



East Asia

WHY IT'S IMPORTANT —

East Asia and the United States are important trading partners. Many American companies manufacture goods in East Asia, and East Asia exports a variety of its own products to the United States. When you go shopping, notice the many items, ranging from cars and computers to clothing and furniture, that have been produced in East Asia or that are made of products exported from the region.



World Regions Video



To learn more about East Asia and its impact on your world, view the World Regions video "East Asia."



Dancer in Hong Kong

What Makes East Asia a Region?

East Asia occupies much of the Asian mainland south of Russia. China takes up four-fifths of this region. With the exception of Mongolia, the other East Asian countries—Japan, North Korea, South Korea, and Taiwan—all lie on peninsulas and islands.

Towering mountains, such as the Himalaya and the Kunlun Shan, dominate the region's western landscape. Between these two ranges lies the Plateau of Xizang, the world's highest plateau. Two major rivers—the Yellow and the Yangtze—begin on the plateau and flow down onto fertile plains in eastern China.

Vast East Asia encompasses great variety in climate and vegetation, from the subarctic forests of northern Mongolia to the tropical rain forests on China's southernmost tip. Monsoons bring rain to coastal areas each summer, but the moist winds rarely reach the region's deep interior. In this arid heartland lie the parched and windswept Gobi and Taklimakan deserts.



1

1 A snug coat warms a boy in the chill, high-elevation air of Tibet, an area in southwestern China. Often called the “roof of the world,” Tibet is perched on the lofty Plateau of Xizang, also known as the Plateau of Tibet. Valleys in Tibet are higher than the mountains of most countries.



3



2



2 Ancient limestone hills rise behind a rafter on the Li River, in southeastern China. On the raft are two large birds called cormorants, which are trained to dive for fish. Rivers and seas are important sources of food throughout East Asia.

3 Neatly terraced paddies follow the contours of steep hillsides in China. China is a huge country, but only about 10 percent of its land can be used for growing crops. Terraces allow farmers to grow rice in places that are fertile but sloping.

4 With frost on its fur, a Japanese macaque snoozes in a hot spring. Also called snow monkeys, Japanese macaques are adapted to the chilly climate of northern Japan, where cold winds scoop up moisture from the Sea of Japan and fling it back to Earth as snow.

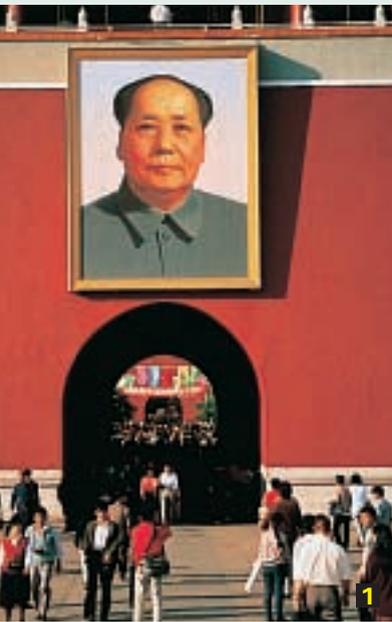
Descended from Dynasties

East Asia can trace many of its cultural features to an ancient civilization that arose in China around 2000 B.C. In the centuries that followed, powerful dynasties ruled

China, creating an enormous empire that influenced the cultural development of the entire region.

Today, East Asia is home to about one-fourth of the world's people. Most live crowded together in the region's fertile river valleys and coastal plains. Within each country, people tend to be ethnically similar.

During the twentieth century, the political and economic paths of East Asian countries diverged. China and North Korea adopted communist forms of government, while Japan, South Korea, and Taiwan developed capitalist, free-market economies.



1

1 A huge portrait of Communist leader Mao Zedong hangs above the Gate of Heavenly Peace, overlooking Tiananmen Square, in Beijing, China. In 1949 Mao stood at this site and established the People's Republic of China under Communist rule.



3



2



4

2 Built as a barrier to stop invaders from the north, China's Great Wall was started around 221 B.C., during the Qin dynasty. The wall winds for thousands of miles over plains and mountains and along desert borders. Erected entirely by hand, it is the longest structure ever built.

3 Neon lights glow as the sun sets over Tokyo, the capital of Japan. One of the largest, busiest, and most crowded cities in the world, Tokyo is Japan's center of commerce and culture. About one-fourth of Japan's population lives in the Tokyo area.

4 Standing serenely, an offshore torii, or gate, marks the entrance to one of Japan's most famous Shinto shrines. Shinto is an ancient religion that originated in Japan. Its followers worship *kami*—deities found in rivers, rocks, trees, and other elements of nature.

East Asia

PHYSICAL



Elevation Profile

CONTENTS

POLITICAL



MAP Study

1. What physical feature separates Mongolia from China in the southeast?
2. What Chinese cities are located along the Yangtze River?

East Asia

POPULATION DENSITY



ECONOMIC ACTIVITY



0 mi. 1,000
0 km 1,000
Two-Point Equidistant projection

MAP Study

1. Where is East Asia's greatest population concentration?
2. What are three important crops grown in China?

| Resources | |
|-----------|-----------|
| | Petroleum |
| | Coal |
| | Iron ore |
| | Tin |
| | Tungsten |
| | Bauxite |
| | Copper |

| Land Use | |
|----------|-------------------------|
| | Commercial farming |
| | Subsistence farming |
| | Nomadic herding |
| | Hunting and gathering |
| | Manufacturing and trade |
| | Commercial fishing |
| | Little or no activity |

East Asia

COUNTRY PROFILES

| COUNTRY * AND CAPITAL | FLAG AND LANGUAGE | POPULATION AND DENSITY | LANDMASS | MAJOR EXPORT | MAJOR IMPORT | CURRENCY | GOVERNMENT |
|--|--|--|-------------------------------------|---|---|----------------------|----------------------------|
| CHINA  Beijing |  Mandarin Chinese | 1,273,300,000 344 per sq.mi. 133 per sq.km | 3,696,100 sq.mi. 9,572,899 sq.km |  Machinery |  Machinery | Yuan | Communist State |
| JAPAN  Tokyo |  Japanese | 127,100,000 872 per sq.mi. 337 per sq.km | 145,869 sq.mi. 377,801 sq.km |  Machinery |  Manufactured Goods | Yen | Constitutional Monarchy |
| MONGOLIA  Ulaanbaatar |  Khalkha Mongol | 2,400,000 4 per sq.mi. 2 per sq.km | 604,826 sq.mi. 1,566,499 sq.km |  Copper |  Fuels | Tugrik | Republic |
| NORTH KOREA  Pyongyang |  Korean | 22,000,000 472 per sq.mi. 182 per sq.km | 46,541 sq.mi. 120,538 sq.km |  Minerals |  Petroleum | Won | Communist State |
| SOUTH KOREA  Seoul |  Korean | 48,800,000 1,274 per sq.mi. 492 per sq.km | 38,324 sq.mi. 99,259 sq.km |  Electronic Equipment |  Machinery | Won | Republic |
| TAIWAN**  Taipei |  Mandarin Chinese | 22,500,000 1,608 per sq.mi. 621 per sq.km | 13,969 sq.mi. 36,179 sq.km |  Textiles |  Machinery | New Taiwan Dollar | Republic |

