

Chapter 22: Concept Review

In the space provided, write the letter of the description that best matches the term or phrase.

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| _____ 1. layers of the atmosphere | a. all forms of energy that travel through space as waves |
| _____ 2. radiation | b. prevailing winds that blow from west to east between 30° and 60° latitude in both hemispheres |
| _____ 3. conduction | c. the curving of the path of a moving object from an otherwise straight path due to Earth's rotation |
| _____ 4. convection | d. troposphere; stratosphere; mesosphere; thermosphere |
| _____ 5. Coriolis effect | e. polar easterlies meet warm air from the Westerlies, creating a stormy area |
| _____ 6. global winds | f. the transfer of energy as heat through a material |
| _____ 7. trade winds | g. prevailing winds that blow from east to west between 60° and 90° latitude in both hemispheres |
| _____ 8. Westerlies | h. prevailing winds that blow from 30° to 0° latitude in both hemispheres |
| _____ 9. polar easterlies | i. looping patterns of air flow, called convection cells, that move from the poles to the equator |
| _____ 10. front | j. the movement of matter due to differences in density that are caused by temperature variations; can result in the transfer of energy as heat |

In the space provided, write the letter of the answer choice that best completes each statement or best answers each question.

- _____ 11. The atmosphere is a mixture of gases that surround Earth. Which of the following is NOT a gaseous component of the atmosphere?
a. carbon dioxide **b.** argon **c.** particulates **d.** nitrogen
- _____ 12. Atmospheric pressure presses on the liquid mercury in a well of this instrument. The mercury rises in a tube as the atmospheric pressure rises. What is this instrument?
a. mercurial barometer **b.** altimeter **c.** aneroid barometer **d.** thermometer
- _____ 13. Changes in atmospheric pressure cause the sides of this instrument to bend inward or outward. Changes are measured on a scale. What is this instrument?
a. mercurial barometer **b.** altimeter **c.** aneroid barometer **d.** thermometer
- _____ 14. All radiant energy reaches earth as a form of
a. light waves. **b.** sound waves **c.** electromagnetic waves. **d.** ultraviolet waves.
- _____ 15. Solar energy warms Earth when radiation is
a. reflected. **b.** refracted. **c.** scattered. **d.** absorbed.
- _____ 16. Which of the following affects local wind patterns?
a. trade winds **b.** local temperature variations **c.** solar storms **d.** season changes
- _____ 17. The gas that makes up most of Earth's atmosphere is
a. oxygen. **b.** argon. **c.** nitrogen. **d.** ozone.
- _____ 18. All of the following are particulates EXCEPT
a. carbon dioxide. **b.** salt particles. **c.** volcanic ash. **d.** pollen.
- _____ 19. The atmospheric layer that is closest to Earth and is where all weather conditions exist is the
a. troposphere. **b.** mesosphere **c.** stratosphere. **d.** thermosphere.
- _____ 20. The main source of air pollution is
a. the nitrogen cycle. **b.** temperature inversions. **c.** smog. **d.** the burning of fossil fuels.