The Physical Geography of East Asia
Chapter Objectives

- Identify East Asia’s varied landforms, water systems, and natural resources.

- Explain the factors that influence East Asia’s diverse climates and vegetation.
Objectives

• Describe how East Asia’s landforms are affected by the region’s location on the Ring of Fire.
• Compare the landforms of China with those in the rest of East Asia.
• List the important natural resources that are present in East Asia.
Terms to Know

- archipelago
- tsunami
- loess
A Geographic View

Outdoor classroom in Xinjiang, China
Japan is a chain of more than 3,000 islands running from Hokkaido in the north to the distant Ryukyu Islands in the south. Four main islands—Honshu, Hokkaido, Shikoku, and Kyushu—account for more than 98 percent of the total land area. At their greatest length from the northeast to southwest, the main islands stretch about 1,200 mi (1,900 km) and span 900 miles (1,500 km) from east to west. Japan has over 18,000 miles of coastline, but its total size is less than that of California.
Land and Sea

- China covers about 80 percent of East Asia’s land area and has the world’s largest population—more than 1.25 billion people.
- The rest of East Asia is shared by Japan, Taiwan, North and South Korea, and Mongolia.
- **Peninsulas, Islands, and Seas** Along the coast of East Asia, many peninsulas and islands dot the westernmost Pacific Ocean.
- The South China Sea, stretching from Taiwan to the Philippines and the peninsula of Southeast Asia, carries one-third of the world’s shipping traffic.
Land and Sea

- **The Ring of Fire** The islands of Japan and Taiwan are part of the Pacific Ring of Fire, a circle of volcanoes bordering the Pacific Ocean.
- Plate movements there cause frequent, violent earthquakes and volcanic eruptions.
- Japan has more than a thousand minor earthquakes every year.
- Japan is also vulnerable to tsunamis generated by underwater earthquakes.
- These high tidal waves crash over the land and can cause great destruction and loss of life.
Land and Sea
Mountain Highlands and Lowlands

- Mountain ranges and highlands mark inland regions of East Asia. Lowlands stretch through eastern and coastal areas.

- **East Asian Mountains**
  - From an area of high peaks known as the Pamirs, the Kunlun Shan and Tian Shan ranges extend across western China.
  - The Himalaya, the world’s highest mountains, separate China from South Asia.
  - Japan and Taiwan have mountainous interiors surrounded by coastal plains.
  - Mount Fuji is a dramatic peak rising above the central plains of Honshu, Japan’s biggest island.
Mountain Highlands and Lowlands

• **China’s Plateaus, Basins, and Deserts**
  • The Plateau of Tibet in southwest China is East Asia’s highest plateau region with an elevation of about 15,000 ft. (4,600 m).
  • The Mongolian Plateau consists mainly of grassy pastures ideal for grazing.
  • Broad, flat highlands include the Tarim Basin between China’s far inland mountain ranges; the Taklimakan Desert to its west; and the Gobi, a desert area located in the north.
  • The Sichuan Basin, a huge, fertile area between the Plateau of Tibet and the North China Plain, is one of China’s most important agricultural areas.
  • It has a mild climate and a long growing season.
River Systems

- China’s Rivers
  - China’s major rivers originate high in the Plateau of Tibet and flow eastward to the Pacific Ocean.
  - The Yellow River, or Huang He, gets its name from the tons of yellowish topsoil blown by winds from the western deserts.
  - Carried eastward and deposited by the river, this rich soil makes the North China Plain an agriculturally productive area.
  - Throughout history, flood waters have also killed hundreds of thousands of people.
River Systems
River Systems

• **China’s River Systems**
  
  • Central China’s Yangtze, or Chang Jiang, is Asia’s longest river at 3,965 miles (6,380 km).
  
  • It flows through gorges and plains and empties into the ocean at Shanghai.
  
  • The Xi, or West, River is southern China’s most important river.
  
  • It flows into the South China Sea, where it has created a huge, fertile delta.
  
