

Name \_\_\_\_\_ # \_\_\_\_\_  
Study Guide - Populations and Ecosystems Chapter #3

Define the following words.

Biomes \_\_\_\_\_

Tropical rain forest \_\_\_\_\_

Grassland \_\_\_\_\_

Desert \_\_\_\_\_

Deciduous forest \_\_\_\_\_

Taiga \_\_\_\_\_

Tundra \_\_\_\_\_

River \_\_\_\_\_

Lake \_\_\_\_\_

Wetland \_\_\_\_\_

Shoreline \_\_\_\_\_

Coastal ocean \_\_\_\_\_

Open ocean \_\_\_\_\_

Biodiversity \_\_\_\_\_

Threatened \_\_\_\_\_

Endangered \_\_\_\_\_

Extinct \_\_\_\_\_



# INVESTIGATION 1

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- 1.** Describe some abiotic and biotic factors that vary among different land biomes.

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- 2.** Give an example of each of the two main kinds of water ecosystems.

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- 3.** Deciduous forests and grasslands have supported large human populations. Why do you think this is so?

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- 4.** Explain how desert plants and animals are adapted to live in their ecosystem.

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## INVESTIGATION 2

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1. What does biodiversity mean on Earth and within a species?

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2. What are the three major factors that affect biodiversity in an ecosystem?

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3. Why does biodiversity vary among ecosystems?

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4. Identify a favorite species you have read about that you fear is in danger of becoming extinct. Why is it endangered? Can anything be done to save it?

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8. Area where land and water meet

\_\_\_\_\_

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9. Freshwater ecosystem characterized by still water

\_\_\_\_\_

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10. In danger of becoming extinct

\_\_\_\_\_

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11. Ecosystem where land and ocean meet

\_\_\_\_\_

11

12. Biome with many trees in which rainfall is moderate

\_\_\_\_\_

12

13. Biome characterized by cold temperatures and low precipitation

\_\_\_\_\_

13

14. Major land ecosystems with distinct combinations of plants and animals

\_\_\_\_\_

14

15. No longer living as a species

\_\_\_\_\_

15

16. Shallow saltwater ecosystem close to the shoreline

\_\_\_\_\_

16

**Answer to Riddle**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## Check What You Know

Circle the letter of the correct answer.

1. Of all the water on Earth, \_\_\_\_\_ is fresh.  
a. 97 percent      b. about half      c. 3 percent      d. 1 percent
2. A biome that is similar to a marsh but has mostly trees and shrubs is a \_\_\_\_\_.  
a. bog      b. pond      c. shoreline      d. swamp
3. The basis of the food chain in the coastal ocean is \_\_\_\_\_.  
a. plankton      b. algae      c. jellyfish      d. perch
4. The biodiversity of an ecosystem depends on its size, its land features, and its \_\_\_\_\_.  
a. animals      b. latitude      c. plants      d. longitude
5. You belong to the species that scientists call \_\_\_\_\_.  
a. *Lumbricus terrestris*      c. people  
b. *Homo sapiens*      d. human beings

## Word Power

Write the letter of the term that best matches the description.

- |     |   |               |
|-----|---|---------------|
| ___ | 6. running water that empties into a lake, an ocean, or a river | a. shoreline  |
| ___ | 7. an area where land and water meet                            | b. lake       |
| ___ | 8. a large standing body of fresh water                         | c. river      |
| ___ | 9. where the ocean meets the edges of the land                  | d. wetland    |
| ___ | 10. vast area covering most of the globe                        | e. open ocean |

1. Use the words in the box to complete the sentences.

biomes    deciduous forests    desert    rain forests    tundra

Let's take an imaginary trip around the world by thinking about the world's largest ecosystems, or \_\_\_\_\_. In the warmest climates, there are lush \_\_\_\_\_, where it rains almost every day. What a contrast to the \_\_\_\_\_, which can also be very hot, but where it hardly rains at all. Farther north the \_\_\_\_\_ grow. There the winters are cold, but the summers are warm and wet. Even farther north are the taiga, where you find coniferous forests, and the \_\_\_\_\_, where the subsoil stays frozen all year.

