

Directions: for each of the questions on the following pages, choose the one best answer and write it in the space provided.

Chapter 8 - Atmosphere and Severe Weather

1. Energy needed to cause a change in state is called _____.
2. The Earth receives only part of the Sun's radiation. Most of the rest is reflected by the _____, by _____ and is also absorbed and reflected by _____.
3. Woodlands have a _____ albedo.
4. Atmospheric pressure in the Troposphere _____ with increasing altitude.
5. As air rises in the atmosphere, it cools, _____, and forms _____.
6. High pressure systems are associated with weather that is _____ and _____.
7. Pressure differences drive the movement of _____.
8. The _____ thunderstorm stage is dominated by updrafts.
9. You would you be most likely to see lightning in the _____ thunderstorm stage.
10. When two winds are moving in opposite directions at different speeds, this is called _____.
11. The type of severe thunderstorm called a squall line is caused by _____ fronts.
12. The type of severe thunderstorm that spawns the most tornadoes is a _____.
13. In the _____ stage of development are where the winds in a tornado are moving the fastest.
14. Tornadoes that form over water sources are called _____.
15. A blizzard is defined in terms of _____ and _____.
16. When snow falls through warm air and into a small slice of below-freezing air on the ground, it is called _____.
17. The natural hazard that affects more people than any other is _____.
18. Global warming is expected to cause increases in the _____, the risk of _____, and the intensity of both _____ and _____.

Chapter 9 - Hurricanes and Extratropical Cyclones

19. Tropical cyclones form over _____ and have _____ central cores, extratropical cyclones form over _____ or _____ and have _____ cores.
20. A Nor'easter is a type of _____.
21. A tropical cyclone in the Western Pacific is called a _____.
22. The names of _____ are picked sequentially from a list of names for that year
23. The majority of precipitation in a hurricane occurs in the _____.
24. The eye is the calmest part of the storm, because rotating air causes dry air to _____.
25. The conditions needed for a hurricane to develop include a thick layer of warm air at the _____, the warm air must _____ quickly in the atmosphere, upper level winds must be _____, and a _____ must form.
26. One thing that makes extratropical cyclones different than tropical cyclones, is that extratropical cyclones are associated with _____.
27. Hurricane season for the Eastern and Gulf coasts of the U.S. runs from the months of _____ through _____.
28. The amount of storm surge on a coastline is affected by _____, atmospheric _____, and the shape of the _____.
29. Tools used to forecast hurricanes include weather _____, aircraft, _____ radar, and weather _____.

Chapter 10 - Waves, Currents and Coastlines

30. The size of waves depends on the length of time the wind blows, the wind _____, and the distance the wind blows over the surface without obstructions, called the _____.
31. If you were watching waves from the shore and started counting the seconds between one crest to the next, you would be measuring the wave _____.

32. If you placed a small boat in waves in the open ocean (NOT near the shoreline), the motion of the boat would be a _____ pattern, staying mostly in the same place.
33. Waves begin to slow down and “feel bottom” at a depth equal to _____ wavelength.
34. Waves generated by storms are called _____.
35. Sand moving parallel to the shore is called _____.
36. The difference between eustatic and relative sea level is that “eustatic” refers to the _____ sea level, whereas “relative” refers to _____ sea level near _____.
37. An area of calm, surrounded by breaking waves, is one way to spot a _____ from the shore.
38. Along a lake shore with steep bluffs, you would expect to see lots of _____.
39. Beach nourishment is a form of _____ stabilization.
40. _____ are a type of hard stabilization, built parallel to shore to protect cliffs or bluffs.
41. Breakwaters are NOT a perfect solution for saving beaches from eroding, because they increase erosion in the _____ area.
42. A solution which involves rethinking land uses and developing less of the coastal zone is called the _____ solution.”

CHAPTER 11 - Climate & Climate Change

43. The Koeppen system uses average monthly _____ and _____ to describe climate in a region.
44. Ozone is found in the _____, and mostly _____ incoming _____ light.
45. CFCs (chlorofluorocarbons) are a problem in the atmosphere because they break down _____ in the stratosphere.
46. Evidence of global warming includes rising ocean _____, melting _____, melting _____, and rising _____ levels.
47. Glaciation is thought to be influenced by the changing positions of the _____, and changes in Earth’s _____, _____ and _____.

48. The absorption of ultraviolet radiation from the Sun is called the _____
_____.
49. Scientists measure the amount of carbon dioxide in the atmosphere for dates prior to 1955 by examining _____ from the Antarctic ice sheet.
50. Over the last 500 years, carbon dioxide concentrations in the atmosphere have been mostly stable, but around 1900, CO₂ started to _____ dramatically.
51. "There is widespread evidence of human influence on global climate," "global warming is now occurring," and "the mean surface temperature of the Earth is likely to increase." These are conclusions of the _____ on _____.
52. As the Earth warms, the areas that we lose to agriculture (such as the U.S. Midwest) might be replaced by new areas that are now too cold for farming (such as Northern Canada). But we're not sure. There's more to farming than just _____. We need further study on the _____ characteristics of these areas.
53. Scientists know that the current global warming situation is NOT caused by natural forces, in part because mathematical _____ show _____ sources to be the cause.
54. Melting ice sheets raise _____, add _____ to the ocean, which changes global ocean currents, reduces the supply of _____, and changes the habitat for polar bears, _____ and some _____.

Chapter 12 - Wildfires

55. In order for a wildfire to burn, _____ and _____ are required.
56. Indicators of whether a region is prone to wildfires include _____, _____ type, and _____.