* COUNTRIES AND FLAGS NOT DRAWN TO SCALE

**The People's Republic of China claims Taiwan as its 23rd province.

FOR AN ONLINE UPDATE OF THIS INFORMATION, VISIT GEOGRAPHY.GLENCOE.COM AND CLICK ON "TEXTBOOK UPDATES."

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► Women inspecting cloth in textile mill, Kyoto, Japan



GLOBAL CONNECTION

EAST ASIA AND THE UNITED STATES

ELECTRONICS



Turn on your TV, pop a tape into your VCR, play a CD on your stereo—chances are you're using a product

that was made in Japan. Japan is one of the world's leading manufacturers of electronic goods.

Not only are many of our electronic gadgets made in Japan—quite a few were also invented there. That's the case with the portable personal stereo, the small tape or CD player with the lightweight headphones that people wear just about everywhere.

It's hard to imagine that a little over 20 years ago, personal stereos didn't exist. If you wanted to listen to music, your options were limited to home stereos, bulky boom boxes, or car audio systems. And, of course, all those around you had to listen, too, whether they wanted to or not.

Akio Morita and Masaru Ibuka changed all that. These two Japanese engineers founded one of Japan's largest electronics companies. One day in the 1970s, Ibuka walked into Morita's office lugging a heavy tape recorder and a pair of big headphones—state-of-the-art equipment at the time. Ibuka explained that he loved to





▲ Personal stereos for sale in a kiosk in Japan

listen to music, but he didn't want to disturb other people. It was the clunky tape recorder and earmuff headphones, or nothing at all.

Ibuka's dilemma made Morita think more seriously about an idea he'd been considering. Why not create a small, lightweight tape player with tiny headphones, so that people could conveniently take their music everywhere without bothering others? Morita instructed his engineers to remove the recording unit and speaker from a small cassette tape player, replace them with a tiny stereo amplifier, and then develop a very compact set of headphones to go with the device.

Others at the company shook their heads, doubting that anyone would buy a tape machine that couldn't record. Still, in 1979, the first portable personal stereo hit the market. Within months, it was a runaway success. Morita's company could hardly keep pace with the demand.

Now many companies make personal stereos, which are among the most popular electronic devices in the world. This Japanese invention has changed the way people everywhere listen to music.



California surfers listening to personal stereos ►

CHAPTER

26

The Physical Geography of East Asia



GeoJournal

As you read this chapter, use your journal to note the landforms and climate regions of East Asia. Write a series of descriptive paragraphs about these geographic features. Be sure to create a vivid, detailed description of each feature.



Chapter Overview Visit the **Glencoe World Geography** Web site at tx.geography.glencoe.com and click on Chapter Overviews—Chapter 26 to preview information about the physical geography of the region.

CLICK HERE

CONTENTS

Guide to Reading

Consider What You Know

Earthquakes, volcanic eruptions, and ocean flooding occur frequently in East Asia. What geographic factors are the most likely causes of these natural hazards?

Read to Find Out

- How are East Asia's landforms affected by the region's location on the Ring of Fire?
- How do the landforms of China differ from the rest of East Asia?
- What important natural resources are present in the region?

Terms to Know

- archipelago
- tsunami
- loess

Places to Locate

- Mongolia
- Hong Kong
- Macau
- South China Sea
- Korean Peninsula
- Japan
- Pamirs
- Himalaya
- Plateau of Tibet (Plateau of Xizang)
- Tarim Basin
- Taklimakan Desert
- Gobi
- Yellow River (Huang He)
- Yangtze River (Chang Jiang)
- Xi (West) River

◀ Mt. Fuji, Japan

The Land

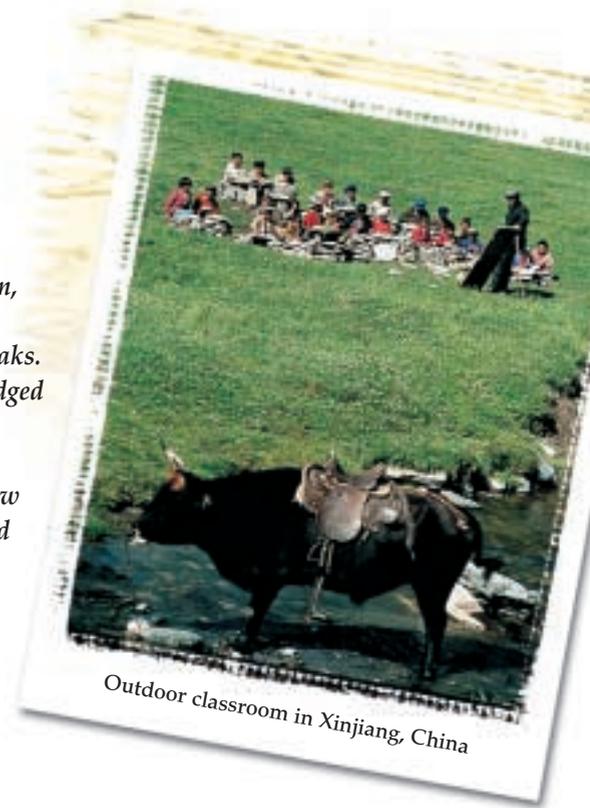
 NATIONAL GEOGRAPHIC

A Geographic View

China's Wild West

The curving road went on for another two miles across barren, rocky ground and ended at a meadow dotted with grazing yaks. We had entered a vast valley edged by a massive mountain, more shoulder than peak, its flank half-buried in sand. The meadow had been touched by spring, and at that seam of whitish sand and faint new green was a village. The low houses, strung along the base of the mountain, looked as if they had been there since the beginning of time.

