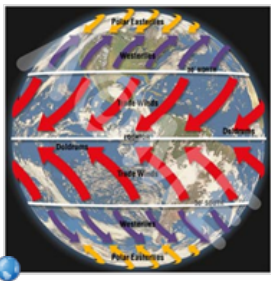


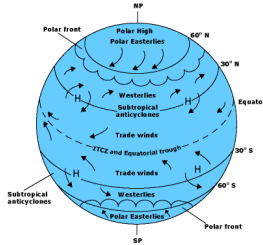
Wind Notes	
Wind	<ul style="list-style-type: none"> • caused by differences in air pressure <ul style="list-style-type: none"> - caused by the unequal heating of earth's atmosphere • air moves from an area of high pressure to an area of low pressure • measured using an anemometer (speed) and wind vane (direction) • Wind chill factor- increased cooling a wind can cause

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Global Winds	
<p>Global Winds</p> 	<ul style="list-style-type: none"> • caused by the unequal heating of the Earth's surface • occur over a larger area • they are giant convection currents created by temperature differences • warm air rises (high pressure) near equator, cool air sinks (low pressure) near poles creating winds • Coriolis effect- the way Earth's rotation makes the winds curve; without it, winds would blow in a straight line from equator to poles

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Global Winds

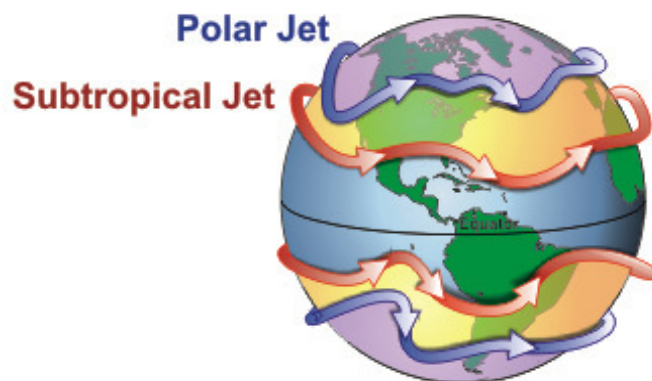


- Doldrums (equator)
 - calm area where warm air rises
- Trade Winds (equator to 30° latitude N and S)
 - Blow east to west in tropical regions and move warm air
 - Move hurricanes to the U.S.
- Horse latitudes (near 30° latitude N and S)
 - calm areas of sinking air
- Prevailing Westerlies (30° - 60° latitude N and S)
 - Blow west to east in temperate regions and moves weather systems across the US
- Polar Easterlies (60° latitude N and S to poles)
 - Blow cold air east to west, away from poles

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Jet Stream

- located between the troposphere and stratosphere
- moves weather patterns across the U.S. from west to east
- the polar jet stream brings cold air down from poles



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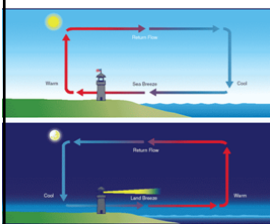
Ocean Surface Currents

- circulate warm and cold ocean waters in convection patterns and influence the weather and climates of the land masses nearby
- Two types
 - The Gulf Stream influences the eastern Atlantic shoreline of the United States by bringing warm, moist air.
 - The cold California current influences its western Pacific shoreline by bringing cold, moist air.



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Local Winds



- caused by unequal heating of Earth's surface within a small area
- Land Breeze
 - Blows from land to the water
 - Occur at night because water is warmer than land
 - warm air rises over water and cooler air from land moves beneath warm air
- Sea Breeze
 - Blows from the water to land
 - Occur during the day because the land warms faster than the water
 - warm air rises over land and cooler air from water moves beneath warm air

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