Earth Science Spring Final Study Guide

1. Label the layers of the atmosphere. 

2. Why does the atmosphere have layers?

3. Label the normal & inverse lapse rates.

 4. Label the pauses.

5. Where is air pressure greatest? Why?

6. Which greenhouse gas is most responsible

 for weather changes?

7. List 2 greenhouse gases.

 a.

 b.

8. List the 2 most predominant gases in our atmosphere

 & their percentages?

 a. \_\_\_\_\_%

 b. \_\_\_\_\_%

9. List 3-5 facts about each layer.

1st Layer Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2nd Layer Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3rd Layer Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4th Layer Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. List 5 functions of our atmosphere.

 a.

 b.

 c.

 d.

 e.

11. Sketch & describe the three ways that heat is transferred through the atmosphere.

12. Draw a picture and describe what happens to air as it heats up (does it rise/sink, become more dense/less dense, high pressure/low pressure) Do the same for air as it cools.

 AIR HEATING UP AIR COOLING DOWN

13. Which types of surfaces heat up/cool down the fastest…

land or water?

 Why?

light or dark?

**Use the continent below to answer the following questions.**



14. Label the latitudes.

15. Which letter will receive the most direct light?

16. Which letter will receive the most indirect light?

17. Label the high and low pressure areas.

18. Which city would be a desert?

19. Which city would be in a rainshadow?

20. What type of temperature and precipitation will

city E have? why?

21. Which city will experience orthographic lifting? (What is orthographic lifting??)

22. Which city will be the warmest?

 the coldest?

why?

 23. Contrast cities A & B in regards to temperature and precipitation.

24. Will city F or D be warmer? Why?

25. Label the major spheres.

26. Label where Carbon is stored.

27. What are the processes that Carbon gets cycled through the environment?

 (Be sure to address how living and

 nonliving components move Carbon)



 28. How is Nitrogen cycled through the environment?

29. Where is Nitrogen stored?



30. Label the windless areas.

31. Why do the winds curve? What is that called?

32. The equator receives the most direct light and therefore gets the hottest. How is that heat transferred around the globe?

 33. Label the high & low pressure areas.

 34. Draw in and label the winds.

 35. Why does the wind blow?

36. Label the latitudes where you find high precipitation & the latitudes where you find lower amounts of precipitation.

37. Color code the general patterns for the 5 different biomes (Remember to make a key!)

38. What are the symbols of a cold front? A warm front?

39. What weather pattern occurs when a cold front pushes into a warm front?

40. What weather pattern occurs when a warm front overtakes a cold front?