SECTION 2

Reading for Understanding

Key Ideas

BEFORE, YOU LEARNED

The physical geography of Southwest Asia is made up of deserts and mountains, and the region is mostly arid.

NOW YOU WILL LEARN

The physical geography of South Asia is made up of mountains, plateaus, and plains, and there are wet and dry seasons.

Vocabulary

TERMS & NAMES

subcontinent a large landmass that is part of a continent but is considered a separate region

Himalayas (HIHM•uh•LAY•uhz) the highest mountains in the world, which stretch along northern India, separating it from the rest of Asia

Mount Everest the world's tallest mountain, located in the Himalayas

Deccan (DEHK•uhn) **Plateau** a high area of land at the center of the Indian subcontinent

Indus River a river in South Asia that flows from the Himalayas to the Arabian Sea

Ganges (GAN•JEEZ) **River** a river of South Asia that flows southeast from the Himalayas to the Bay of Bengal

monsoon a seasonal wind system that produces a wet or dry period in a region

cyclone a violent storm with fierce winds that rotate in a circular pattern like a hurricane

tsunami (tsu•NAH•mee) a series of giant, destructive ocean waves caused by underwater earthquakes, volcanoes, or landslides

BACKGROUND VOCABULARY

famine a severe shortage of food that causes widespread hunger

Reading Strategy

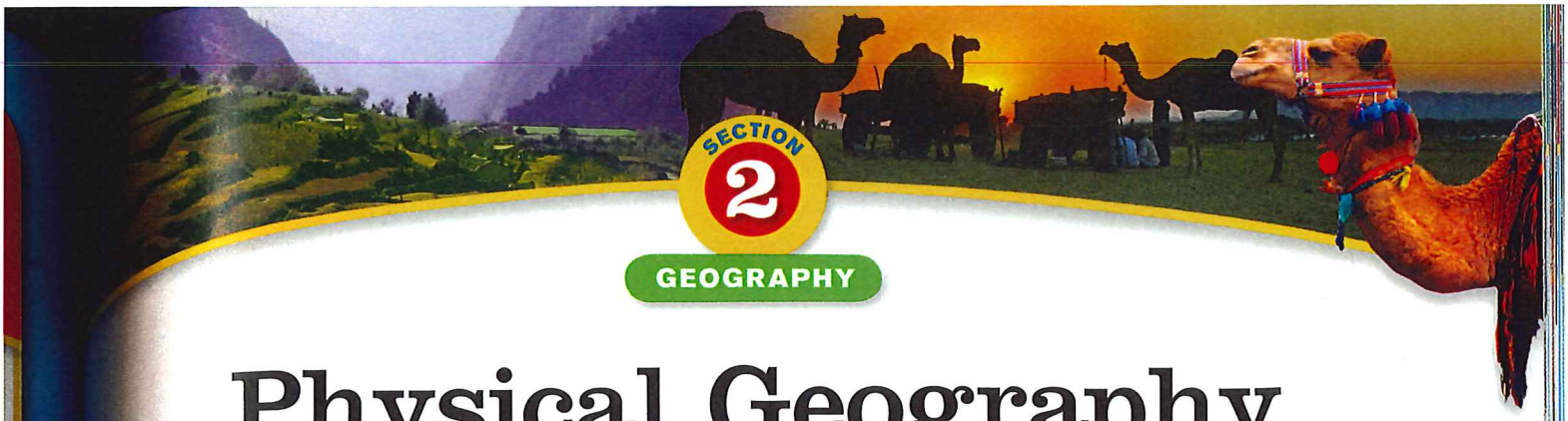
Re-create the chart shown at right. As you read and respond to the **KEY QUESTIONS**, use the chart to compare and contrast the physical geography of South Asia with that of Southwest Asia.

