

Read about the powerful weather system known as a monsoon. Then answer the questions that follow.

## The Power of the Monsoon

1 Every year, great rains drench southern Asia. India is especially affected by these rains. Some regions in India receive over 400 inches of rain in one month! This natural phenomenon is called a *monsoon*. The word *monsoon* is derived from the Arabic word *mawsin*, which means season. The term *monsoon* refers to these seasonal rains and the entire cycle that causes them. A monsoon is not an ordinary storm—it affects millions of people and many countries.

### Understanding the Causes

2 No one fully understands the causes of monsoons, but researchers do have clues. To understand the way that monsoons are formed, you must remember a few basic facts:

1. Land tends to absorb sunlight, while the ocean tends to reflect it.
2. Warm air rises.
3. Air always flows from a cool place to a warm place.
4. Cool air cannot hold much moisture.

3 During summers in India, the air above the land is drier and warmer than the air above the ocean. As the dry, warm air over the land rises, the cool, moist air over the ocean rushes inland to replace it. Gradually, the cool air warms and rises, too. It continues to move inland as it rises, slowly cooling as it goes. When it reaches the Himalaya Mountains on the border of India, this air is forced even higher and grows even cooler. Remember that cool air cannot hold moisture very well. So, before the air continues over the Himalayas as wind, the moisture in it condenses and falls to the ground as rain.

### Preparing for the Rains

4 Like earthquakes, monsoons are difficult to predict. Usually, the Asian monsoons last from May until August in the southwestern region, and from November until March in the northeastern region. However, scientists are interested in making more precise monsoon forecasts because monsoons deeply affect the lives and livelihoods of many people.

5 Scientists are making progress in this area. They have discovered that the changes in air flow occur at a different time each year, making it hard to predict the exact start of the monsoon season. Yet, by studying satellite images, scientists have also learned that there are many storms right before the beginning of the monsoon season. Now researchers can at least watch for these storms to help predict monsoons.

### Main Effects

6 Almost half of the world's population lives in areas affected by monsoons. Many of these people depend on farming, and their crops depend on the monsoon rains. In fact, monsoons determine the work calendar for many farmers in India. Work is slower in the burning heat before the monsoons, when the temperatures can reach 115 degrees Fahrenheit. When the rains start, farm work begins. Farmers prepare the soil for planting. This soil helps grow the food that the people of India eat. Without the rains to help the crops, many people would starve.

- 7 The monsoons are also responsible for 90 percent of India’s water supply. Without the water from monsoons, many people would die of thirst. On the other hand, too much rain can be a problem. Heavy rains can lead to flooding. In 1998, for example, a flood in China caused more than 3,700 deaths and \$30 billion in damage.
- 8 Monsoon weather affects more than southern Asia. It disrupts climates all over the world. Monsoon seasons have led to droughts in Australia and Indonesia and flooding in South America and the southeastern United States. Smaller monsoons also take place in Africa and northern Australia.
- 9 Since monsoons are widespread and have profound effects, it is important that scientists continue to learn more about them. Their research will better prepare people for the remarkable seasons of rain that can bring disaster but also sustain life.

### The Approaching Rain

A strong wind approaches from the north,  
As dark gray clouds swirl in the sky.  
The mango tree sways back and forth.  
The falling leaves begin to fly.

I wrap my cloak around my chest,  
And stare at the sky in a moment of fear.  
Again, our village will face the test,  
From the rains that visit us every year.

Houses might topple and trees might fall,  
But flowers will bloom and crops grow tall.  
When the pouring rain drenches the land,  
Destruction and growth go hand in hand.



Standard 7.5g

1. Which sentence tells what the third verse of the poem is mostly about?

- A A heavy rain causes a flood.
- B Farmers benefit from the rain.
- C The air is calm after a bad storm.
- D Rain causes both destruction and life.

Standard 7.5c

2. In the poem, which words tell the reader that the rain is probably a monsoon rain?

- A “pouring rain”
- B “falling leaves”
- C “that visit us every year”
- D “as dark gray clouds swirl”

Standard 7.7c

3. Which idea appears in *both* the passage and the poem?

- A People fear the monsoons.
- B India’s water supply comes from the monsoons.
- C The monsoons can be both harmful and helpful.
- D The monsoons disrupt climates all over the world.

Standard 7.4b

4. Which of the following relationships is *most* similar to the relationship below?

**drought : rain**

- A famine : food
- B ocean : water
- C monsoon : sunlight
- D season : cycle

Standard 7.5e

5. Why does moisture in the air condense and become rain before continuing over the Himalayas as wind?

- A The air has cooled, and cool air holds moisture well.
- B The air has warmed, and warm air holds moisture well.
- C The air has cooled, and cool air does not hold moisture well.
- D The air has warmed, and warm air does not hold moisture well.

Standard 7.6c

6. Which of the following sentences from the passage expresses an *opinion*?

- A “Land tends to absorb sunlight, while the ocean tends to reflect it.”
- B “In 1998, for example, a flood in China caused more than 3,700 deaths and \$30 billion in damage.”
- C “During summers in India, the air above the land is drier and warmer than the air above the ocean.”
- D “Since monsoons are widespread and have profound effects, it is important that scientists continue to learn more about them.”

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Standard 7.5c

7. The author writes that monsoons “have profound effects.” How does the word profound help the reader understand a monsoon?

- A The word explains the monsoon’s rarity.
- B The word explains the monsoon’s power.
- C The word explains the monsoon’s causes.
- D The word explains the monsoon’s patterns.

Standard 7.6f

8. Which of the following would be another good subtitle for the “Understanding the Causes” section?

- A Monsoons in India
- B How Monsoons Form
- C Basic Facts About Rain
- D Air, Land, and Moisture

Standard 7.4a

9. In which word do the letters pre- mean the *same* as in the word predict in paragraph 5?

- A precaution
- B press
- C pretty
- D prey

Standard 7.5e

10. According to information in the passage, which of the following probably contributes to the formation of monsoons?

- A Hot summer air warms the land.
- B Hot summer air dries out the soil.
- C Storms precede the monsoon season.
- D Warm breezes blow from the mountains.