—Thomas B. Allen, "Xinjiang,"
National Geographic, March 1996



The wild and varied landscape of the western Chinese province of Xinjiang (SHIHN•JYAHNG) reflects the many contrasts and paradoxes of East Asia's physical geography. East Asia encompasses high mountains, rugged highlands, long and mighty rivers, barren deserts, fertile deltas and floodplains, miles of coastline, and countless islands dotting many seas. In this section you will read about East Asia's landforms and rich natural resources.

Land and Sea

The People's Republic of China makes up about 80 percent of the land area of East Asia and has the world's largest population—about 1.3 billion people. Of the world's countries, only Russia and Canada cover more land area than China. **Mongolia**, China's northern neighbor, occupies about 13 percent of East Asia's land. Mongolia's



population is less than 1 percent of China's, making the country one of the world's most sparsely populated. The rest of East Asia is shared by the countries of Japan, Taiwan, North Korea, and South Korea. **Hong Kong** and **Macau**, two bustling ports on China's southern coast, were once European colonies and are now part of China.

Peninsulas, Islands, and Seas

Along the coast of East Asia, many peninsulas and islands dot the westernmost Pacific Ocean. These landforms divide the ocean into smaller bodies of water, including the Yellow Sea, the Sea of Japan, and the East China Sea. The **South China Sea**, stretching south from the island of Taiwan to the Philippines and the peninsula of Southeast Asia, carries one-third of the world's shipping traffic.

The **Korean Peninsula** juts southeast from China's Manchurian Plain, separating the Sea of Japan from the Yellow Sea. The peninsula, home to North Korea and South Korea, consists mainly of mountains surrounded by coastal plains.

Four large, mountainous islands and thousands of smaller ones form the **archipelago** (AHR•kuh•PEH•luh•GO), or island chain, of **Japan**. Honshu is the central and largest island, with Hokkaido to the north and Kyushu and Shikoku to the south. Most of Japan's major cities are on Honshu. Surrounding Japan are the Sea of Okhotsk on the north, the Sea of Japan and the East China Sea on the west, and the Philippine Sea on the south. On the east and south-east is the Pacific Ocean.

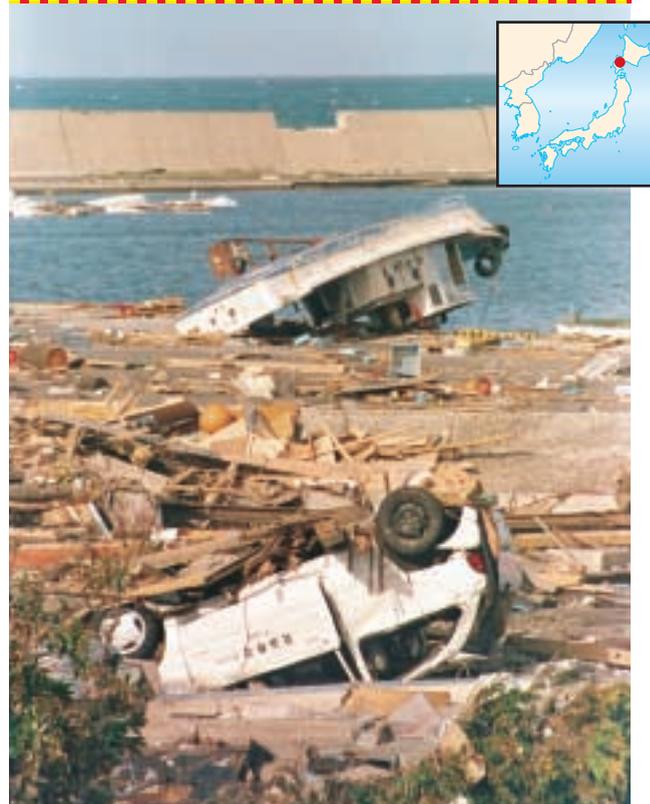
The Ring of Fire

An arc of islands east of China marks where the Pacific, Philippine, and Eurasian tectonic plates

meet. These islands are part of the Ring of Fire, a circle of volcanoes bordering the Pacific Ocean. Most of these mountainous islands, including Japan and Taiwan, were formed by volcanic activity. Plate movements there cause frequent and often violent earthquakes and volcanic eruptions. Japan has about 50 active volcanoes and numerous hot springs formed through volcanic activity.

More than 1,000 small earthquakes shake Japan every year. Major quakes occur less often, but they may cause disastrous damage and loss of life in Japan's crowded cities. When an undersea earthquake generates a **tsunami** (soo•NAH•mee)—a huge tidal wave that gets higher and higher as it

NATIONAL GEOGRAPHIC World Explorer



Geography Skills for Life

Tsunami Damage Waves as high as an eight-story building caused devastation to Okushiri, Japan, in 1993.

Region What factors make the Ring of Fire susceptible to earthquakes and volcanic eruptions?



East Asia: Physical-Political



Geography Skills for Life

1. **Interpreting Maps** What rivers flow across the North China Plain?

2. **Applying Geography Skills** How have the Yellow and Yangtze Rivers impacted the lives of the Chinese?

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approaches the coast—many lives may be lost. A tsunami that struck the Japanese island of Hokkaido in 1993 took 200 lives. Because earthquakes and tsunamis are difficult to predict, people along the Ring of Fire rely on special building methods and emergency preparedness to help reduce casualties.

Mountains, Highlands, and Lowlands

Mountain ranges and highlands mark the inland regions of East Asia. Most extremely rugged highlands areas are sparsely populated and have formed barriers to the movement of people and ideas. The

region's only extensive lowland areas are China's Manchurian Plain and North China Plain. Narrow lowland plains also line many coastal areas.

East Asian Mountains

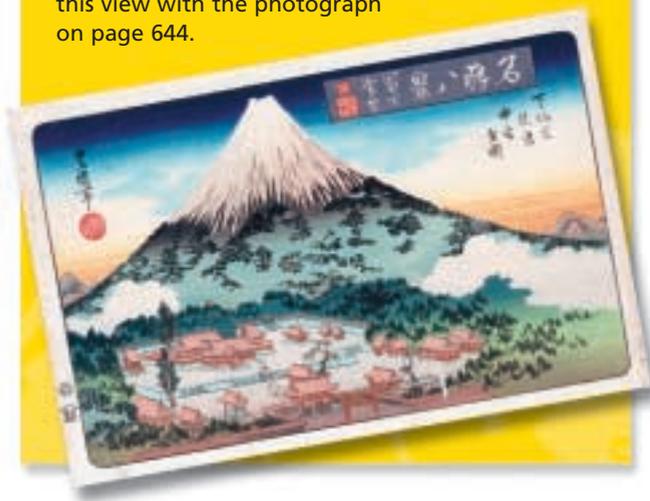
Numerous mountain ranges fan out from an area of high peaks and deep valleys called the **Pamirs** in western China. The ranges that begin in this remote interior region include the Kunlun Shan and Tian Shan. (*Shan* is Chinese for "mountains.") Farther north, the Altay Mountains form a natural barrier between Mongolia and China. To the south and west, the world's highest mountains, the **Himalaya**, separate China from South Asia. They include many peaks higher than 25,000 feet

the arts of EAST ASIA



Japanese Woodcuts Woodcut printing involves cutting a picture into a block of wood, applying ink to the surface of the cut block, and printing the picture on paper or some other surface. Japanese printmaking enjoyed a golden age around the turn of the nineteenth century.