See Skillbuilder Handbook, page R9

COMPARE AND CONTRAST

	SOUTH ASIA	SOUTHWEST ASIA
Physical Features		
Climate		

GRAPHIC ORGANIZERS
Go to Interactive Review @ ClassZone.com



SECTION 2

GEOGRAPHY

Physical Geography of South Asia

Connecting to Your World

In many places, just five inches of rain can cause floods. In Mumbai (also known as Bombay), India, 37 inches of rain fell on July 26, 2005. Streets flooded and landslides buried neighborhoods. India has a climate with separate dry and wet seasons, but even during the wet season, 37 inches of rain in one day is rare.

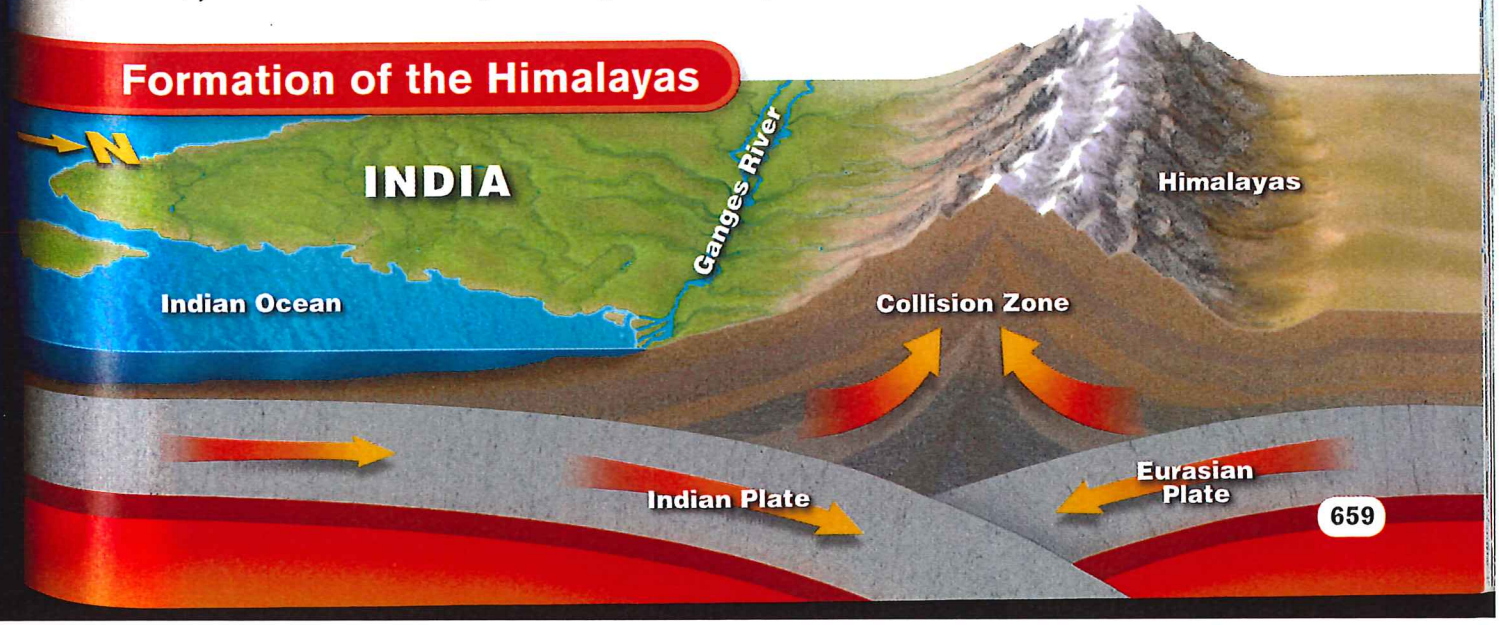
Mumbai, India Man buying vegetables from a street vendor during the 2005 monsoon

Physical Features of the Peninsula

KEY QUESTION What are the three main rivers of the Indian subcontinent?

Millions of years ago, a huge supercontinent, Pangaea, broke apart into separate continents. Scientists believe that when that happened, India became a separate landmass. Over time, it inched north until it hit Asia. The collision pushed up high mountains where the two landmasses met. Those mountains form the northern boundary of the kite-shaped Indian subcontinent. A **subcontinent** is a large landmass that is part of a continent, yet is considered a separate region or entity.

