

(Kelley and Lara)Key Concept: Standard 5

Heating of Earth's surface and atmosphere by the sun drives convection within the atmosphere and oceans, producing winds and ocean currents.

Readings

Holt text Ch 20-22 Concepts and Challenges (C&C) Ch 11, 12, 13-3, & 15-7

Homework

- Watch weather channel
- Read weather page in newspaper
- Internet: Compare the weather of 3 different cities that have the same latitude but sufficiently different longitudes and vice versa.

Presentations

- 1) Radiometer
- 2) Holt Activity p. 571 or C&C p.316 – energy absorption and reflection lab (Std 5a)
- 3) C&C Dry ice p.266 demonstrating convection current formation (Std 5b)
- 4) Holt Activity - Coriolis Effect demo using a Lazy Susan (Std 5b)
- 5) C&C Demo p. 362 - How smog relates temp inversions using a used air filter. Observing air pollutants p. 363 (Std 5c)
- 6) Holt Density Factors Lab p. 99 (Std d)
- 7) Holt Maps in Action – Absorbed Solar Radiation p.57

Assessments

- Explain how and why Santa Anas occur in San Diego
- Explain why the San Diego weather person gives separate forecasts for the coastal, inland, mountain and desert regions in our county.

Supplementary Materials

- Movie: Day After Tomorrow – the opening segment
- Weather channel.com
- Bill Nye – Conduction, convection and radiation