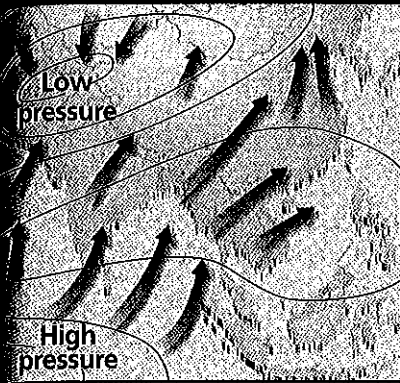
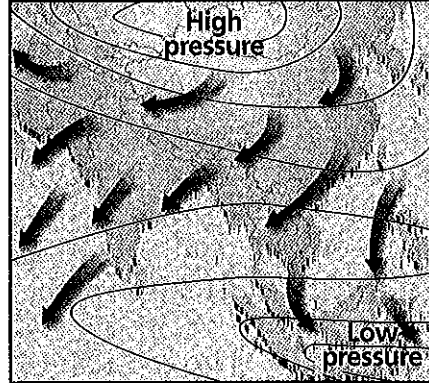


Summer Monsoon



Winter Monsoon



Seasonal Winds A seasonal change in wind patterns can affect precipitation. These seasonal winds are similar to land and sea breezes, but occur over a wider area. Sea and land breezes over a large region that change direction with the seasons are called **monsoons**. What produces a monsoon? In the summer in South and Southeast Asia, the land gradually gets warmer than the ocean. A “sea breeze” blows steadily inland from the ocean all summer, even at night. The air blowing from the ocean during this season is very warm and humid. As the humid air rises over the land, the air cools. This causes water vapor to condense into clouds, producing heavy rains.

Thailand and parts of India receive much of their rain from the summer monsoons. These rains supply the water needed by rice and other crops. Monsoon winds also bring rain to coastal areas in West Africa and northeastern South America.

Regions affected by monsoon winds receive very little rain in winter. In the winter, the land cools and becomes colder than the ocean. A “land breeze” blows steadily from the land to the ocean. These winds carry little moisture.



Reading Checkpoint

Why does precipitation fall mainly on the windward sides of mountains?



FIGURE 5
Monsoons

In a summer monsoon, wind blows from the ocean to the land. In the winter, the monsoon reverses and blows from the land to the ocean. Summer monsoons in Nepal cause heavy rain (above).

Hot, dry air

The descending air has little moisture. The dry air warms up as it sinks.