

Study Notes for Chapter 22: The Atmosphere*Directions: Use the following notes to prepare for the test.***Chapter 22 Section 1: Characteristics of the Atmosphere**

1. The _____ is a mixture of _____, primarily nitrogen, oxygen, and argon, that surrounds Earth.
2. The two most abundant _____ in the atmosphere are _____ and water vapor.
3. One effect of air pollution is _____ of the _____ layer.
4. Dust, _____, and pollen are all _____ in the atmosphere.
5. Atmospheric pressure is measured with a _____.
6. The _____ is the lowest layer of the atmosphere, where all _____ conditions exist.
7. The _____ is the layer of the atmosphere which contains the _____ layer.
8. The _____ is the coldest layer of the atmosphere in which temperature decreases as altitude increases.
9. The _____ is the uppermost layer of the atmosphere; includes the _____.
10. Interactions between solar radiation and the _____ cause _____.
11. Temperature _____ can intensify the effect of smog when cool, polluted ground air is trapped by warm air.
12. One harmful effect of temperature _____ is _____.

Chapter 22 Section 2: Solar Energy and the Atmosphere

13. Energy from the sun travels to Earth as _____.
14. The electromagnetic _____ is all of the frequencies or wavelengths of _____ radiation.
15. The solar radiation least absorbed by the layers of the atmosphere before reaching Earth is _____.
16. _____ is the fraction of solar radiation reaching Earth that is reflected.
17. _____ radiation that is not reflected back into the atmosphere is _____ by surface materials.
18. After Earth absorbs _____ rays that heat the ground, thermal energy is _____ by the atmosphere from the _____.
19. The warming of the surface and lower atmosphere of Earth that occurs when carbon dioxide, water vapor, and other gases in the air trap heat near Earth's surface is known as the _____ effect.
20. A _____ between Earth's absorption of solar energy and an increase in temperature makes the _____ part of a day in the _____.
21. _____ is the transfer of energy as heat through a material. By direct contact.
22. _____ is _____ of matter due to differences in density caused by temperature variations.

Chapter 22 Section 3: Atmospheric Circulation

23. The _____ is the curving of the path of a moving object from an otherwise straight path due to Earth's _____.
24. Because of the _____, an object that travels north from the equator will curve to the right.
25. _____ cells are the three _____ patterns of air flow that exist in each hemisphere.
26. _____ winds that blow through the middle of the United States are called _____.
27. The _____ winds of the Northern and Southern Hemispheres meet at the equator in a narrow zone of weak variable winds called the _____.
28. The narrow bands of high-speed winds that blow in the upper atmosphere are called _____.
29. _____ winds are influenced by local _____ and local temperature.
30. _____ breezes blow cool air _____ to water.