Chapter 14 Review

- 1. Define
  - hydrosphere
  - water cycle
  - ultraviolet radiation
  - chlorofluorocarbons (CFC's)
  - Jet Stream
  - Coriolis effect
  - Ionosphere
  - Mountain- Valley wind
  - Monsoon winds

- 2. What are the three most abundant gasses in the atmosphere and what is the percentage of each? Explain why we need each of them to survive.

- 3. List all of the trace gasses.

- 4. What is smog? Explain the difference between gray and brown smog.

- 5. What is the Ozone? Is it helpful or harmful? Explain.

- 6. List the layers of the atmosphere in order starting with the one closest to earth?

- 7. Which layers does the temp increase? Decrease?

- 9. Where is the ozone located? Ionosphere?

- 10. Which layer do meteoroids burn up? Where do satellites travel? Where are the aurora Borealis?

- 11. Explain the difference between aneroid and mercury barometer?

- 12. How is air pressure affected by temperature, altitude, moisture?

- 13. What is said to be destroying our ozone and how are they destroying it. Explain the process.

- 14. Explain Radiation, Conduction, and Convection. Give an example of each?

- 15. What happens to radiation from the sun as it reaches our atmosphere?

- 16. Explain the evaporation, condensation, and precipitation in detail relating to the water cycle.

- 17. Compare and contrast between land and sea breeze?

- 18. Wind is air that moves from _____ pressure to _____ pressure.

- 19. Where do the trade winds exist? Why were they named trade winds?

- 20. Where are the prevailing Westerlies and what are they responsible for?

- 21. What are the polar easterlies?

- 22. In which direction does the trade winds, prevailing Westerlies, and polar easterlies travel with respect to the northern and southern hemisphere. Make a chart to help you.

- 23. How does temperature, density, and pressure all relate?

- 24. Explain how Air Pressure helps us forecast weather?

Chapter 15 review

a) Define

a. Weather
b. Humidity
c. Relative humidity
d. Saturated
e. Dew point
f. Fog
g. Precipitation
h. Air mass
i. Front
j. meteorologist
k. station model
l. isotherm
m. isobar
n. cloud seeding
o. Fog
p. wind shear

b) What are the important factors in determining weather?

c) Describe how each of the following clouds appear in the sky, what weather is associated with each and whether they are low, medium, or high in the atmosphere.

a. Stratus
b. Cumulus
c. Cirrus
d. Nimbus
e. Cirrostratus
f. Cumulonimbus
g. Altostratus
h. nimbostratus

4. What types of precipitation can occur?
5. List the main air masses that affect the United States and describe the type of weather that each brings? Also know each is coming from?
6. The four types of fronts are Warm, Cold, Stationary, and Occluded. Draw the symbol of each and describe what is happening at each front along with what type of weather is most likely?
7. How can we use high and low pressure systems to predict the weather?
8. What is the difference between a watch and a warning?
9. What is the criterion in order for a thunderstorm to be severe?
10. What causes lightening and thunder?
11. How fast can tornadoes speeds reach? When do they usually occur? Where is tornado alley? What air masses make this region susceptible to tornadoes? What states are in the alley? What is the vortex?
12. What is the fujita scale? What does it measure specifically? Look at the sheet and be able to recognize typical damage for each level.
13. How do hurricanes form? What are they called in the western pacific? What is the difference between a tropical storm and a hurricane? How fast can the winds reach? What is the eye and what is the weather like there? What is the wall? Define storm surge?
14. What is the saffir-simpson scale? What is it based on? What is the determining factor? Be familiar with the worksheet and know winds and effects of each level.
15. Give a brief description of each instrument.
    a) Thermometers
    b) barometer
    c) Psychrometer
    d) anemometer
    e) rain gauge
    f) weather balloons
    g) satellites