

## Human Impact on Earth

### Matching

Match each item with its correct description below.

- |                       |                       |
|-----------------------|-----------------------|
| a. acid rain          | c. particulate matter |
| b. ground-level ozone | d. smog               |

- \_\_\_\_\_ 1. Molecule made of three oxygen atoms that forms when air pollutants such as hydrocarbons are exposed to sunlight
- \_\_\_\_\_ 2. Yellow-brown haze caused by chemical reaction of sunlight on hydrocarbons and nitrogen oxides from auto exhaust systems
- \_\_\_\_\_ 3. Precipitation with a pH less than 5.0 to 5.6 that forms when sulfur dioxide and nitrogen oxides from burning fossil fuels combine with moisture in the air
- \_\_\_\_\_ 4. Small, solid particles of materials such as ash, dust, pollen, and asbestos

### Modified True/False

Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.

- \_\_\_\_\_ 5. Because it wastes so much water, minimizing the need for irrigation is one way to conserve water.  
\_\_\_\_\_
- \_\_\_\_\_ 6. As long as the number of reproducing adults in a population continues to increase, the population as a whole is in a state of density. \_\_\_\_\_
- \_\_\_\_\_ 7. Many scientists believe that human production of the greenhouse gas carbon dioxide is largely responsible for the phenomenon of ozone depletion. \_\_\_\_\_
- \_\_\_\_\_ 8. Environmental factors that limit population growth, such as floods and pollution, are density-independent factors. \_\_\_\_\_
- \_\_\_\_\_ 9. Ground-level ozone absorbs and filters out harmful ultraviolet radiation. \_\_\_\_\_
- \_\_\_\_\_ 10. Point sources generate pollution from widely spread areas. \_\_\_\_\_
- \_\_\_\_\_ 11. Naturally occurring bacteria can be used to eat toxic materials and convert them to less-harmful substances in a process called reclamation. \_\_\_\_\_
- \_\_\_\_\_ 12. The Clean Water Act is the main law that ensures that all Americans have access to safe drinking water.  
\_\_\_\_\_

### Multiple Choice

Identify the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 13. The primary federal law that protects our nation's water from pollution is the \_\_\_\_\_.  
a. Safe Drinking Water Act                      c. Clean Water Act  
b. Clear Water Amendment                      d. Endangered Species Act
- \_\_\_\_\_ 14. A federal law requires mining companies to carry out \_\_\_\_\_, which is the process of restoring the land and vegetation to its original state after mining.  
a. classification                                      c. reclamation  
b. excavation    d. restoration
- \_\_\_\_\_ 15. In order to reduce erosion at construction sites, developers must often place \_\_\_\_\_ around the sites.

- a. trees  
b. barriers
- c. wetlands  
d. monitors
- \_\_\_ 16. Global warming is partly the result of an increased concentration of greenhouse gases, especially \_\_\_\_.
- a. hydrogen  
b. carbon dioxide
- c. ozone  
d. oxygen
- \_\_\_ 17. Sulfur dioxide emissions from coal-burning power plants combines with atmospheric moisture to form \_\_\_\_.
- a. ozone  
b. acid precipitation
- c. nitrogen dioxide  
d. CFCs
- \_\_\_ 18. Impermeable clay or plastic layers and ventilation pipes are components used in modern-day \_\_\_\_.
- a. greenways  
b. landfills
- c. wetlands  
d. incinerators
- \_\_\_ 19. As a result of urban development, land becomes covered with cement and asphalt, which can result in \_\_\_\_.
- a. pollution of the air  
b. increased flooding
- c. increased biodiversity  
d. increased groundwater recharge
- \_\_\_ 20. The number of organisms that any given environment can support is the \_\_\_\_ of that environment.
- a. density factor  
b. exponential limit
- c. carrying capacity  
d. limiting factor
- \_\_\_ 21. Mineral extraction from underground mines creates waste rock, and rainwater seeping through piles of this rock can lead to \_\_\_\_.
- a. pollution of the air  
b. pollution of streams
- c. the formation of acid precipitation  
d. stripping of the surface landscape
- \_\_\_ 22. Oxygen, carbon dioxide, and water are \_\_\_\_ that living things need.
- a. ions  
b. natural resources
- c. foods  
d. organisms
- \_\_\_ 23. A population that is at the carrying capacity for its environment is in \_\_\_\_.
- a. decline  
b. equilibrium
- c. collapse  
d. growth
- \_\_\_ 24. Increased development can create more \_\_\_\_ as a result of the replacement of large land areas with concrete and asphalt.
- a. pollution  
b. flooding
- c. forests  
d. condensation
- \_\_\_ 25. The \_\_\_\_ is the primary federal law that protects our nation's waters.
- a. Safe Drinking Water Act  
b. Clean Water Act
- c. Clean Air Act  
d. Toxic Substances Act

