

# Science 1206 Review Sheet

## Unit II - Weather Dynamics

### Study Guide #2

#### Part A: Terms:

Temperature	Heat (Thermal Energy)	Radiation
Conduction	Advection	Convection
Albedo	Heat Sink	Heat Source
Heat Capacity	Latent Heat	Latent heat of vaporization
Latent heat of fusion	Rotation	Revolution
Solstice	Equinox	Atmosphere
Air	Wind	Prevailing winds
Coriolis Effect	Jet Stream	Thermals:
Sea breeze	Land breeze	Lake Snow Effect:
Chinook Winds	Weather forecasting	Meteorology
Meteorologists	Weather map	Weather symbols
Isobar	Isotherm	

#### Part B: Long Answers

1. Discuss the three ways energy is transferred: radiation, conduction, convection. (p 504)
2. Illustrate the distribution of incoming solar energy (p 506)
3. Describe how heat energy is transferred from the sun and how it is distributed once it reaches the earth. (p 506, p 518, p 526)
4. Explain why dry land heats up faster than water when exposed to the same amount of solar energy. (p 506)
5. Identify that the amount of heat energy absorbed by any material depends on the albedo of the material
6. Explain why seasonal variations occur in weather. (figure 1 p 508)
7. Describe prevailing winds. What is their cause. (figure 1-e p 537)
8. Describe the cause of ocean currents. (p 526)
9. Describe the role of the world's oceans in determining weather. (p 525-527)
10. Show that you can read a weather map by drawing symbols used for: (p 550-1)
  - a. high pressure
  - b. low pressure
  - c. warm front
  - d. cold front
  - e. jet stream
  - f. rain
  - g. snow

11. Identify examples where improved data gathering technology has resulted in better understanding weather systems and of forecasting. (p.542-543)
  
12. Understand examples of extreme weather
  - Thunderstorms and Tornadoes (p584-588)
  - Floods and Droughts (p 589-591)
  - Hurricanes, Typhoons, Tropical Cyclones (p. 594-597)
  - Blizzards and Ice Storms (p. 598-603)