

Concept Review

Ch. 13

MATCHING

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

- | | |
|-------------------------------------------------------------------|--------------------------------|
| _____ 1. international agreement to limit CFC production | a. El Niño |
| _____ 2. destroyed by CFCs | b. atmospheric CO ₂ |
| _____ 3. caused by wind and influenced by Earth's rotation | c. stratospheric ozone |
| _____ 4. increases when fossil fuels are burned | d. winter |
| _____ 5. low-angle sunlight | e. Montreal Protocol |
| _____ 6. winds push warm water eastward in the Pacific Ocean | f. greenhouse effect |
| _____ 7. heat trapped by atmosphere near Earth's surface | g. DNA damage |
| _____ 8. potential result of high UV radiation at Earth's surface | h. surface ocean currents |
| _____ 9. water is cooler than usual in the eastern Pacific Ocean | i. prevailing winds |
| _____ 10. trade winds, westerlies, and polar easterlies | j. La Niña |

MULTIPLE CHOICE

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

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|------------------------------------------------------|--------------------------------------------|
| _____ 11. Climate in a region is | _____ 12. Rain frequently results whenever |
| a. the long-term, prevailing atmospheric conditions. | a. cold, moist air rises. |
| b. determined only by seasonal daylight hours. | b. warm, moist air rises. |
| c. the atmospheric conditions on a given day. | c. warm, dry air sinks. |
| d. never affected by ocean currents. | d. cold, dry air sinks. |

Concept Review *continued*

- _____ 13. Latitude strongly influences climate because _____ solar energy falls on areas that are closer to the equator than to the poles.
- less
 - the same amount of
 - more
 - sometimes less
- _____ 14. An important property of air circulation is
- warm air is denser than cold air.
 - cold air and warm air have the same density.
 - cold air is denser than warm air.
 - air has no mass.
- _____ 15. Which of the following gases is *most* responsible for the greenhouse effect?
- nitrous oxide
 - methane
 - oxygen
 - water vapor
- _____ 16. Which of the following reduce(s) CO₂ in the atmosphere?
- phytoplankton
 - tropical rain forests
 - oceans
 - all of the above
- _____ 17. During the summer, sunlight in the Northern Hemisphere shines
- obliquely for long days.
 - slanting for short days.
 - more directly for long days.
 - less directly for short days.
- _____ 18. Ozone in the stratosphere
- causes skin cancer.
 - prevents DNA repair.
 - absorbs UV light.
 - destroys CFCs.
- _____ 19. Ozone holes appear in polar regions during springtime when ozone-destroying
- chlorine atoms are released from polar stratospheric clouds.
 - chlorine atoms are captured by polar stratospheric clouds.
 - CFCs are synthesized on polar stratospheric clouds.
 - CFCs magnify ultraviolet light.
- _____ 20. Once in the atmosphere, CFCs
- quickly become harmless.
 - destroy ozone for only a short time.
 - persist but stop destroying ozone.
 - persist and continue to destroy ozone for decades.
- _____ 21. La Niña is the _____ phase of the El Niño-Southern Oscillation (ENSO) cycle.
- warm
 - cold
 - neutral
 - mixing
- _____ 22. The average global temperature has _____ during the 20th century.
- remained the same
 - increased every year
 - risen some years and fallen other years but has increased overall
 - risen some years and fallen other years but has decreased overall