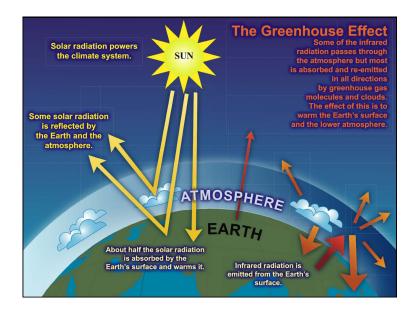
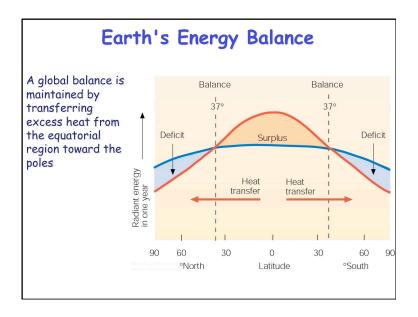
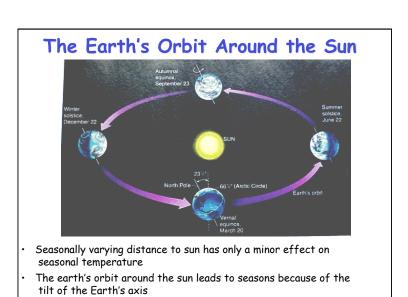
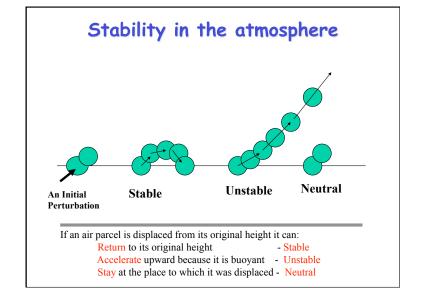
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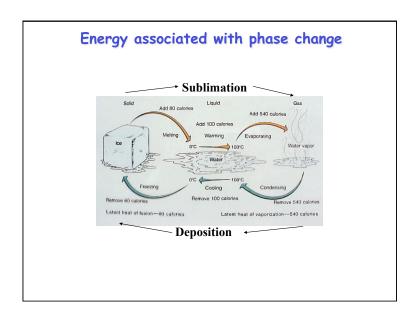






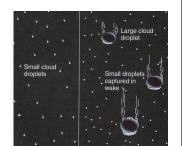
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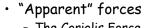
Rain formation in warm (not frozen) clouds

- · In a supersaturated environment, activated cloud drops grow by water vapor condensation
 - It takes many hours for the cloud drop to approach rain drop size
- Collisions between cloud drops can produce large rain drops much faster through coalescence
 - Collisions occur in part due to different settling rates of large and small drops
 - Not all collisions result in coalescence
- Rain formation favored by
 - Wide range of drop sizes
 - Thick cloud
 - Fast updrafts



Forces Acting on the Air

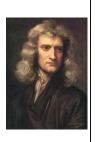
- · Pressure gradient force (pushing)
- Gravity (falling)
- Friction (rubbing against the surface)

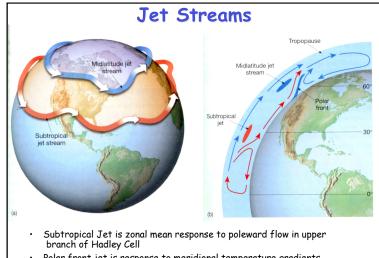


- The Coriolis Force

- Centrifugal Force

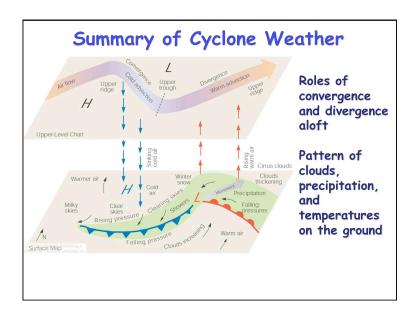


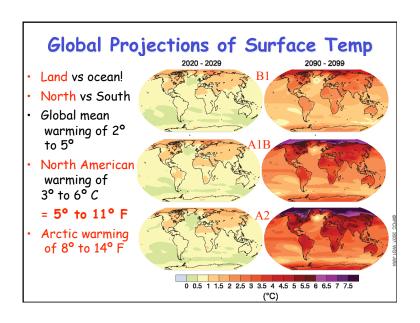


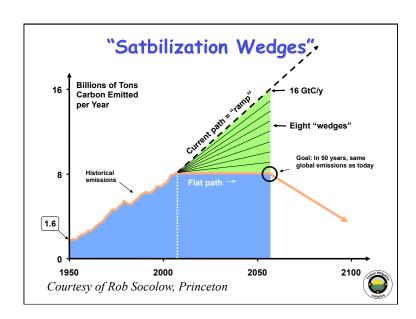


Polar front jet is response to meridional temperature gradients

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