Indian Subcontinent Scientists predict that as the two tectonic plates that formed the Himalayas continue to push against each other, India will become one huge mountain range.

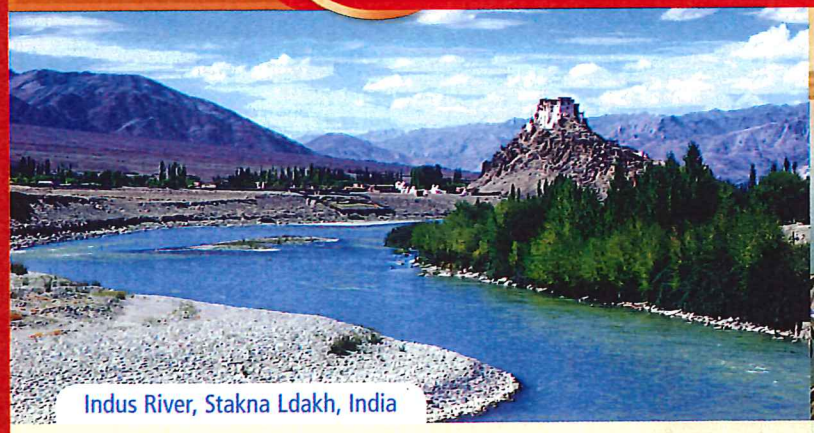


Mountains and Plateaus The mountains of South Asia include the Hindu Kush in the northwest. The **Himalayas** (HIHM•uh•LAY•uhz) extend east of the Hindu Kush. **Mount Everest** (A), the world's tallest peak, is located in the Himalayas. (See map on opposite page.)

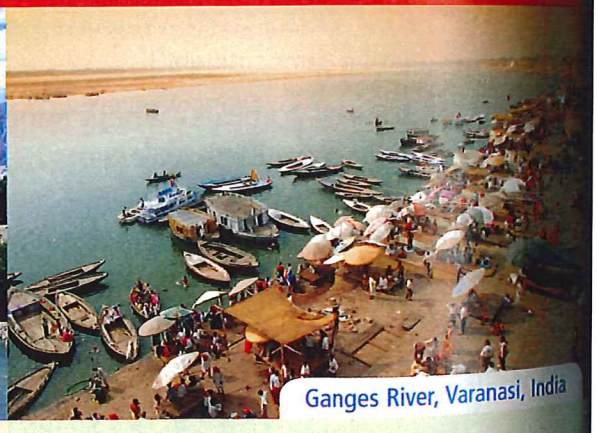
Mountains called the Western Ghats and Eastern Ghats run along India's two coastlines, which form a "V" in the south. Between them stretches an area of high land called the **Deccan Plateau** (B). It is a largely arid region. One of the world's largest deserts, the Thar Desert, lies northwest of the Deccan.

Bodies of Water and Islands The Arabian Sea borders India's west coast and the Bay of Bengal borders the east. Both are part of the Indian Ocean, which lies to the south. Several rivers water the subcontinent. In the west, the **Indus River** (C) runs from the Himalayas to the Arabian Sea. The **Ganges** (GAN•JEEZ) **River** (D)—one of the largest, most important rivers of India—flows from the Himalayas to the Bay of Bengal. The Brahmaputra (BRAH•muh•POO•truh) River (E) also starts in the Himalayas, but it joins the Ganges before reaching the bay. Together, the rivers have deposited silt and created an immense fertile delta in what is now Bangladesh (BAHN•gluh•DEHSH).

