Air masses and fronts

 Moving water and air help redistribute thermal energy

Air Masses

Large volume of air that has the same characteristics, such as humidity and temp, as its source region

 Source region is the area over which an air mass forms

Types of air masses

 Maritime tropical air are tropical bodies of water

 Continental tropical air SW US and Mexico, hot and dry

 Maritime polar forms over cold water, N Atlantic and N Pacific

 Continental polar forms over interior Canada and Alaska, moves southward

 (Continental) Arctic forms over poles above 60\* latitude in Siberia and Arctic Basin

Impacts on Weather

 Coriolis effect- fluids and objects move in apparent curved path

Wind systems

 Polar Easterlies – 60\*N latitude and N Pole, 60\* S latitude ad south pole

 Prevailing westerlies – 30\*-60\*N and 30\*-60\* S

 Trade winds – 30\*N and equator; hurricanes

Fronts

 Cold front – cold air under warm air, rain

 Warm front – warm air displaces smaller cold air, light rain

 Occluded front – cold/warm/cold in same direction, last cold is faster, warm up, hail

 Stationary front - warm air confronts equal sized cold air, wind long light rain

Pressure

 Low pressure- up, clouds and precipitation, moves inward

 High pressure – clear skies, fair weather, moves outward