Evening Snow, Mt. Fuji (about 1830) by Toyokuni II depicts a natural harmony within the environment that is typical of Japanese art. Compare this view with the photograph on page 644.



(7,620 m) above sea level. Mount Everest, the world's tallest peak at 29,035 feet (8,850 m), spans the border between China and Nepal.

The Kunlun Shan bends to become the Qin (CHIHN) Ling Mountains, crossing central China from west to east. To the east, the lower Changbai Mountains of Manchuria extend into the Korean Peninsula, where they are called the Northern Mountains. Coastal plains surround the high mountain interiors of Japan and Taiwan. Mount Fuji, at 12,388 feet (3,776 m), is a dramatic, cone-shaped, dormant volcano rising above the central plains of Japan's Honshu Island. Also called Fujiyama, Mount Fuji is an important spiritual symbol to Japan's people.

China's Plateaus, Basins, and Deserts

China contains the region's most diverse landforms. The **Plateau of Tibet**, in China's southwest quarter, is East Asia's highest plateau region. Because the Chinese name for Tibet is Xizang

(SHEE•ZAHNG), the plateau is also known as the Plateau of Xizang. Its average elevation is about 15,000 feet (4,600 m). Other rugged highlands stretch north and eastward at lower elevations, averaging 4,900 feet (1,494 m). In the far north, the Mongolian Plateau's extensive highlands are mostly grassy pasture, ideal for grazing. Two visitors described the vast landscape and animals:

“They appeared suddenly from a ravine, two nomad horsemen driving a herd of sheep across the path of our truck. On and on the animals came, a sea of brown, black, and white against the golden grasses of the broad plain.”

Cynthia Beall and Melvyn Goldstein, “Past Becomes Future for Mongolian Nomads,” *National Geographic*, May 1993

Broad expanses of flat wastelands, including the deserts and salt marshes of the **Tarim Basin**, lie between the Kunlun Shan and Tian Shan. West of the Tarim Basin is the **Taklimakan Desert**, a dry, sandy desert. To the northeast is another desert, the **Gobi**, whose frequent dust storms make life difficult in southern Mongolia and north central China. China's high, interior deserts are dry and cold. By contrast, the huge, fertile Sichuan Basin between the Plateau of Tibet and the North China Plain has a mild climate and long growing season, making it an important agricultural area.

River Systems

East Asia's rivers serve densely populated urban centers as transport routes. They provide hydroelectric power for energy, and the fertile soil in their basins is used for farming.

China's Rivers

China's major rivers begin in the Plateau of Tibet and flow eastward to the Pacific Ocean. The **Yellow River**, known in Chinese as Huang He (HWAHNG HUH), is northern China's major river system. This river is called “yellow” because it carries tons of fine, yellowish-brown topsoil called **loess** (LEHS), blown by winds from the western deserts into the air and water. When deposited, the rich soil—along with water from the river—makes the

North China Plain a major wheat-farming area. Also called “China’s sorrow,” the Yellow River often floods its basin. Throughout history, it has flooded large areas, killing hundreds of thousands of people.

Central China’s **Yangtze** (YANG•SEE) **River**, known in Chinese as the Chang Jiang, is Asia’s longest river at 3,965 miles (6,380 km). It flows through spectacular gorges and broad plains and empties into the ocean at Shanghai. The Yangtze, a major transport route, provides water for a large agricultural area where more than half of China’s rice and other grains grow. When completed in 2009, the river’s Three Gorges Dam will be the world’s largest dam (see the feature on pages 698–699).

The **Xi** (SHEE), or West, **River** is southern China’s most important river system. Near the ports of Guangzhou and Macau, the soil deposits of the Xi form a huge, fertile delta, one of China’s fast-developing areas.

The world’s longest artificial waterway, China’s Grand Canal, was begun in the 400s B.C. Over the centuries, the canal has been expanded and rebuilt. Today, the Grand Canal moves people and goods along a 1,085-mile (1,746-km) course from Beijing in the north to Hangzhou in the south.

Rivers in Japan and Korea

In contrast to China’s long rivers, the rivers of Japan and Korea are short and swift. They flow through mountainous terrain, often forming spectacular waterfalls. During the wet season, they provide hydroelectric power. South Korea’s chief rivers flow from inland mountains westward toward the Yellow Sea. The Han River flows through South Korea’s capital, Seoul. In North Korea the Amnok (or Yalu) River flows west, forming the border with China.

Culture

The Power of Wind and Water

For centuries East Asians have chosen building sites and designed homes using feng shui (FUHNG

