

THE GREAT CARBON CYCLING QUIZ

DIRECTIONS: Circle the correct answer.

1. Carbon is found in the
 - a) hydrosphere
 - b) geosphere
 - c) biosphere
 - d) all of the above
2. Plants use which gas for photosynthesis?
 - a) hydrocarbons
 - b) carbon dioxide
 - c) oxygen
 - d) carbon monoxide
3. What percent of all living organisms' dry weight is made up of carbon?
 - a) 70%
 - b) 90%
 - c) 50%
 - d) 35%
4. Carbon dioxide is released into the atmosphere through
 - a) respiration and decay.
 - b) light energy absorption.
 - c) evaporation.
 - d) photosynthesis.
5. What produces the most oxygen on Earth?
 - a) respiration
 - b) plants
 - c) phytoplankton
 - d) fast track carbon recycling.

Fill in the blanks with the appropriate words. A word may be used more than once or not at all.

Carbon sink producers plants penguins greenhouse gas krill animals
 Seals hydrogen oxygen carbon calcium geosphere atmosphere

6. Carbon bonds with oxygen, _____, and _____.
7. Living things are carbon consumers and _____.
8. Phytoplankton is a major food source for _____.
9. In the ocean food chain, krill is a major food source for fish that are then eaten by _____ and _____.
10. Hydrocarbon compounds are molecules made of _____ and _____.
11. Carbon dioxide is called a _____ because it absorbs heat from the sun and warms the Earth.
12. The sources of excess _____ are automobile and industrial plant emissions and world-wide coal burning.
13. An area that absorbs carbon in water or on land and does not recycle is a _____.
14. Slow track carbon recycling occurs in the _____.
15. Fast track carbon recycling occurs in _____ and _____.

Fill in the blank with the appropriate word for the corresponding definition.

carbon	carbon dioxide	greenhouse effect	biosphere	
hydrosphere	atmosphere	fast track	carbon recycling	carbon sink
hydrocarbons	slow track	carbon recycling	geosphere	atmosphere

16. _____ The sphere related to the Earth's crust.
17. _____ The result of excess carbon dioxide in the atmosphere causing global warming.
18. _____ A nonmetallic chemical element found in many inorganic compounds and all organic compounds.
19. _____ Any compound containing only hydrogen and carbon.
20. _____ carbon trapped in the earth's crust for thousands and sometimes millions of years. Carbon is returned to the atmosphere by man's mining and drilling for oil and gas.
21. _____ The air surrounding the Earth's crust.
22. _____ a colorless, odorless, incombustible gas, somewhat heavier than air that passes out of the lungs in respiration and is used in plants for photosynthesis.
23. _____ The process that begins with photosynthesis in plants and phytoplankton, carries on through the animals, and ends with decomposition of plants, animals, and wastes.
24. _____ The sphere related to water bodies.
25. _____ The sphere related to all living things.