COMPARING River Systems



Indus River, Stakna Ldakh, India



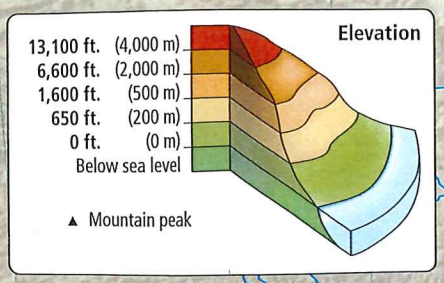
Ganges River, Varanasi, India

	INDUS RIVER	GANGES RIVER
Source	the Himalayas	the Himalayas
Route	mostly south through Pakistan	mostly southeast through India
Length	1,800 miles	1,560 miles
Destination	Arabian Sea	Bay of Bengal

CRITICAL THINKING

Compare What do the two rivers have in common?

Physical Geography of South Asia



TURKMENISTAN
TAJIKISTAN
CHINA
HINDU KUSH
KARAKORAM RANGE
Disputed border
Disputed border
Khyber Pass
AFGHANISTAN
HIMALAYAS
Mt. Everest 29,035 ft. (8,850 m.)
Indus River
PAKISTAN
Thar Desert
INDO-GANGETIC PLAIN
NEPAL
BHUTAN
Ganges River
Brahmaputra River
Tropic of Cancer
BANGLADESH
MYANMAR
Narmada River
INDIA
Ganges Delta
Godavari River
THAILAND
DECCAN PLATEAU
GHATS
Bay of Bengal
Arabian Sea
Krishna River
WESTERN GHATS
EASTERN
SRI LANKA
INDIAN OCEAN
MALDIVES
0 150 300 miles
0 150 300 kilometers
0° Equator
70°E
80°E
90°E
40°N
30°N
20°N
10°N

CONNECT
Geography & Culture
READING A PHYSICAL MAP

Physical geography maps show landforms and bodies of water. When reading a physical map, use

- the scale to estimate distance across India at its widest point
- the legend to identify elevation of regions and major mountain peaks in the Himalayas

1. **Location** Into what body of water does the Indus River flow?
2. **Movement** What barriers restrict movement into the Indian subcontinent?

Two island nations lie off India's coast. To the southeast is Sri Lanka, a tropical island with some mountains. To the southwest is a group of islands called the Maldives, flung over 500 miles of ocean. The Maldives are made of reefs, ridges of coral formed on the slopes of undersea volcanoes. They barely rise above the water's surface.

SUMMARIZE List the three main rivers of the Indian subcontinent.

Extreme Weather and Natural Disasters

KEY QUESTION What are some natural disasters in South Asia?

Floods are common in South Asia. Even though the climate has wet and dry seasons, no one can predict yearly rainfall. The variable rainfall sometimes causes problems.

Monsoons India's climate is affected by monsoons. A **monsoon** is a seasonal wind system that produces wet and dry seasons. In India, winter winds blow from the northeast and cross vast stretches of land and high mountains before reaching India. As a result, the winter monsoon is dry. Summer winds blow from the southwest and cross the Indian Ocean, so they pick up moisture and bring rain.

If the summer monsoon brings too much rain, floods occur. But that is not the only danger. A drought can result if the monsoon has failed to bring normal levels of moisture. Drought can lead to **famine**, a severe shortage of food that causes widespread hunger.

ANALYZING Primary Sources

Associated Press Newspapers cover disasters as they are happening. This story tells of monsoon flooding in India.

> *August 16, 2002* **Monsoon rains have sent India's Brahmaputra River surging from its channel, swallowing up villages, drowning hundreds of people and leaving millions homeless. . . . Annual monsoon flooding has wreaked havoc across South Asia, killing more than 900 people in India, Bangladesh, and Nepal since June and displacing or trapping about 25 million more.**
>
> Source: *The Associated Press*

DOCUMENT-BASED QUESTION

Why might rain in the Himalayas contribute to flooding in Bangladesh?

Another kind of weather that causes hardship and destruction is a **cyclone**, a violent storm with fierce, rotating winds, similar to a hurricane. Cyclones can form in the ocean and then blow ashore. In 1970, a severe cyclone hit Bangladesh, and about 300,000 people were killed.