  • The Grand Canal—the world’s longest artificial waterway—connects Hangzhou in the south to Beijing in the north.
River Systems

- **Rivers in Korea and Japan** Japan and Korea have short, swiftly flowing rivers with spectacular waterfalls.
- These rivers provide hydroelectric power.
- North Korea’s Amnok, or Yalu, River forms its border with China.

- **The Power of Wind and Water** The Chinese concept of *feng shui* guides architects, contractors, and decorators to design and build structures that harmonize with surrounding landforms.
Natural Resources

- **Service Industries**  More and more South Asians, especially Indians and Pakistanis, work in service industries such as transportation, banking, and administration.

- **The High-Technology Sector**  The high-technology industry has grown rapidly in South Asia.

- India, for example, is the world’s second-largest exporter of software, earning $5 billion in software trade with the United States in the year 2000.
South Asian Industries
Tourism

- South Asian countries draw millions of foreign visitors each year.
- In recent years, border disputes and ethnic and tribal conflicts have discouraged many tourists from visiting South Asia.
- Some countries restrict tourism for environmental or religious reasons.
- However, ecotourism, which requires visitors to behave responsibly toward the environment, may be a profitable alternative to such restrictions.
Tourism
People and their Environment

Section 2
Objectives

- State the reasons for East Asia’s wide variety of climates.
- Explain how winds, ocean currents, and mountains influence the climates of East Asia.
- Identify the conditions that cause the extreme climates in much of China.
- List the kinds of natural vegetation that are found in East Asia’s varied climate regions.
Terms to Know

- Monsoon
- Japan current
- Typhoon
A Geographic View

Mongolian nomad on a camel
• Mongolia is surrounded by land on all sides. It borders Russia to the north and China to the east, south, and west. About 80 percent of Mongolia’s land consists of pastures and meadows. As a result, most Mongolians are engaged in agriculture, primarily as herders. Mongolians grow some wheat and barley, but the mainstay of the economy is raising livestock.
Climate Regions

- Dry highlands and grasslands dominate East Asia’s north and west, with humid and temperate forests to the south and east.
- **Mid-Latitude Climates**
  - The southeastern quarter of East Asia has a humid subtropical climate.
  - Summers are warm, and rains are heavy.
  - The northeastern quarter has a humid continental climate, with cold, snowy winters.
  - In the eastern half of the region, forests consist of evergreen and deciduous trees.
  - Bamboo grows abundantly in warmer areas and is the only food source for rare mammals, such as giant and red pandas.
  - People in the region use bamboo in numerous ways, from medicines to material for bridges.
  - Tea and mulberry leaves also play a major role in the culture and economy of East Asia.
Climate Regions

- **Desert and Steppe Climates** Mongolia and inland northern China are very dry because the surrounding mountains block the rain.
- Gobi and Taklimakan desert areas are often cold and windy.
- Temperatures in this climate region vary greatly.
Climate Regions

- **Highlands Climates** The higher the elevation in the mountains, the colder the temperature.
- The Plateau of Tibet has an average high temperature of only 58°F (14°C).
- **Tropical Rain Forest Climate** Hainan, an island off of China’s southern coast, shares a rain forest climate with Taiwan.
- The temperatures are always warm, and the summer is very rainy.
- **The Roots of Rice and Soy** The Chinese have cultivated rice and soybeans for seven thousand years. These are the two staple foods.
Managing Natural Resources
Monsoons

- **Monsoon** winds bring seasonal weather patterns to East Asia.
- Summer monsoons blow from southeast to northwest, causing soaking rains from April to October.
- Winter monsoons blow in the opposite direction, bringing icy winds from November to March.
- Farmers depend on the summer monsoon rains for their crops.
Ocean Currents

• The warm Japan Current flows northward toward southern Japan, bringing moisture and warm temperatures.
• The cold Kuril Current flows southwest from the Bering Sea, bringing cold winds and lower temperatures to Japan’s northern islands.
• The interaction of ocean currents and monsoon winds can give rise to violent typhoons.
• Typhoons form in the Pacific Ocean and blow across coastal East Asia.
• They tend to be most severe between late August and October.
Section 1 – Summary

- 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.
Section 2 – Summary

- 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.