

• <u>Climate</u> - the overall weather conditions over a long time span

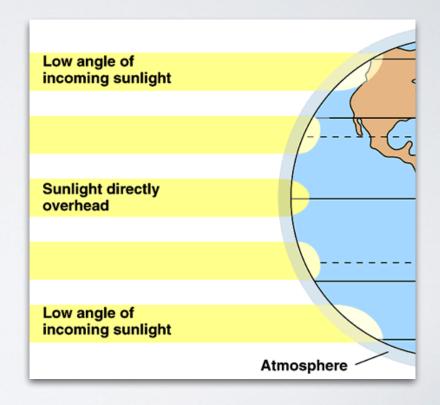


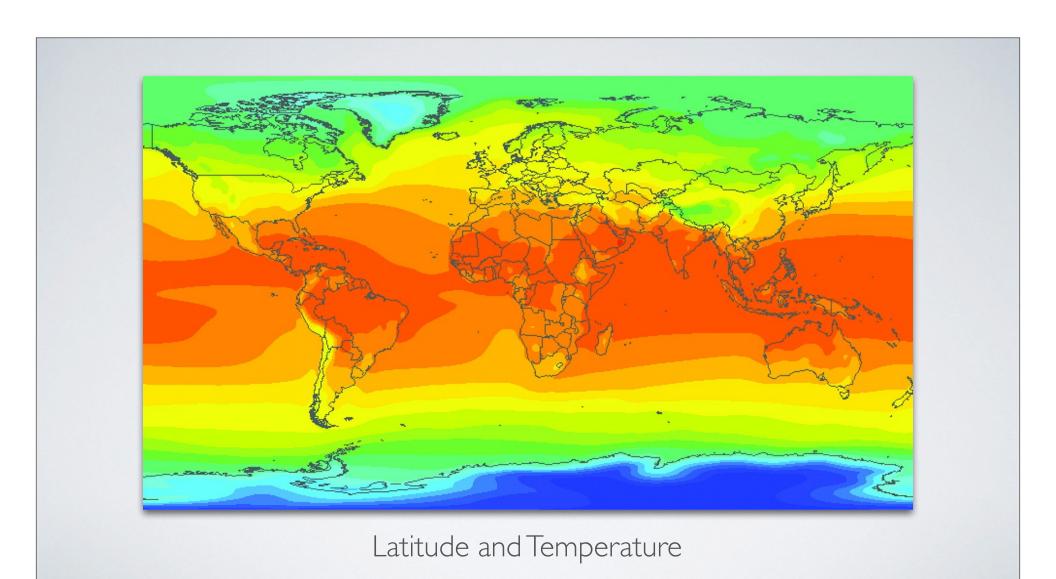






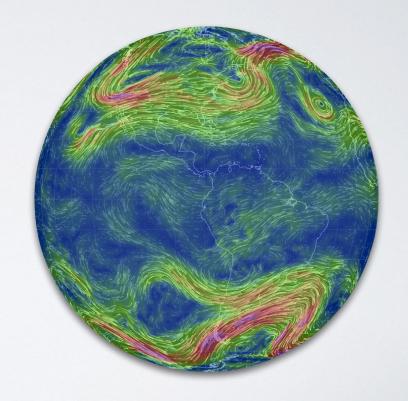
- I. Latitude and Temperature
  - Temperature is affected by latitude, the angle of insolation, intensity, and duration of sunlight



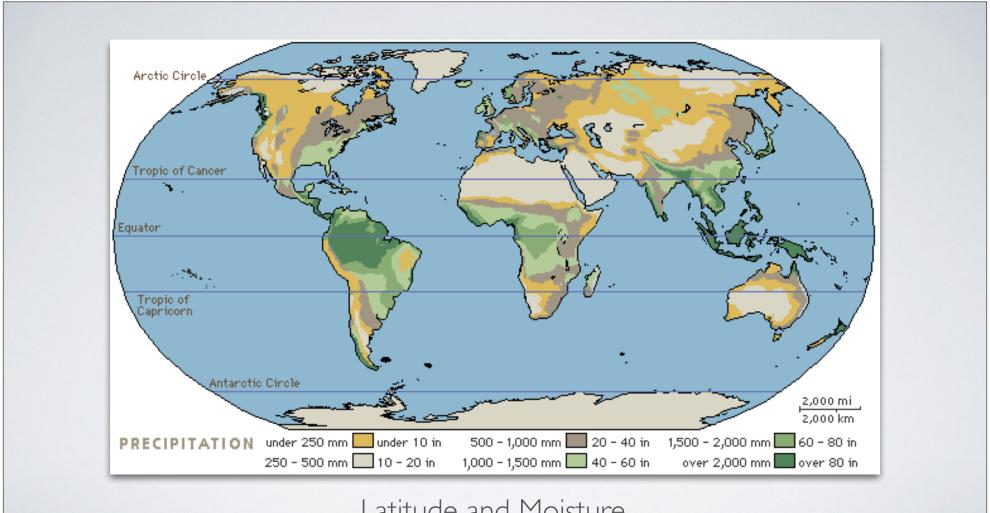


### 2. Planetary Winds

 Prevailing Winds are caused by pressure differences and redistribute heat



- 3. Latitude and Moisture
  - Moisture content varies with latitude due to planetary winds
    - Low Pressure at the equator causes air to rise, expand, cool, and condense to form clouds and rain
    - · High pressure causes air to sink and form arid regions



