

# Handout 1 (pink) Oceanography

Name \_\_\_\_\_ Period \_\_\_\_\_

## Oceanography and Properties of Ocean Water Standard 4 Objective 3 Indicator b

### Chapter 19: Section 1: Directed Reading Pages 471-474

#### Section: The Water Planet (page 471)

- \_\_\_\_\_ 1. The body of salt water covering nearly three-quarters of the Earth's surface is called the  
a. Earth's ocean.      b. Pacific Ocean.      c. salt-water ocean.      d. global ocean
- \_\_\_\_\_ 2. How many of the known planets have a covering of liquid water similar to that of Earth?  
a. one      b. three      c. all      d. none
- \_\_\_\_\_ 3. What percentage of water on Earth does the global ocean contain?  
a. 50%      b. 85%      c. 97%      d. 100%

#### DIVISIONS OF THE GLOBAL OCEAN (page 471)

- \_\_\_\_\_ 4. The largest ocean on Earth's surface is the  
a. Atlantic Ocean.      b. Pacific Ocean.      c. Indian Ocean.      d. Southern Ocean.
- \_\_\_\_\_ 5. Earth's deepest ocean is the  
a. Atlantic Ocean.      b. Pacific Ocean.      c. Indian Ocean.      d. Southern Ocean.

#### EXPLORATION OF THE OCEAN (page 472)

- \_\_\_\_\_ 6. The study of the physical and chemical make-up of the ocean as well as its life-forms is called  
a. oceanography.      b. oceanology.      c. sedimentology.      d. oceano-biology
7. What valuable information do scientists gather from samples drilled by *JOIDES Resolution*?
8. How fast do the sound waves from a sonar transmitter travel through sea water? \_\_\_\_\_.
9. What is the difference between a *bathyscaph* and a *bathysphere*?
10. Submersibles have helped scientists make exciting discoveries about the \_\_\_\_\_.
11. What characteristics of the deep ocean made it unlikely that oceanographers would discover life forms?

## Chapter 20: Section 1: Directed Reading Pages 493-500

### Section: Properties of Ocean Water (page 493)

- \_\_\_\_\_ 1. Scientists do NOT describe ocean water by using properties such as
- a. presence of dissolved gases and the presence of dissolved solids.
  - b. salinity and temperature.
  - c. presence of dissolved vitamins and dissolved minerals.
  - d. density and color.

### DISSOLVED GASES (page 493)

- \_\_\_\_\_ 2. Most oxygen in the ocean
- a. enters at the surface of the ocean from the atmosphere.
  - b. enters as dissolved gas from streams and rivers.
  - c. is made by plants in the ocean through photosynthesis.
  - d. is released as carbon dioxide dissolves.
- \_\_\_\_\_ 3. Gases dissolve most readily in what kind of water?
- a. ocean water
  - b. fresh water
  - c. warm water
  - d. cold water
- \_\_\_\_\_ 4. When ocean temperature rises,
- a. excess gas is released into the atmosphere.
  - b. the ocean absorbs and holds carbon dioxide.
  - c. carbon dioxide is equalized between the ocean and atmosphere.
  - d. no change takes place.
- \_\_\_\_\_ 5. How many times more carbon is in the oceans than in the atmosphere?
- a. 20 times
  - b. 40 times
  - c. 60 times
  - d. 80 times
- \_\_\_\_\_ 6. Because of their ability to dissolve and contain a large amount of carbon dioxide, oceans are often referred to as a(n)
- a. carbon trap.
  - b. carbon sink.
  - c. infinite water supply.
  - d. Earth thermostat.
- \_\_\_\_\_ 7. Because gaseous carbon dioxide affects the atmosphere's ability to trap thermal energy from the sun,
- a. oceans warm easily in the tropics.
  - b. oceans are important in the regulation of climate.
  - c. the temperature of the ocean fluctuates with the daily temperature.
  - d. land temperature is directly related to the carbon dioxide content of the closest ocean.

### DISSOLVED SOLIDS (page 495)

8. Elements that exist in very small amounts are called \_\_\_\_\_.

### SALINITY OF OCEAN WATER (page 496)

9. A measure of the amount of dissolved salts and other solids in a given amount of liquid is \_\_\_\_\_.

### TEMPERATURE OF OCEAN WATER (page 497)

- \_\_\_\_\_ 10. Ocean temperature varies depending on
- a. depth of water and percentage of salinity on the surface of the oceans.
  - b. depth of water and location on the surface of the oceans.
  - c. the number of plants and animals living in the surface water.
  - d. the amount of dissolved minerals on the surface of the oceans.
11. Why does the temperature of the zone of surface water decrease only slightly as the depth increases?
12. Where does the greatest amount of solar energy reach the surface of the ocean?
13. A floating layer of sea ice that completely covers an area of the ocean surface is called \_\_\_\_\_.
14. How does the 2°C temperature of the deep zone affect the density of the ocean water?
15. How does the amount of dissolved gases in cold, deep ocean water compare to the amount of dissolved gases in warm shallow, ocean water?

### DENSITY OF OCEAN WATER (page 499)

16. Why does ocean water appear blue?
17. How do scientists determine the presence of phytoplankton in the ocean?