## Human Impact on Earth Answer Section

### MATCHING

- |           |        |               |                 |
|-----------|--------|---------------|-----------------|
| 1. ANS: B | PTS: 1 | DIF: Webb's I | STA: SC.G.2.4.6 |
| 2. ANS: D | PTS: 1 | DIF: Webb's I | STA: SC.G.2.4.6 |
| 3. ANS: A | PTS: 1 | DIF: Webb's I | STA: SC.G.2.4.6 |
| 4. ANS: C | PTS: 1 | DIF: Webb's I | STA: SC.G.2.4.6 |

### MODIFIED TRUE/FALSE

- |   |               |                              |  |
|---|---------------|------------------------------|--|
| 5. ANS: T<br>STA: SC.G.2.4.6                      | PTS: 1        | DIF: Webb's I                |  |
| 6. ANS: F, exponential growth<br><br>PTS: 1       | DIF: Webb's I | STA: SC.G.2.4.6              |  |
| 7. ANS: F, global warming<br><br>PTS: 1           | DIF: Webb's I | STA: SC.G.2.4.6              |  |
| 8. ANS: T<br>STA: SC.D.2.4.1   SC.G.2.4.2         | PTS: 1        | DIF: Webb's I                |  |
| 9. ANS: F, Atmospheric<br><br>PTS: 1              | DIF: Webb's I | STA: SC.D.2.4.1              |  |
| 10. ANS: F, Nonpoint<br><br>PTS: 1                | DIF: Webb's I | STA: SC.G.2.4.6              |  |
| 11. ANS: F, bioremediation<br><br>PTS: 1          | DIF: Webb's I | STA: SC.G.1.4.1              |  |
| 12. ANS: F, Safe Drinking Water Act<br><br>PTS: 1 | DIF: Webb's I | STA: SC.D.2.4.1   SC.G.2.4.2 |  |

### MULTIPLE CHOICE

- |            |        |               |                              |
|------------|--------|---------------|------------------------------|
| 13. ANS: C | PTS: 1 | DIF: Webb's I |                              |
| 14. ANS: C | PTS: 1 | DIF: Webb's I | STA: SC.D.2.4.1              |
| 15. ANS: B | PTS: 1 | DIF: Webb's I | STA: SC.G.2.4.6              |
| 16. ANS: B | PTS: 1 | DIF: Webb's I | STA: SC.G.2.4.6              |
| 17. ANS: B | PTS: 1 | DIF: Webb's I | STA: SC.G.2.4.6              |
| 18. ANS: B | PTS: 1 | DIF: Webb's I | STA: SC.D.2.4.1              |
| 19. ANS: B | PTS: 1 | DIF: Webb's I | STA: SC.G.2.4.6              |
| 20. ANS: C | PTS: 1 | DIF: Webb's I | STA: SC.D.2.4.1   SC.G.2.4.5 |
| 21. ANS: B | PTS: 1 | DIF: Webb's I | STA: SC.G.2.4.6              |
| 22. ANS: B | PTS: 1 | DIF: Webb's I | STA: SC.G.1.4.1              |

23. ANS: B	PTS: 1	DIF: Webb's I	STA: SC.D.2.4.1   SC.G.2.4.5
24. ANS: B	PTS: 1	DIF: Webb's I	STA: SC.G.2.4.6
25. ANS: B	PTS: 1	DIF: Webb's I	STA: SC.D.2.4.1