



Climate Controls

Factors that influence climate

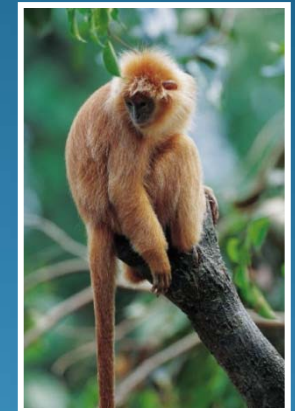
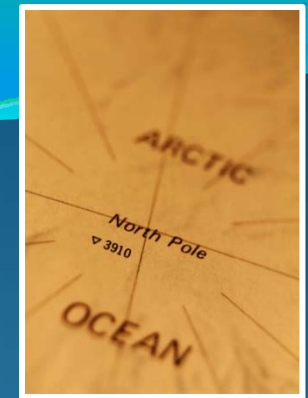


Climate Controls

- Latitude
- Ocean Currents
- Altitude
- Bodies of Water
- Air Masses
- Micro Climates
- Urban Climate

Latitude

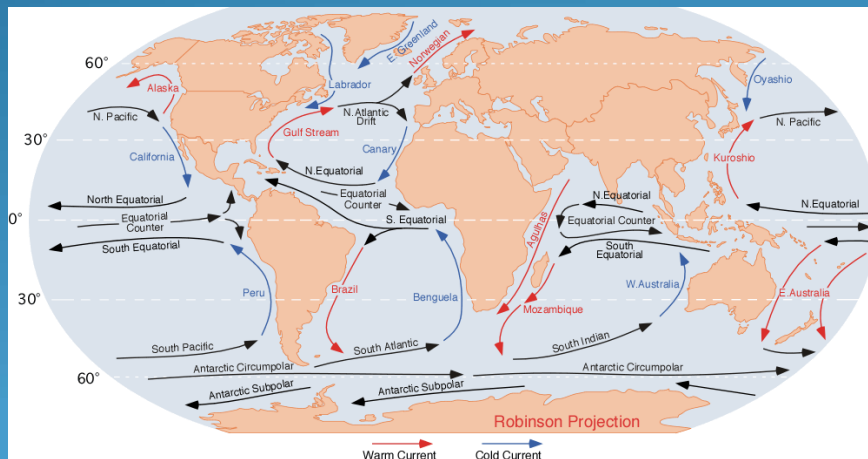
- The area of the equator is warmer because the sun's rays are more concentrated as they strike the surface at a more direct angle.
- At the poles, more of the sun's rays are absorbed as they travel through more atmosphere before reaching the surface.





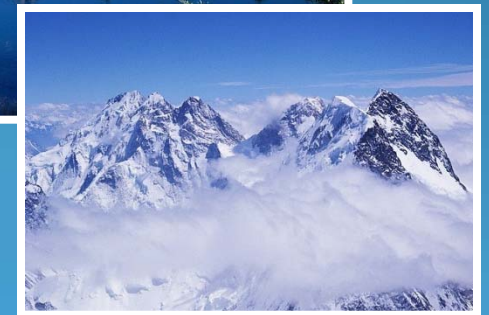
Ocean Currents

- The air above the current is influenced by the sea-surface temperature.
- Evaporation of the water increases in areas of warmer currents.



Altitude

- The air temperature decreases 6°C for each 1000m resulting in various vegetation regions on the mountain side.
- Mountains act as barriers that alter wind, sunlight, and precipitation patterns.



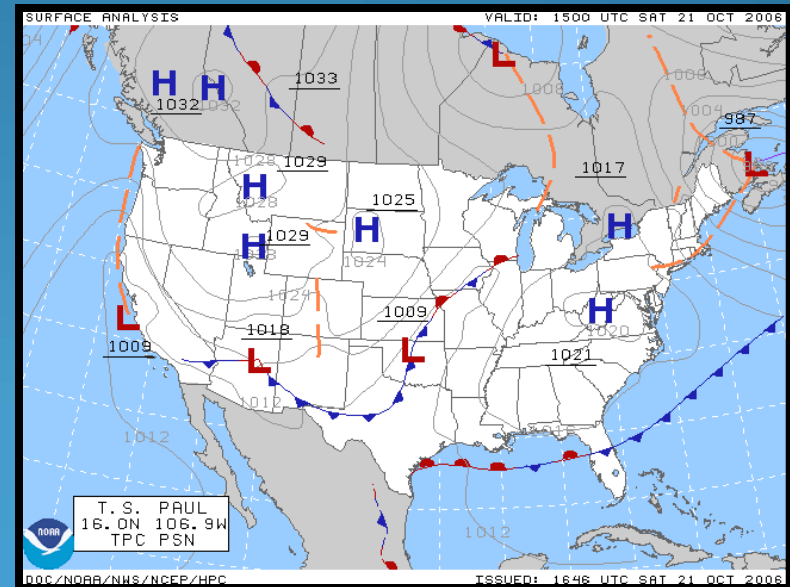
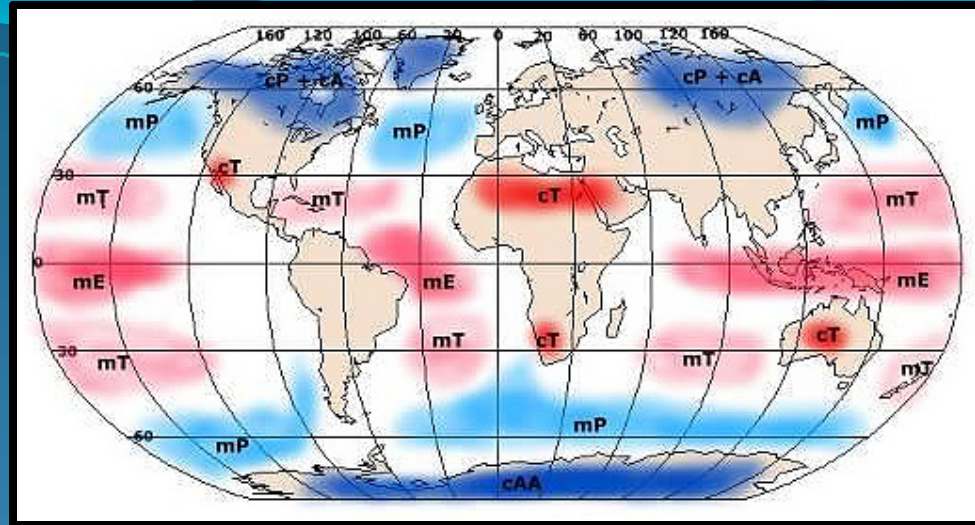


Bodies of Water

- Water and land heat and cool at different rates resulting in a moderating influence on the temperature, cool in summer and warm in winter.
- Changes in the direction of daily breezes are also caused by this temperature difference.

Air Masses

- Air masses are heated by the earth's surface.
- Global position determines the amount of heating.
- Air masses move and results in the development of weather systems.





Micro Climates



- Local conditions will alter the temperature and precipitation of an area.
- These conditions include elevation, amount of sunlight, shelter from wind, and bodies of water.

Urban Climates

- Urban areas tend to be warmer as a result of human activities such as burning fossil fuels.
- An urban “heat island” is created.
- Wind patterns are altered by the buildings.
- Surface materials reflect or absorb heat depending on their colour.

