokelsberg/Liaison; **585** Copyright © Hugh Sitton/Tony Stone Images; **586** Copyright © Martin Puddy/Tony Stone Images; **587** Copyright © Pete Seaward/Tony Stone Images; **588** left Copyright © Greig Cranna/Stock Boston/PictureQuest; right Copyright © Wolfgang Kaehler/Corbis; **589** top Copyright © 1999 Pictor International/Pictor International, Ltd./PictureQuest bottom AP/Wide World Photos; **592** Copyright © James Strachan/Robert Harding Picture Library; **593** Copyright © Bruno Barbey/Magnum Photos; **595** Copyright © Jeroen Snijdera/Images of India; **598** Illustrations by Stephen R. Wagner; **599** top Courtesy David Cumming/Hodder Wayland Picture Library; bottom Copyright © Trip/H. Rogers; **600** top Copyright © Ric Ergenbright/Corbis bottom left Corbis-Bettmann; bottom right Reuters/Archive Photos; **603** Copyright © 1998 Carlson/Milwaukee Journal Sentinel.

Unit 9, 606–607 background Copyright © Tom Van Sant/Geosphere Project/Planetary Visions/Science Photo Library/Photo Researchers, Inc.; **606** SuperStock; **607** left Copyright © David Ball/Tony Stone Images; right SuperStock; **608** John Pryke/Reuters/Archive Photos; **609** top Copyright © Hugh Sitton/Tony Stone Images; bottom SuperStock; **618** SuperStock; **619** Copyright © Tony Stone Images; **621** Copyright © Keren Su/Corbis; **623** Copyright © Michael S. Yamashita/Corbis; **625** Copyright © Cynthia M. Beall/NGS Image Collection; **627** Digital image copyright © 1996 Corbis. Original image courtesy of NASA/Corbis; **628** right Copyright © 1997 Bob Sacha; **629** left NG Maps/NGS Image Collection; **630** top to bottom Copyright © Luo Wenfa/ChinaStock; Copyright © 1995 Wang Xinlin/ChinaStock; Copyright © ChinaStock; **631** Copyright © M. Bertinetti/White Star; **635** Copyright © Julian Calder/Tony Stone Images; **636** left Bibliothèque Nationale, Paris/Bridgeman Art Library, London/SuperStock; center By permission of The British Library, London; right The Granger Collection, New York; **637** left Copyright © ChinaStock; right The Granger Collection, New York; **638** top left Copyright © 1995 Christopher Liu/ChinaStock; top right The Metropolitan Museum of Art, New York. Gift of Ernest Erickson Foundation, Inc., 1985 (1985.214.99). Photograph copyright © 1986 the Metropolitan Museum of Art; center By permission of The British Library, London; bottom The Granger Collection, New York; **639** Copyright © Alain le Caroueu/Panos Pictures; **640–641** background, **641** top UPI/Corbis-Bettmann; **641** bottom Copyright © Tom Nebbia/Corbis; **642** Illustration by Patrick Whalen; **644** Copyright © Cynthia M. Beall & Melvyn C. Goldstein/NGS Image Collection; **646** AP/Wide World Photos; **647** Copyright © Bob Thomas/Tony Stone Images; **649** Copyright © Jean-Léo Dugast/Panos Pictures; **651** Copyright © Japan Archive/TimePix; **652** left The Granger Collection, New York; right Portrait of Kiseigawa of Matsubaya (c. 1796), Kitagaw Utamoro. Fitzwilliam Museum, University of Cambridge, UK/The Bridgeman Art Library, London; **653** bottom left The Granger Collection, New York; bottom right Corbis-Bettmann; **654** Copyright © 1976 Kenneth Love; **655** SuperStock; **656** left Manu Sassoonian/Art Resource, New York; right SuperStock; **657** top Werner Forman Archive/Private collection, New York/Art Resource, New York; bottom SuperStock; **660** John Pryke/Reuters/Archive Photos; **661** AP/Wide World Photos; **663** Copyright © Bzad/ChinaStock; **665** Photograph by Manabu Watabe; **668** Copyright © John Lamb/Tony Stone Images; **671** Copyright © 2000 Nick Anderson, The Washington Post Writers Group. Reprinted with permission.

Unit 10, 674 left Copyright © Tony Stone Images; right Copyright © Roger Near/Tony Stone Images; **676** Copyright © Thad Samuels/NGS Image Collection; **677** top Copyright © Sergio Dorantes/Sygma; bottom National Oceanic and Atmospheric Administration/Department of Commerce; **687** The Granger Collection, New York; **688** Copyright © David Doubilet; **690** Illustrations by Stephen R. Wagner; **691** Copyright © David Moore/Black Star; **694** AP/Wide World Photos; **695** Copyright © Denis Waugh/Tony Stone Images; **696** Copyright © Dani/Jeske/Animals Animals; Copyright © Patti Murray/Earth Scenes; Copyright © J. Carnemolla/Australian Picture Library; Copyright © John Cancelosi/Peter Arnold Inc.; Copyright © Norman Owen Tomalin/Bruce Coleman; Copyright © Tim Flach/Tony Stone Images; **698** Copyright © Walter Edwards/NGS Image Collection; **699** Copyright © Greg Taylor; **700** Australian Picture Library; **701** Copyright © U.S. Government Air Force/NGS Image Collection; **705** Copyright © Glen Allison/Tony Stone Images; **708** Copyright © W. Robert Moore/NGS Image Collection; **709** Copyright © 1984 Jonathan Kim/Liaison; **710–711** bottom background Illustration by Stephen R. Wagner; **711** top Copyright © Georg Gerster/Photo Researchers Inc.; **712** G. Burenhult Productions, Tjörnar, Sweden; **714** top Copyright © Peter Stone/Pacific Stock; center Copyright © Joe Carini/Pacific Stock; bottom Copyright © Nicholas DeVore/Tony Stone Images; **716** left Copyright © Robert Frerck/Odyssey; right Copyright © 1991 Buddy Mays/FPG International; **717** top Copyright © Orion Press/Pacific Stock; bottom Copyright © 1988 Lee Kuhn/FPG International; **718** left Copyright © D. Johanson/Institute of Human Origins; center Detail of James Cook (1776), John Webber. Oil on canvas. The Granger Collection, New York; right Copyright © Douglass Bagli/Australian Picture Library; **719** top Australian Picture Library; bottom Copyright © Christopher Arnesen/Tony Stone Images; **720** Copyright © George F. Mobley/NGS Image Collection; **721** SuperStock; **722** Australian Picture Library/NZPL; **723** AP/Wide World Photos; **726** Copyright © Thad Samuels/NGS Image Collection; **727** credit to come; **729** Copyright © David Austen/Tony Stone Images; **730** Darren Whiteside/Reuters/Archive Photos; **731** Copyright © Sergio Dorantes/Sygma; **734** Copyright © Wolfgang Kaehler; **737** top National Climatic Data Center/ NESDIS/NOAA; bottom National Oceanic and Atmospheric Administration/Department of Commerce.