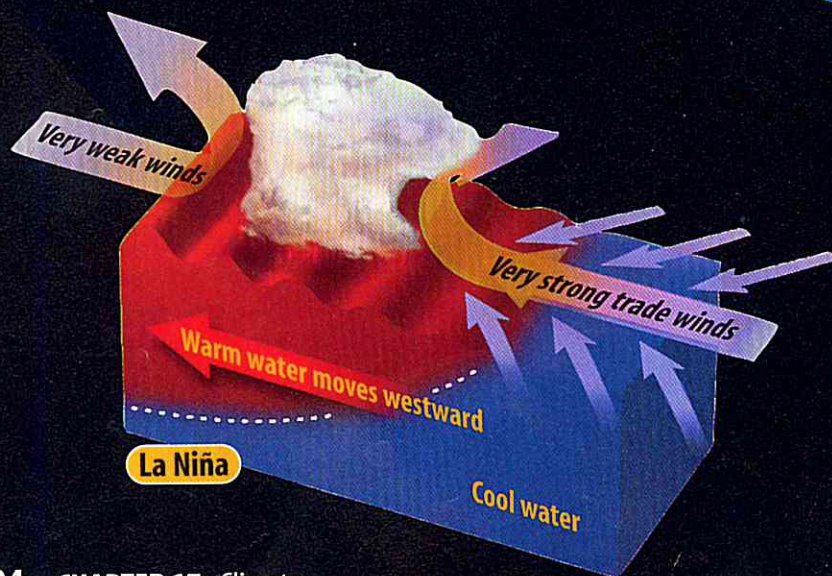
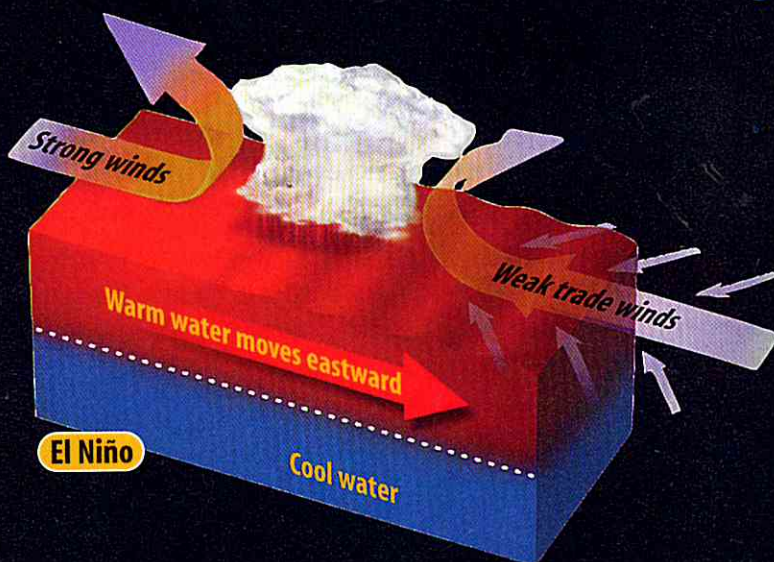
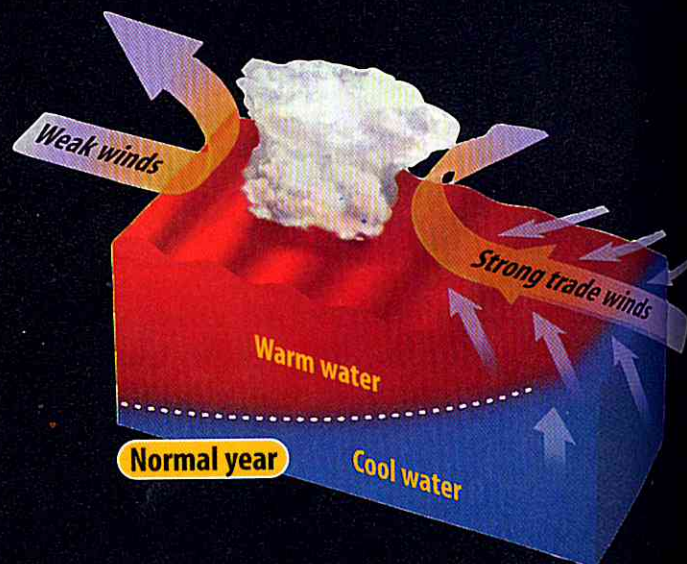


Figure 10

Weather in the United States can be affected by changes that occur thousands of kilometers away. Out in the middle of the Pacific Ocean, periodic warming and cooling of a huge mass of sea-water—phenomena known as El Niño and La Niña, respectively—can impact weather across North America. During normal years (right), when neither El Niño nor La Niña is in effect, strong winds tend to keep warm surface waters contained in the western Pacific while cooler water wells up to the surface in the eastern Pacific.

EL NIÑO During El Niño years, winds blowing west weaken and may even reverse. When this happens, warm waters in the western Pacific move eastward, preventing cold water from upwelling. These changes can alter global weather patterns and trigger heavier-than-normal precipitation across much of the United States.



LA NIÑA During La Niña years, stronger-than-normal winds push warm Pacific waters farther west, toward Asia. Cold, deep-sea waters then well up strongly in the eastern Pacific, bringing cooler and often drier weather to many parts of the United States.