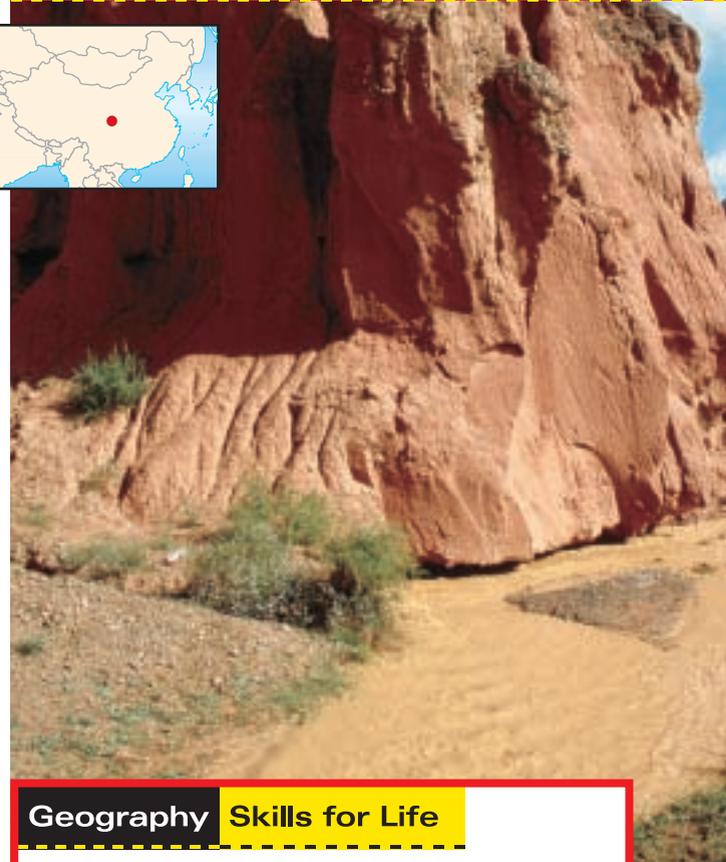
SHWAY), from the Chinese words for “wind” and “water.” By combining observations of the natural landscape with traditional spiritual teachings, the Chinese harmonize their buildings with the surrounding landforms, especially mountains and rivers. First used to locate favorable gravesites, feng shui is now used by architects, real estate agents, building contractors, and interior decorators worldwide.

Natural Resources

East Asia’s rich mineral resources are unevenly distributed. China’s huge land area contains the greatest share and widest range of minerals, including sizable reserves of iron ore, tin, tungsten, and



World Explorer



Geography Skills for Life

Yellow River Tributary A tributary of the Yellow River winds through central China, carrying the sediment that gives the Yellow River its name.

Place How do China’s rivers compare with those in Japan and Korea?

GEOGRAPHY Online

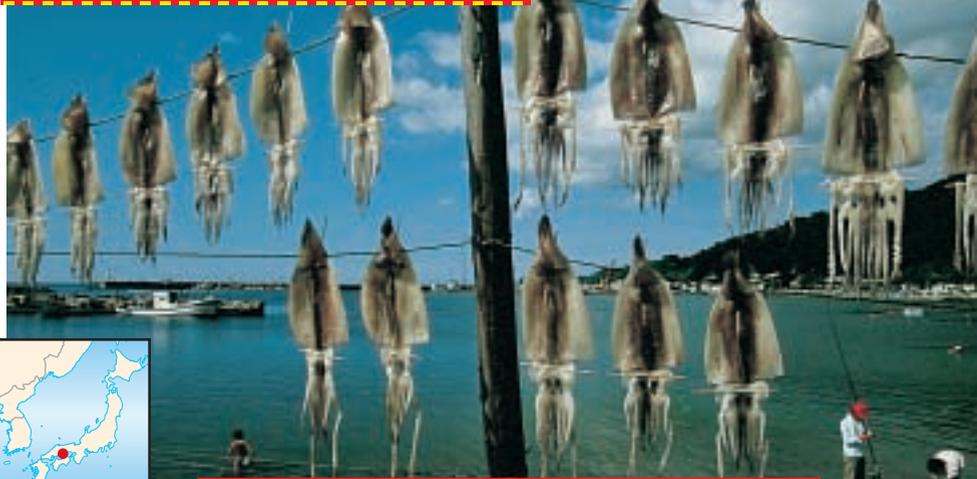
Student Web Activity Visit the **Glencoe World Geography** Web site at tx.geography.glencoe.com and click on Student Web Activities—Chapter 26 for an activity about the physical geography of East Asia.

CLICK HERE

CONTENTS

gold. Large oil deposits lie in the South China Sea and in the Taklimakan Desert in the west. Abundant coal deposits also lie in northeastern China. Coal is mined in the Korean Peninsula and Mongolia. North Korea's rich deposits of economically useful minerals include iron ore and tungsten. South Korea has relatively few mineral reserves, though large deposits of graphite are found there. Taiwan's mineral reserves are small, and its coal reserves are almost exhausted.

Productive farmlands and forests are unevenly distributed in East Asia. For example, only 10 percent of China's land is suitable for agriculture. The southern "rice bowl" yields two harvests per year, making China the world's leading producer of rice. With nearly 25 percent of its land suitable for farming, South Korea produces two crops per year, one of rice and one of barley, in the prime farmland of the coastal south. By contrast, Mongolia can use less than 1 percent of its land for crops. Japan also has very limited farmland and poor soil. Only one-fourth of Taiwan's land is suitable for farming, but every available space is planted, chiefly with rice. Taiwan has valuable forests of cedar, hemlock, and oak.



Geography Skills for Life

Squid Harvest Coastal fishers in Japan dry their squid catch in the sun.

Region Which countries have the biggest deep-sea fishing industries?

East Asia's island countries and coastal areas depend on the sea for food. Japan, South Korea, Taiwan, and China have the world's biggest deep-sea fishing industries. China alone harvests about 18 million tons (16.3 million metric tons) of fish each year. Seafood farming has become a major industry in East Asia.

TAKS Practice

SECTION 1 ASSESSMENT

Checking for Understanding

1. **Define** archipelago, tsunami, loess.
2. **Main Ideas** On a table, fill in details about major features of the physical geography for each country in East Asia.

| Area | Physical Geography |
|------|--------------------|
| | |
| | |
| | |
| | |

Critical Thinking

3. **Comparing and Contrasting** How are East Asia's coastal, island, and peninsula areas similar? How do they differ from inland areas?
4. **Drawing Conclusions** How does the technique of feng shui reflect East Asian beliefs about humans and their environment?
5. **Predicting Consequences** What consequences do you think will result from East Asia's use of its ocean resources?

Analyzing Maps

6. **Place** Study the physical-political map on page 647. How does the elevation of the North China Plain compare with that of the Plateau of Tibet?

Applying Geography

7. **Soil Building** Describe the soil-building process that takes place in northern China's Yellow River basin. How does this process influence the natural environment, the people, and economy of the area?

Guide to Reading

Consider What You Know

As you read in the last section, large areas of East Asia border the sea. How do you think climate and vegetation in coastal areas differ from those in inland areas?

Read to Find Out

- What accounts for East Asia's wide variety of climates?
- How do winds, ocean currents, and mountains influence the climates of East Asia?
- What conditions cause the extreme climates in much of China?
- What kinds of natural vegetation are found in East Asia's varied climate regions?

