

Ecology (ScienceGHS4)

Name: _____

Date: _____

1. The scientist who studies plants and animals and their interaction would be a(n)

- A. botanist.
 - B. ecologist.
 - C. geologist.
 - D. zoologist.
-

2. The study of the interaction of organisms with each other and their surroundings is

- A. botany.
 - B. ecology.
 - C. morphology.
 - D. zoology.
-

3. Which branch of biology is defined as the study of the relationship of living things to each other and to their surroundings?

- A. anatomy
 - B. ecology
 - C. genetics
 - D. microbiology
-

4. In the study of ecology, what is a population?

- A. all plants and animals in a given place
 - B. all the living and nonliving things in an environment
 - C. all the organisms of one particular species in a given place
 - D. different plants interacting with each other in a given place
-

5.

Which of the following is an example of ecological succession?

- A. a moth species evolving gray wings for camouflage
 - B. a dog chasing a bird to use it for nutritional value
 - C. a pine forest slowly replacing a grassy meadow
 - D. leaves decomposing in a forest
-

6.

In the typical terrestrial ecosystem, the primary producers are usually

- A. abiotic.
 - B. animals.
 - C. herbivores.
 - D. plants.
-

7.

Ecosystems are made up of both abiotic and biotic factors. Which of the following is an abiotic part of an ecosystem?

- A. water
 - B. algae
 - C. lichens
 - D. yeast
-

8.

Replacing inorganic nutrients in soil is accomplished primarily by the

- A. second-order consumers.
 - B. first-order consumers.
 - C. decomposers.
 - D. herbivores.
-

9.

Which of the following **best** describes a biome?

- A. areas of like climate and ecology
 - B. primary productivity per square kilometer
 - C. all of the living organisms in an ecosystem
 - D. areas that include the entire range of an organism
-

10. Ecology is the study of

- A. plants.
- B. echoes.
- C. contagious diseases.
- D. organisms and their environments.

11. The field of science that studies the interactions among living and nonliving factors in the environment is

- A. anthropology.
 - B. ecology.
 - C. embryology.
 - D. zoology.
-

12.

The origin of all of the energy found in **most** ecosystems is

- A. the sun.
 - B. the food pyramid.
 - C. primary producers.
 - D. the top predator.
-

13. What makes the sun the ultimate source of energy for all living things?

- A. conversion of radiation into mechanical energy in animals
 - B. emission of oxygen into the atmosphere
 - C. effects of solar winds on plant growth
 - D. use of the sun in photosynthesis in plants
-

14. Which organism is heterotrophic?

- A. moss
 - B. algae
 - C. oak tree
 - D. mushroom
-

15.

Physical and chemical factors may affect an organism's survival. These abiotic factors may include

- A. infectious parasites.
 - B. autotrophs and chemoautotrophs.
 - C. pathogens such as fungi and bacteria.
 - D. available gases such as O₂, CO₂ and N₂.
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16. How can an infestation of insects in a peach orchard best be controlled in an environmentally friendly way?

- A. spraying the trees with an insecticide
 - B. removing the infected trees
 - C. increasing irrigation to the trees
 - D. introducing a predator of the insect pests
-

17.

The biome is the largest ecological unit. The type of biome is determined by what factors?

- A. latitude and climate
 - B. energy flow through the system
 - C. ratio of producers to consumers
 - D. numbers of species in the food web
-

18. The branch of biology that studies how living things interact with their environment is

- A. ecology.
 - B. entomology.
 - C. microbiology.
 - D. zoology.
-

19.

Ecosystems are made up of both abiotic and biotic factors. Which of the following factors is considered biotic?

- A. sand
 - B. water
 - C. bacteria
 - D. carbon dioxide
-

20.

Which of the following is an abiotic factor in an ocean ecosystem?

- A. coral
- B. whale
- C. water
- D. shrimp

Answer Key

1. B) ecologist.
2. B) ecology.
3. B) ecology
4. C) all the organisms of one particular species in a given place
5. C) a pine forest slowly replacing a grassy meadow
6. D) plants.
7. A) water
8. C) decomposers.
9. A) areas of like climate and ecology
10. D) organisms and their environments.
11. B) ecology.
12. A) the sun.
13. D) use of the sun in photosynthesis in plants
14. D) mushroom
15. D) available gases such as O₂, CO₂ and N₂.
16. D) introducing a predator of the insect pests
17. A) latitude and climate
18. A) ecology.
19. C) bacteria
20. C) water