Latitude and Moisture

### 4. Large Bodies of Water

 Oceans, seas, lakes, and bays modify climate regions where land masses close to a body of water will be regulated by the slow rate of heating and cooling of water

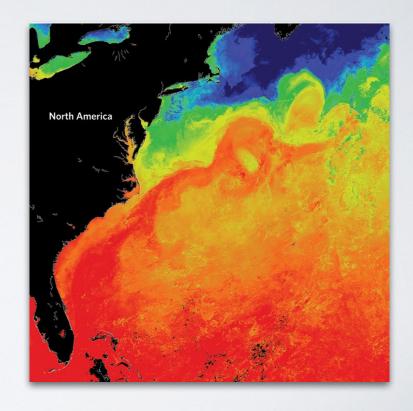


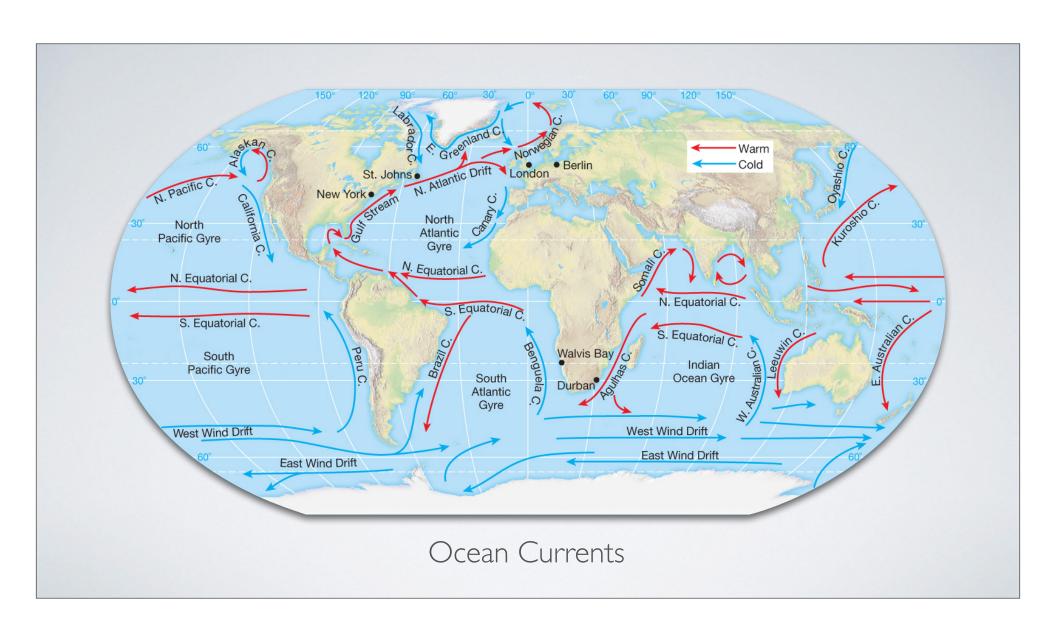


Large Bodies of Water

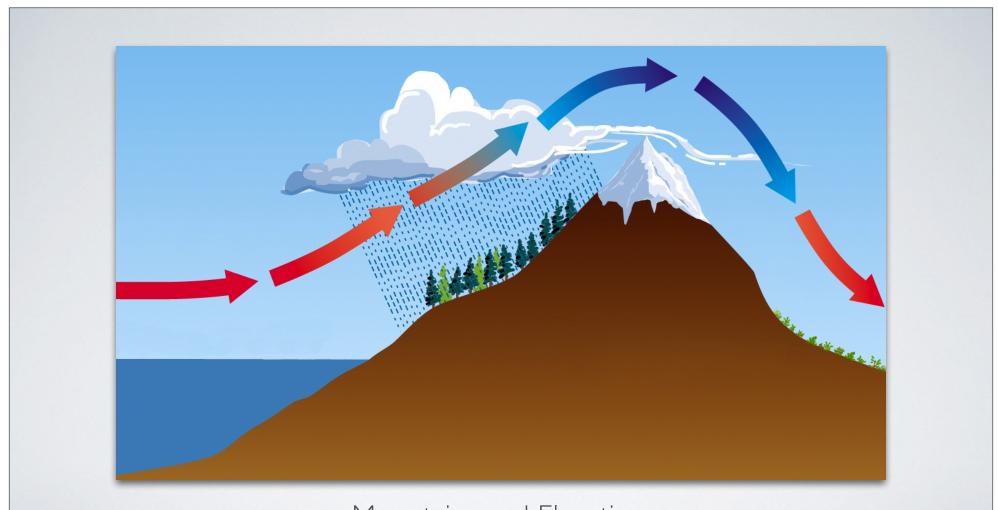
#### 5. Ocean Currents

 Coastal climates are modified by ocean currents when warm waters flow away from the equator and cold waters flow away from the poles





- 6. Mountains and Elevation
  - Higher elevations are cooler due to temperatures decreasing
  - Mountains intersect planetary winds causing the air rise, expand, cool, and condense creating a cooler and more moist region on the windward side



Mountains and Elevation



Mountains and Elevation

### 7. Cloud Cover

• During the day clouds block sunlight from warming Earth's surface and at night trap heat in the atmosphere

