

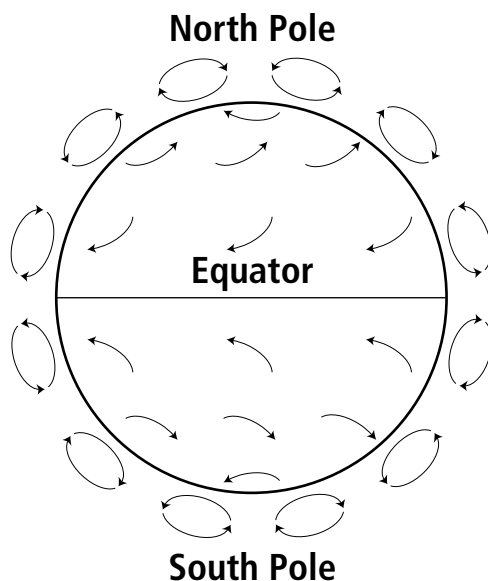
Global and Local Winds, Page 1



Wind is the horizontal movement of air. All wind is caused by the uneven heating of Earth's surface, which sets convection currents in motion. Convection currents on a large scale cause global winds; convection currents on a small scale cause local winds.

Global Winds

Earth's curved surface causes some parts of Earth to receive the Sun's rays more directly than other parts. For example, the Sun shines more directly on the surface at the equator than at the poles. As the warmer air over the equator rises, colder air from the poles rushes toward the equator to take its place. This steady exchange of warm and cold air that occurs between the equator and the poles produces global wind belts. Earth's rotation causes the direction of the winds to bend slightly: toward the right in the Northern Hemisphere and toward the left in the Southern Hemisphere. Global winds push air masses around Earth and bring changes in the weather. In the United States, global winds called the prevailing westerlies push air masses from west to east.

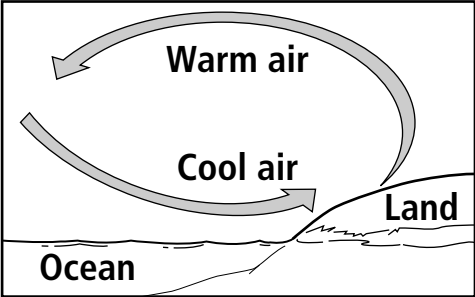
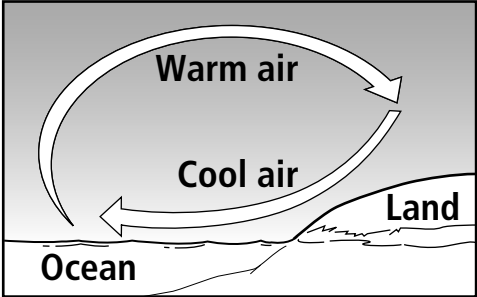


Global and Local Winds, Page 2



Local Winds

Small-scale convection currents arise from uneven heating on a smaller scale. This kind of heating occurs along a coast and in the mountains. Small-scale convection currents cause local winds. Local winds blow over a much smaller area and change direction and speed over a shorter period of time than global winds.

Sea Breeze	Land Breeze
	
<p>On a hot summer day at the beach, the land heats up faster than the water. The warmer air over land rises, while the cooler air over the ocean rushes in to take its place. This wind is called a sea, or onshore, breeze.</p>	<p>After sunset, the land cools down faster than the water. The warmer air over the ocean rises, while the cooler air over land rushes in to take its place. This wind is called a land, or offshore, breeze.</p>