Name Date Class

STUDY GUIDE Chapter 23, Section 1

For use with textbook pages 569–574.

The Land

Terms to Know

subcontinent A landmass that is large and distinct but joined to a continent *(page 569)*

alluvial plain An area of fertile soil deposited by river flood waters *(page 572)*

mica A layered rock that is used in making electrical equipment *(page 574)*

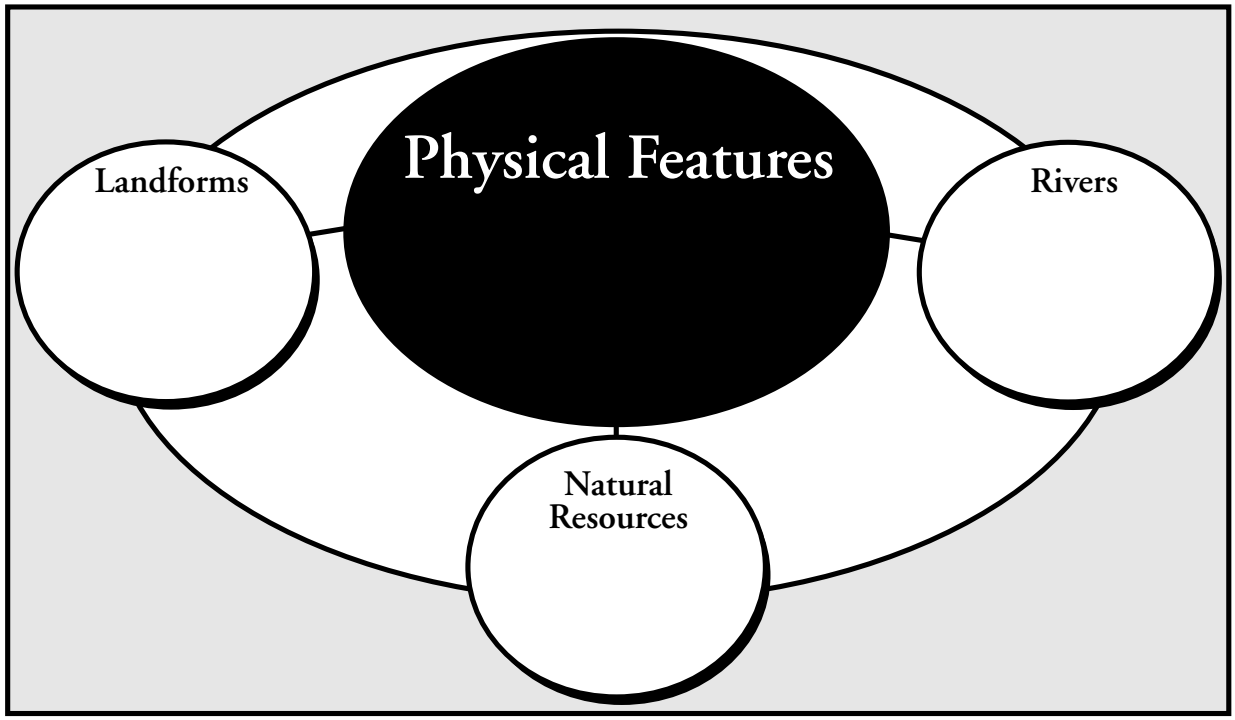
DRAWING FROM EXPERIENCE

What stories have you heard about Mount Everest? Have you ever considered the difficulty created by extreme cold and lack of oxygen in climbing the world's highest peak?

This section focuses on the physical features of South Asia.

ORGANIZING YOUR THOUGHTS

Use the web below to help you take notes as you read the summaries that follow. Think about the landforms, major rivers, and natural resources of South Asia.



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READ TO LEARN

Introduction *(page 569)*

The physical features of the region include huge mountains, rivers, and fertile plains.

1. What are some physical features of South Asia?

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_____

A Separate Land *(page 569)*

The seven countries that make up South Asia are separated from the rest of Asia by mountains. For this reason, South Asia is called a **subcontinent**—a large distinct landmass that is joined to a continent. Most of South Asia forms a large peninsula surrounded by water on three sides—the Arabian Sea to the west, the Indian Ocean to the south, and the Bay of Bengal to the east. There are many islands in the region, including the island country of Sri Lanka.

2. Why is South Asia called a subcontinent?

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_____

A Land of Great Variety *(page 570)*

About 60 million years ago, South Asia was connected to eastern Africa, but broke away from Africa and collided with the southern edge of Asia. The force of this collision created the **Himalaya** mountain ranges. The Himalaya extend more than 1,000 miles across the northern edge of the peninsula. Mount Everest is the world's highest peak and part of this range.

In the northernmost part of the region, the Himalaya meet the **Karakoram Mountains.** Farther west the **Hindu Kush** complete the wall of mountains that separate South Asia from the rest of Asia. At the foot of the Himalaya is the wide, fertile **Ganges Plain.**

The collision of the Indian subcontinent and Asia also created the **Vindhya Range** in central India. These mountains divide India into northern and southern regions with two distinct cultures.

The southern region of South Asia has two mountain chains—the **Eastern Ghats** and the **Western Ghats.** Between the two chains lies the

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rich soil of the **Deccan Plateau.** Because the Ghats prevent rainy winds from reaching the plateau, however, this area is very dry. The Karnataka Plateau south of the Deccan gets the rain instead.

The island country of Sri Lanka broke away from the original Indian landmass. Maldives is a chain of tiny coral atolls and volcanic outcroppings.