Terms to Know

- monsoon
- Japan Current
- typhoon

Places to Locate

- Taiwan
- Hainan
- Qin Ling Mountains

Climate and Vegetation

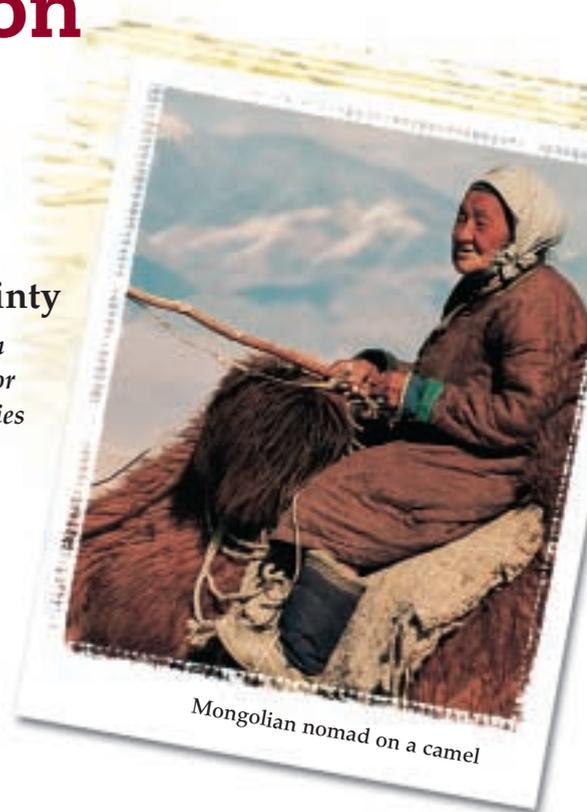


A Geographic View

Weathering Uncertainty

Of course, living with uncertain circumstances is nothing new for Mongolia's nomads. For centuries they have weathered one of the earth's harshest and least predictable environments. Winter winds at camps high in mountain valleys can howl at minus 20°F to minus 50°F, and sudden blizzards can bury pastures and starve herds.

—Cynthia Beall and Melvyn Goldstein, "Past Becomes Future for Mongolian Nomads," National Geographic, May 1993



Mongolian nomad on a camel

The nomads of Mongolia are among the few peoples who have adapted to living in East Asia's harshest climate regions. Following their herds across the high grasslands, these nomadic peoples take shelter in tentlike structures called yurts, built to be portable yet withstand the howling winter winds. Wind is a powerful force throughout East Asia, a region that depends on seasonal wind patterns for life-giving rains. In this section you will learn how physical features shape the climate and vegetation of this vast region.

Climate Regions

Latitude and physical features—such as mountain barriers, highlands, and coastal regions—shape East Asia's climates. Each climate region has distinct characteristics and unique vegetation. Dry highlands and grasslands dominate the north and west, with humid and temperate forests to the south and east.



East Asia: Climate Regions



Geography Skills for Life

1. **Interpreting Maps** Which areas of East Asia are located in the humid continental climate region?

2. **Applying Geography Skills** Why are Mongolia and parts of inland China characterized by dry steppe and desert climates?

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Mid-Latitude Climates

The southeastern quarter of East Asia, including Taiwan and parts of China, the Koreas, and Japan, has a humid subtropical climate, with warm or hot summers and heavy rains from the Pacific monsoon. In contrast, the northeastern quarter, including the northern parts of the Koreas and Japan, has a cooler, humid continental climate. Summers may be warm, but winters are cold and snowy.

Natural forests in mid-latitude climates consist of needle-leaved and broad-leaved evergreens and

broad-leaved deciduous trees. Deciduous trees and broad-leaved evergreens also flourish in the humid subtropical regions. Bamboo, a treelike grass, grows abundantly in many of the warmer areas. This tough, versatile plant has more than a thousand uses, from herbal medicine, food, and decoration to construction of homes, skyscrapers, and bridges. Bamboo also provides the only food source for two of East Asia's rare mammals, the giant panda and the smaller, raccoon-like red panda. Other economically important native plants are the





East Asia: Natural Vegetation



Geography Skills for Life

1. **Interpreting Maps** Where can tropical forest vegetation be found in East Asia?

2. **Applying Geography Skills** How does the natural vegetation of northern China compare with that of southern China?

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mulberry tree, whose leaves provide food for silkworms, and the tea bush. Bamboo, tea, and silk are significant to East Asia's culture and economy and have become identified worldwide with the region.

Desert and Steppe Climates

Far away from the moist winds of the coast, deserts spread across Mongolia and inland northern China. Moisture that might reach these areas is blocked by the rain shadow effect caused by the

surrounding mountains. Deserts are not always hot—the Gobi and Taklimakan are often cold and windy. In the northern and northwestern desert and steppe climates, temperature variation can be extreme, falling as much as 55°F (31°C) from daytime to nighttime. In the Gobi, temperatures average 73°F (23°C) in summer and 0°F (-18°C) in winter, but they may range from 100°F to -30°F (38°C to -35°C). Grasses and sparse trees are the natural vegetation of the large steppe climate east of the deserts and in most of Mongolia.

Highlands Climates

The climate in mountainous areas changes with elevation. Generally, the higher the elevation of an area, the cooler it is. East Asia's highlands climates, therefore, are usually cool or cold. On the Plateau of Tibet, with an elevation of 13,000 to 15,000 feet (3,962 to 4,572 m), the average high temperature reaches only about 58°F (14°C). Small alpine meadows with grass, flowers, and trees dot the lower mountain slopes. Above the timberline, where no trees grow, only mosses and colorful lichens thrive.

Tropical Rain Forest Climate

The island of **Hainan**, off China's southern coast, has a tropical rain forest climate. This area experiences year-round high temperatures and a very

rainy summer monsoon. In tropical areas palms and tropical hardwoods thrive alongside broad-leaved evergreens and tropical fruit trees. Lush rain forest covers much of Hainan.

History

The Roots of Rice and Soy

Rice and soybeans—two of East Asia's most important food crops—were first cultivated from wild vegetation. Archaeologists have found evidence of rice cultivation in southern China as early as 5000 B.C. It then spread north to Japan, south to Indonesia, and west to India. Rice became a major food source for China's ancient civilization as well as for others in East and Southeast Asia. Soybeans, a valuable source of protein for people and livestock, were also first cultivated in East Asia around 5000 B.C. China's ancient peoples considered soybeans one of the five foods necessary for long life.

Monsoons

In East Asia the air mass above the world's largest continent and the air mass above the world's largest ocean meet. The movement of these air masses causes prevailing winds, called **monsoons**, that bring seasonal weather patterns to East Asia. Along with inland highlands, mountains, and ocean currents in coastal areas, monsoons greatly influence East Asia's climate.