2. Write the name of a biome each of these organisms would call home.



a. \_\_\_\_\_



b. \_\_\_\_\_



c. \_\_\_\_\_



d. \_\_\_\_\_



e. \_\_\_\_\_

For items 1–4, write the letter of the term that best matches the definition.

- |  |                        |
|--|------------------------|
| ___ 1. gone forever as a species         | <b>a.</b> biodiversity |
| ___ 2. abundance of different life forms | <b>b.</b> threatened   |
| ___ 3. at risk of becoming endangered    | <b>c.</b> endangered   |
| ___ 4. in danger of becoming extinct     | <b>d.</b> extinct      |

9. What is the greatest threat to the biodiversity of biomes all over the world? Why?

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Name \_\_\_\_\_ # \_\_\_\_\_

**Study Guide - Populations and Ecosystems Chapter #3**

**Fill in the blanks with the correct terms.**

1. \_\_\_\_\_ are ecosystems that cover large areas of land.
2. An area's ecosystem is determined by the \_\_\_\_\_ and the \_\_\_\_\_ factors of the area together. Which abiotic factor in a biome is closely dependent on latitude? \_\_\_\_\_
3. In the lush, green tropical rain forest, heavy rainfall and a warm climate create an environment where many varieties of \_\_\_\_\_ and \_\_\_\_\_ live in the "layers" of the forest, from the ground to the tops of trees.
4. Tree branches form one layer known as the \_\_\_\_\_ in a tropical rain forest.
5. \_\_\_\_\_ are wide-open fields of grass that attract \_\_\_\_\_ and \_\_\_\_\_ as well as their predators.
6. \_\_\_\_\_ can be either hot or cold, but are always \_\_\_\_\_.
7. Where winters are cold and summers are warm and wet, you will find \_\_\_\_\_.
8. In the \_\_\_\_\_ where the winters are long and cold, you will find \_\_\_\_\_ of evergreens such as spruce, pine and fir.
9. The Arctic grassland north of the taiga where the subsoil is frozen year-round is called the \_\_\_\_\_. It has long, cold winters and cool summers.
10. About three-fourths (75%) of Earth's surface is covered by \_\_\_\_\_. There are two main kinds of water ecosystems: \_\_\_\_\_ and \_\_\_\_\_.
11. Only 3% of the water in Earth is \_\_\_\_\_. And 2% of that water is locked in \_\_\_\_\_.

12. The remaining 1% fresh water fills up all the \_\_\_\_\_.
13. Running water that empties into a lake, an ocean, or another river is a \_\_\_\_\_.
14. The underwater ecosystems of rivers can \_\_\_\_\_.
15. An area where land and water meet is called a \_\_\_\_\_. In this freshwater ecosystem the concentration of \_\_\_\_\_ is less than in a \_\_\_\_\_. Explain the following wetlands.
- Marsh \_\_\_\_\_
  - Swamp \_\_\_\_\_
  - Bog \_\_\_\_\_
16. A large standing body of fresh water that contains a variety of habitats is a \_\_\_\_\_.
17. What saltwater ecosystem is where the ocean meets the edges of the land? \_\_\_\_\_ The organisms that live here are affected by \_\_\_\_\_ and \_\_\_\_\_.
18. What saltwater ecosystem is shallow enough that sunlight can shine all the way down to the coastal floor? \_\_\_\_\_ The organisms that form the basis of the food chain here are \_\_\_\_\_.
19. Saltwater makes up about \_\_\_\_\_ of Earth's water.
20. T or F Ocean water generally contains about 3.5% salt, but this amount can vary.
21. How does the amount of salt in water affect organisms? \_\_\_\_\_
22. The largest ecosystem on the Earth is the \_\_\_\_\_.
23. \_\_\_\_\_ refers to the great variety (abundance) of different organisms that live on Earth.

24. **Biodiversity of an ecosystem depends on three major factors:**

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

25. \_\_\_\_\_ **ecosystems support more species than do** \_\_\_\_\_ **ecosystems.**

26. When a **species is gone forever**, it is said to \_\_\_\_\_.

27. A **species that is near extinction** is said to be \_\_\_\_\_.

28. Species that may soon become endangered are called \_\_\_\_\_.

29. What is the greatest threat to the biodiversity of biomes all over the world? Why?

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30. Why is biodiversity important to all people?

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