3. What landforms make up South Asia?

Major River Systems *(page 572)*

Thee major river systems flow across South Asia. These rivers carry fertile soil from mountain slopes onto their floodplains to the south.

A. The **Indus River** flows mainly through Pakistan and empties into the Arabian Sea. Peach and apple orchards lie along the river. The Indus River Valley is the site of one of the world's earliest civilizations.

B. The **Brahmaputra River** flows east from the Himalaya, then west through India and into Bangladesh. There it joins the Ganges River to form a delta before emptying into the Bay of Bengal. This river provides about 50 percent of Bangladesh's power through hydroelectricity.

C. The **Ganges River** also flows east from the Himalaya. It is South Asia's most important river. The land area through which the Ganges flows is the Ganges Plain, the world's longest **alluvial plain.** An alluvial plain is an area of fertile soil deposited by river floodwaters. The Ganges Plain is one of the world's most densely populated regions.

4. Why are South Asia's three major river systems important to the region?

Natural Resources *(page 573)*

The rivers of South Asia provide the region with alluvial soil, drinking water, transportation, fish, and hydroelectric power. Countries in the region have worked together to build dams that provide hydroelectric power and irrigation for farming. Dam projects present problems,

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however, because some people do not want their region flooded. Also dams can become clogged by a buildup of silt.

India's northwest coast has some petroleum reserves. Natural gas fields are in southern Pakistan, India's Ganges Delta, and in Bangladesh.

India is a leading exporter of iron ore and **mica**—a layered rock used in making electrical equipment. Nepal produces mica, copper, and gold. Sri Lanka's major mineral resources include graphite, sapphires, rubies, and other stones.

Timber is an important resource in South Asia. Nepal and Bhutan have fir trees and other conifers, as well as hardwoods such as oak and beech. Severe overcutting threatens Nepal's timber and may cause massive soil erosion. Nepal has started a conservation plan. India exports sandalwood, sal, and teak wood from its rain forests. To protect its rain forests, Sri Lanka bans the export of timber.

5. How do South Asians use their natural resources?

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STUDY GUIDE Chapter 23, Section 2

For use with textbook pages 575–579.

Climate and Vegetation

Terms to Know

monsoon A seasonal wind that brings warm, moist air from the oceans in summer and cold dry air from inland in winter *(page 579)*

cyclone A storm with heavy rains and high winds *(page 579)*

DRAWING FROM EXPERIENCE

Are there seasonal weather patterns in the area where you live? What are these patterns? How do the patterns affect the way you live?

In the last section, you read about the landscape of South Asia. This section focuses on the climate and vegetation of South Asia.

ORGANIZING YOUR THOUGHTS

Use the chart below to help you take notes as you read the summaries that follow. Think about how the three seasons in South Asia depend on monsoons.

South Asia's Seasons	Description

(continued)

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READ TO LEARN

Introduction *(page 575)*

Seasonal rains and winds are part of South Asia's hot climate.

1. What kind of climate does South Asia have?

_____

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South Asia's Climates *(page 575)*

The part of South Asia that lies south of the Tropic of Cancer has a tropical climate. In the north and west, the climate varies from highlands in the Himalaya to deserts around the Indus River.

A. A tropical rain forest climate with diverse vegetation covers the western coast of India, the Ganges Delta in Bangladesh, and southern Sri Lanka. Evergreen and deciduous trees grow near the Western Ghats. Forests of bamboo, mango, and palm trees grow in Bangladesh.

B. A tropical savanna climate surrounds the central Indian steppe and eastern Sri Lanka. The savanna supports grasslands and deciduous trees. Sri Lanka has evergreen and deciduous forests that become grasslands at higher elevations.

C. A humid subtropical climate extends across Nepal, Bhutan, Bangladesh, and the northeastern part of India. This climate supports a temperate mixed forest.

D. The northern edge of South Asia has highland climates that vary with the elevation. In the Himalayan highlands and Karakoram peaks, there is always snow and little vegetation. Farther down these slopes, the climate becomes more temperate with coniferous and hardwood trees and meadows. The lower Himalayan foothills support grasslands and bamboo.

E. A desert climate extends along the lower Indus River. The **Great Indian Desert** (Thar Desert) lies to the east of the Indus River. The vegetation consists of desert scrub, thorny trees, and grasses. Much of the area is a wasteland.

F. A steppe climate surrounds the desert. Few trees grow in this grassland. Another steppe area runs through the center of the Deccan Plateau between the eastern and Western Ghats.

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2. What climate regions and vegetation are found in South Asia?

Monsoons *(page 577)*

Much of South Asia has three seasons: hot (from late February to June), wet (from June or July to September), and cool (from October to late February). These seasons depend on seasonal winds called **monsoons.** During the cool season, dry monsoon winds blow from the north and northeast. When warm temperatures cause the heated air to rise, the wind changes direction. Moist ocean air then moves in from the south and southwest, bringing monsoon rains.

Monsoon rains are heaviest in eastern South Asia. When the rains come over the Ganges-Brahmaputra delta, the Himalaya block them from moving farther north. This causes the rains to move west across the Ganges Plain, bringing needed rainfall for crops. High temperatures in the region let farmers produce crops year-round. However, extreme heat can dry out the soil in areas outside the path of monsoons.

Too much rain from monsoons may cause flooding. Floods sometimes kill people and livestock or ruin homes and crops. **Cyclones**—storms with high winds and heavy rains—occasionally strike South Asia, killing people and damaging crops.

3. How are monsoons helpful and harmful to South Asia?