Monsoons blow in a steady direction for approximately half the year and then switch directions. The summer monsoon in East Asia blows from southeast to northwest, bearing heat and humidity from the Pacific Ocean. From April through October, especially near the coast and occasionally as far northwest as Mongolia, the winds cause intense downpours that provide more than 80 percent of the region's annual rainfall. From November to March, the winter monsoon brings cold, arctic air that usually blows from northwest to southeast. Inland, the winds tend to be dry, carrying clouds of dust from the Gobi. Along the coast, these winds pick up moisture in the Sea of Japan and bring heavy snow to Japan and the Korean Peninsula, especially in the north.

The East Asian economy depends on summer monsoons to bring the rains for crops. If the summer monsoons are late or do not bring enough rain,

 NATIONAL GEOGRAPHIC **World Explorer**



Geography **Skills for Life**

Rice Seedlings A farmer tends to rice plants in a flooded paddy.

Region How is rice important to East Asian culture?

serious crop failures may occur. Too much rain brings disastrous flooding, as occurred in 1998 in the Chinese city of Harbin:

“In north east China, Harbin . . . faced another [overflow] as the third flood crest in recent weeks swept down the Songhua River.”

“China Floods ‘Worst Ever’,”
BBC News, August 22, 1998

In some parts of East Asia, mountains weaken the effects of the monsoons. The **Qin Ling Mountains** of central China, for example, act as a clear dividing line. South of the Qin Ling, the climate is warm and humid, and rice is the chief crop. To the north the mountains block the summer monsoons, so the climate north of the Qin Ling is cooler and drier, and wheat is the chief crop. The high mountains of the eastern Korean Peninsula act as a similar barrier against the winter monsoons, giving Korea’s east coast warmer winters and lighter snowfalls.

Ocean Currents

Ocean currents, too, influence climate. Two such currents shape Japan’s climate. The warm-water **Japan Current**, or Kuroshio, flows northward along the southern and southeastern coasts of the Japanese islands and adds moisture to the winter

monsoon as it warms the land. The cold Kuril Current, or Oyashio, flows southwest from the Bering Sea along the Pacific coasts of Japan’s northernmost islands. It brings harsh, cold winters to Hokkaido’s east coast. In summer, when the cold ocean current meets the warm one near Hokkaido, a dense sea fog develops.

The interaction of ocean currents and winds frequently gives rise to violent storms called **typhoons**, which form in the Pacific and blow across coastal East Asia. Like hurricanes in the western Atlantic and Caribbean, typhoons tend to be most severe between late August and October. High winds, storm surges, and torrential rains during typhoons may cause heavy damage. Occasionally, though, a winter typhoon brings welcome rains during the normally dry part of the year.



▲ The Gobi

TX TAKS Practice

SECTION 2 ASSESSMENT

Checking for Understanding

- 1. Define** monsoon, Japan Current, typhoon.
- 2. Main Ideas** Draw a Venn diagram like the one shown below. Use it to describe the similarities and differences in climate for western and eastern parts of East Asia.



Critical Thinking

- 3. Analyzing Information** Why is Mongolia more suitable for herding than for farming?
- 4. Predicting Consequences** What economic effects would occur if the summer monsoon arrived months late in China?
- 5. Identifying Cause and Effect** How do ocean currents affect East Asia’s climate?

Analyzing Maps

- 6. Region** Compare the maps on pages 652 and 653. What kinds of vegetation characterize high latitude climates?

Applying Geography

- 7. Effects of Elevation** Write a paragraph analyzing how mountains, plateaus, and lowlands affect East Asia’s climate and vegetation.



Developing Multimedia Presentations

You can take advantage of all available technologies and media forms to create classroom presentations. A multimedia presentation can engage the senses and capture the attention of your audience.

Learning the Skill

A multimedia presentation uses several types of media to present information. These media may include audio, text, and graphics, such as slides, transparencies, animation, or videos.

Any multimedia presentation should have a definite purpose. Before you begin to develop a presentation, state the purpose briefly in one or two sentences. Identifying the purpose will guide your research and help you select the media to use.

Choosing the appropriate media from those available will help you communicate information most effectively. Showing a videotape of a graph during a presentation will probably not capture your audience's attention. An overhead transparency might be a better tool for displaying a graph. To prepare a presentation on the recent migration patterns of East Asians, for example, you might display a combination of maps and photos showing past and present migrations.

Use these questions to develop multimedia presentations:

- **What is my purpose?**
- **Which forms of media will best show the kind of information I want to present?**



- **Which media are available?**
- **What computer software programs do I need, if any?**
- **Does my computer support these software programs?**
- 3. **What are some possible advantages and disadvantages of showing a Web site during a multimedia presentation?**

Practicing the Skill

Answer the following questions about developing multimedia presentations.

1. **What media tools would be most effective for a presentation about an important leader in East Asia?**
2. **What media tools would be most effective for explaining population changes in East Asia?**

Applying the Skill

Work with a group to plan and produce a multimedia presentation on a political, economic, or social issue in an East Asian country. Use the information in this chapter, and research print and Web sources to prepare your presentation. Share each presentation with the class.



SECTION 1

The Land (pp. 645–650)

Terms to Know

- archipelago
- tsunami
- loess

Key Points

- East Asia's location at the meeting point of tectonic plates leaves the region vulnerable to earthquakes, volcanic eruptions, and tsunamis.
- The region of East Asia consists of China, Mongolia, and North and South Korea on the Asian continent, plus the island countries of Japan and Taiwan.
- East Asia's rivers provide important transportation systems and support fertile farmlands.
- East Asia is rich in minerals, but they are unevenly distributed.
- Limited farmlands, long coastlines, and large populations have made the region dependent on the sea for food.

