

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