Natural Disasters India became part of Asia when one great landmass collided with another. Those two plates of Earth's crust are still pushing against each other, which makes South Asia prone to earthquakes. In October 2005, an earthquake that measured 7.6 on the Richter scale rocked Kashmir. Many buildings collapsed or were buried by landslides. About 75,000 people died.

Earthquakes in the ocean floor can lift part of Earth's crust, shifting a huge amount of seawater. The result is a **tsunami**, a series of giant ocean waves that wash over coastal areas. In December 2004, a powerful undersea earthquake occurred in the Indian Ocean near Indonesia. This triggered a tsunami that raced west across the ocean and caused damage in 12 nations, including a number in South Asia. The waves left destroyed villages, ruined fields, and dead bodies. An estimated 300,000 people died.

2004 Tsunami Aerial photo shows damage caused by the 2004 tsunami to a seaside town in Sri Lanka.

CATEGORIZE List some natural disasters in South Asia.

ONLINE QUIZ
For test practice, go to **Interactive Review** @ClassZone.com

Section 2 Assessment

TERMS & NAMES

1. Explain the importance of

- Himalayas
- Ganges River
- cyclone
- tsunami

USE YOUR READING NOTES

2. Compare and Contrast Use your completed chart to answer the following question:

What are some of the differences between South and Southwest Asia in terms of physical features and climate?

	SOUTH ASIA	SOUTHWEST ASIA
Physical Features		
Climate		

KEY IDEAS

3. Why is India considered a subcontinent?

4. Why is the winter monsoon dry and the summer monsoon wet?

5. Why is South Asia so prone to earthquakes?

CRITICAL THINKING

6. Make Inferences How might farmers in a monsoon climate plan their work around the seasons?

7. Evaluate What might be some advantages and disadvantages of living in Bangladesh?

8. CONNECT to Today Many scientists claim that the global climate is getting warmer and polar icecaps might melt, raising the level of the oceans. Predict how that might affect the Maldives and Bangladesh.

9. WRITING **Write an Appeal** Review the descriptions of the disasters in this section. Choose one disaster, and imagine that you work for a relief agency such as UNICEF. Write an appeal or advertisement asking for aid for the victims.

Animated GEOGRAPHY

Monsoons

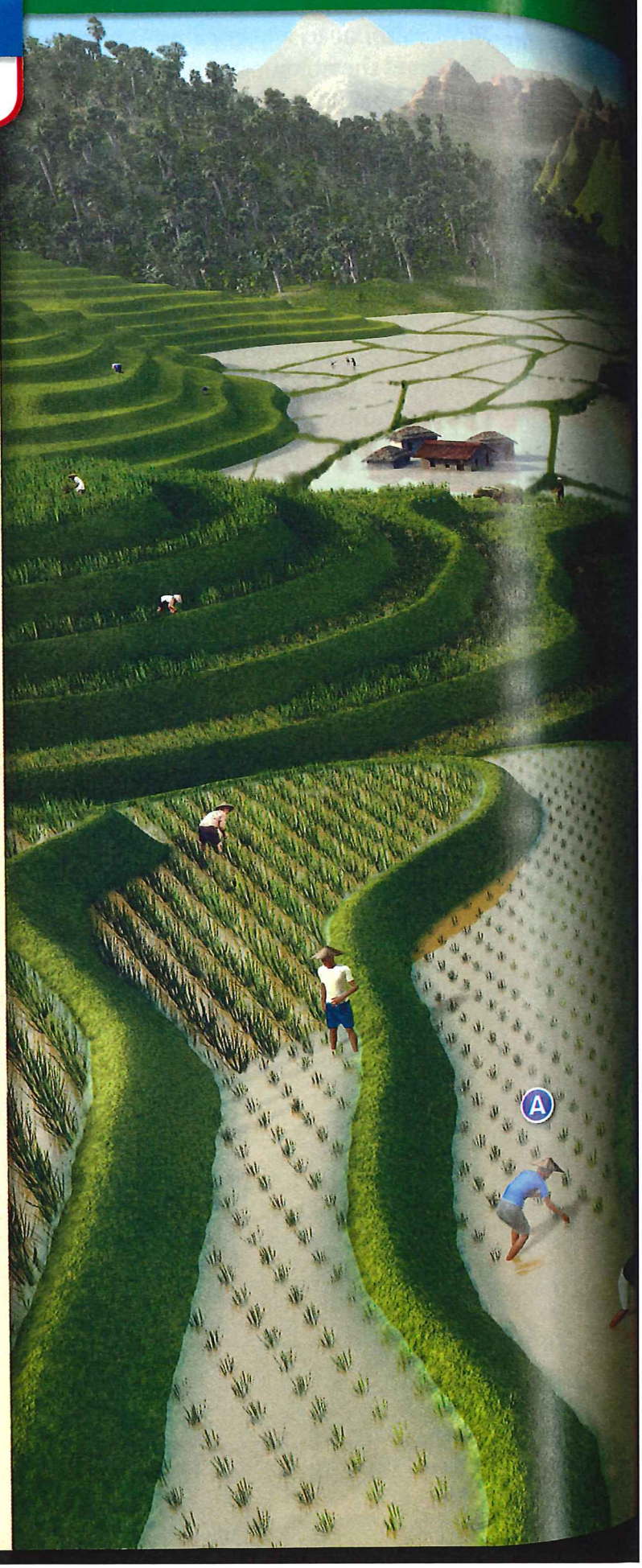
Click here to explore the effects of monsoons @ ClassZone.com