Organizing Your Notes

Create an outline using the format below to help you organize your notes for this section.

| The Land | |
|----------|------------------------------------|
| I. | Land and Sea |
| A. | Peninsulas, Islands, and Seas |
| B. | |
| II. | Mountains, Highlands, and Lowlands |
| A. | |
| B. | |
| III. | River Systems |
| A. | |
| B. | |
| C. | |
| IV. | Natural Resources |

SECTION 2

Climate and Vegetation (pp. 651–655)

Terms to Know

- monsoon
- Japan Current
- typhoon

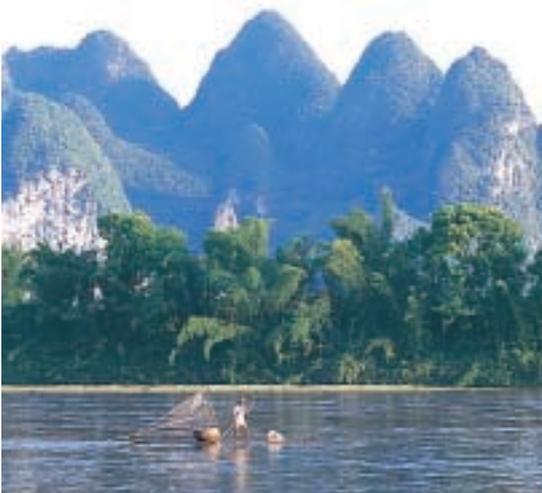
Key Points

- East Asia's natural vegetation tends to parallel the region's climate zones.
- East Asian countries rely on seasonal winds known as monsoons. The summer monsoons bring more than 80 percent of the region's rainfall.
- Ocean currents affect the climates of coastal and island regions. Powerful typhoons form in the Pacific and blow across coastal East Asia in later summer and early fall.
 - East Asia's varied vegetation includes needle-leaved and broad-leaved evergreen trees, tropical plants, bamboo, tea, mulberry trees, and grasses as well as tropical rain forest vegetation.

Organizing Your Notes

Use a table like the one below to help you organize important details from this section.

| Climate Zone | Location | Type of Vegetation |
|----------------------|----------|--------------------|
| Humid Subtropical | | |
| Humid Continental | | |
| Desert | | |
| Steppe | | |
| Highlands | | |
| Tropical Rain Forest | | |



◀ Li River, China

Reviewing Key Terms

Write the letter of the key term that best matches each description.

- | | |
|----------------|------------------|
| a. archipelago | d. monsoon |
| b. tsunami | e. Japan Current |
| c. loess | f. typhoon |

- large, fast-moving wave caused by an under-sea earthquake
- chain or group of islands
- seasonal wind
- powerful, hurricane-like storm generated in the western Pacific
- warm-water stream that affects the climate in Japan
- fine, windblown topsoil

Reviewing Facts

SECTION 1

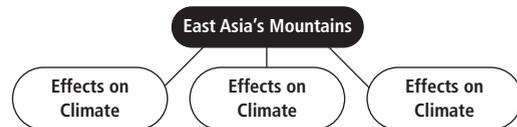
- On what landform are North and South Korea located?
- What is the largest and most densely populated of the Japanese islands?
- Describe the natural hazards that result from East Asia's location at the meeting point of three tectonic plates?
- From which part of China do most of the region's great mountain ranges extend?
- What are China's four major river or waterway systems?

SECTION 2

- Which economically important plants thrive in East Asia's mid-latitudes?
- What climate factor influences East Asia in seasonal cycles?
- How are economic activities affected by climate in East Asia?
- Which ocean current brings cold winters to Hokkaido?

Critical Thinking

- Making Generalizations** How has the uneven distribution of natural resources most likely affected the economies of countries in the region?
- Analyzing Information** Why might the countries surrounding the South China Sea compete for control of its waters?
- Identifying Cause and Effect** Use a graphic organizer like the one below to fill in the effects that mountains have on the climate of East Asia.



Locating Places

East Asia: Physical-Political Geography

Match the letters on the map with the places and physical features of East Asia. Write your answers on a sheet of paper.

- | | | |
|------------------|---------------------|-----------------------|
| 1. Yellow River | 5. Yellow Sea | 9. Taiwan |
| 2. Yangtze River | 6. Plateau of Tibet | 10. North China Plain |
| 3. Mongolia | 7. Himalaya | |
| 4. Honshu | 8. South Korea | |



Self-Check Quiz Visit the **Glencoe World Geography** Web site at tx.geography.glencoe.com and click on Self-Check Quizzes—Chapter 26 to prepare for the Chapter Test.

CLICK HERE

Using the Regional Atlas

Refer to the Regional Atlas on pages 636–639.

- 1. Region** What rivers drain the Manchurian Plain?
- 2. Location** Compare the physical and economic activity maps. What fossil fuels are found on the North China Plain?

Thinking Like a Geographer

Flooding on China's Yellow River periodically causes damage and loss of life. Use what you know about the physical geography of the region to write a paragraph explaining the causes of the flooding and suggesting possible solutions.

Problem-Solving Activity

Problem-Solution Proposal Conduct research on the growth of urbanization and manufacturing in East Asia. Analyze the effects of these processes on the climate of the region. Determine to what extent climate changes in East Asia can be related to global warming. Then prepare a proposal that suggests ways to avoid or reverse the causes or harmful consequences of climatic changes.

GeoJournal

Comparison-Contrast Essay Use GeoJournal data from this and previous units to write a descriptive essay that compares and contrasts cultural patterns of East Asia to those of two other global regions you have already studied.



Technology Activity

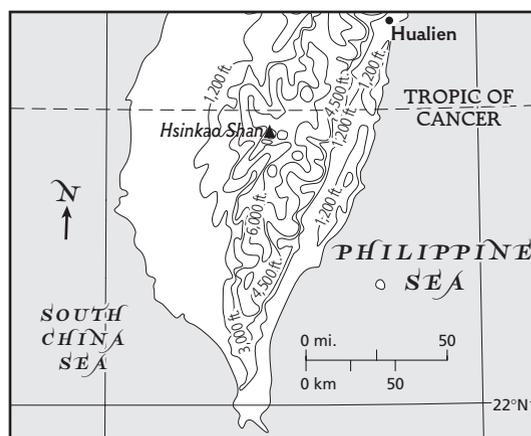
Creating an Electronic Database

Use Internet and library resources to research recent significant earthquakes, tsunamis, volcanic eruptions, and typhoons in East Asia. Use a database program to organize your data into a table with headings for location, type, and severity of each event. Then write a paragraph describing the effects of physical processes, such as the wave action of tsunamis, on the specific locations.



TAKS Test Practice

Choose the best answer for the following multiple-choice question. If you have trouble answering the question, use the process of elimination to narrow your choices.



- 1. If you were to hike straight up Hsinkao Shan, what would be the most gradual route to take?**

- A From the west
- B From the south
- C From the north
- D From the east



On a contour map, the closer the lines that show elevation (isolines), the faster the terrain rises and the steeper the topography. Where lines are far apart, the change in elevation is more gradual. To answer the question correctly, first find Hsinkao Shan on the map. Determine the side of the mountain where the lines seem farthest apart. Then choose the answer that best describes your observation. It also may be helpful to notice where the map lines are closest. You can then eliminate these choices from the answers.