Chapter 4 Study guide Test: 12/13 (A day) **12/14** (B day)

1. _____ is energy transferred in rays or waves.
2. _____ is energy transferred by the flow of heated material.
3. Describe how sea and land breezes are formed.
4. As you move away from Earth's surface, what happens with the atmosphere?
5. What is the source of all energy in our atmosphere?
6. There is little wind in the doldrums because _____
7. The _____ is caused by Earth's rotation.
8. When molecules bump into one another and transfer energy, what type of energy is that called?
9. What is the closest layer of atmosphere to the Earth's surface?
10. _____ are responsible for most of the weather across the US and Canada.
11. The air above the *north pole/south pole/equator/arctic circle* has low density and low pressure so it rises.
12. True or False: When Earth receives energy from the sun,
    a. Some energy is reflected back into space
    b. Some energy is absorbed by the atmosphere
    c. Some energy is absorbed by land and water on Earth
13. When cool dense air flows inland (from sea to land), what type of breeze is that?
14. Where is the Ozone Layer found?
15. What do you think would happen if the ozone layer disappeared? Life on Earth would be exposed to *more/less/the same amount* of ultraviolet radiation?
16. True or False: Particulate matter is a mixture of dust, acids, and other chemicals.
17. _____ are windless zones.
18. What angle does the sunlight's ray strike Earth at the equator?
19. Not all pollution is outside. Sometimes pollution indoors can be as much as ___ times the pollution outside.
20. If a pot of water were heated from the top it would _____.
    a. Boil faster as the heat would radiate down to the surrounding water faster.
    b. Boil slower as the heated water would stay on top and not warm the water below.
    c. Boil at the same rate as a pot of water boiled from the bottom because the water is constantly moving past the heat source.
    d. Boil at the same rate as a pot of water boiled from the bottom because the location of the heat does not change the boiling point of water.
21. Matching:

1. Conduction	A. transfer of heat by the flow of heated material
2. Convection	B. transfer of energy by rays or waves
3. Ozone	C. a type of pollution
4. Radiation	D. the transfer of energy that occurs when molecules bump into one another
5. Smog	E. a gas made up of three oxygen molecules bonded together that occur naturally in the upper atmosphere.