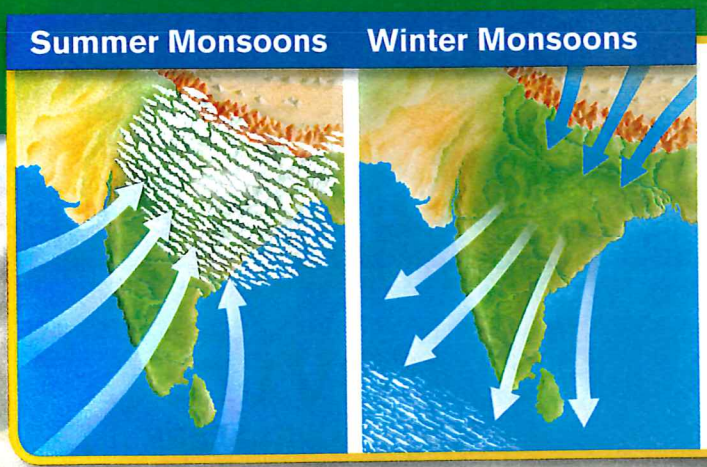
LIVING WITH EXTREME WEATHER

Monsoons shape the lives of people in South Asia. If the summer monsoons bring the right amount of rain, then crops grow and there is a good harvest. If monsoons bring too much rain, then crops are flooded and the harvest is spoiled. The illustration at right shows both positive (near right) and negative (far right) effects of summer monsoons.

Click here to see how Asia benefits from summer monsoons. Learn how monsoons provide relief from months of scorching heat. Rain helps crops to grow (as shown above in a rice field), nourishes the rain forest, and produces floodwaters that deposit sediment to replenish the soil. A

Click here to witness the harmful effects of summer monsoons. See how too much monsoon rain causes floods that ruin crops and lives. B





The summer and winter monsoons of South Asia blow from different directions. The summer monsoons blow from the southwest and the winter monsoons from the northeast.

- The summer monsoons are wet winds.
- The summer monsoons pick up water from the ocean.
- The winter monsoons are dry winds.
- The winter monsoons blow dry and cool because they cross the Himalayas.

B

GeoActivity

Make a Poster Working with a partner, use the Internet to research summer monsoons. Create a poster showing ways of coping with flooding from monsoon rains, such as disaster shelters. Add a map showing the extent of monsoons in South Asia. Write a paragraph explaining how summer monsoons affect the people of the region.