

Skills Worksheet

Concept Review**MATCHING**

In the space provided, write the letter of the term or phrase that best matches the description.

- | | |
|---|----------------------|
| _____ 1. an individual living thing | a. ecosystem |
| _____ 2. a group of various species that live in the same place and interact with each other | b. population |
| _____ 3. living or once living part of an ecosystem | c. natural selection |
| _____ 4. unequal survival and reproduction that results from the presence or absence of particular traits | d. organism |
| _____ 5. all the organisms living in an area and their physical environment | e. resistance |
| _____ 6. change in the genetic characteristics of a population from one generation to the next | f. abiotic factor |
| _____ 7. all the members of the same species that live in the same place at the same time | g. evolution |
| _____ 8. nonliving part of an ecosystem | h. species |
| _____ 9. ability of one or more organisms to tolerate a particular chemical designed to kill it | i. community |
| _____ 10. group of organisms that are closely related and that can mate to produce fertile offspring | j. biotic factor |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 11. What kind of habitat does a red backed salamander need to survive?
- a. damp forest floor
 - b. sunny top of a tree
 - c. dry forest floor
 - d. sunny desert rock

Concept Review *continued*

- _____ 12. Which of the following kingdoms include organisms that can make their own food?
- protists and plants
 - plants and animals
 - fungi and plants
 - fungi and protists
- _____ 13. The Chihuahua is a dog that exists because of
- natural selection.
 - artificial selection.
 - resistance.
 - abiotic factors.
- _____ 14. Humans have promoted the evolution of insects that are resistant to insecticides by
- trying to control pests with chemicals.
 - using insecticides that are outdated.
 - using the wrong insecticide.
 - breeding more useful insects.
- _____ 15. Which of the following is *not* true of an adaptation?
- It is an advantage to an organism in certain environments.
 - It increases an organism's chance of reproducing.
 - It increases an organism's chance of survival.
 - It decreases an organism's chance of evolving.
- _____ 16. Which of the following is *not* one of the kingdoms of living things?
- archaebacteria
 - protobacteria
 - eubacteria
 - protists
- _____ 17. One way that bacteria and fungi are important to the environment is that they
- produce oxygen.
 - use the sun's energy to make their own food.
 - are a major food source in many ecosystems.
 - break down dead organisms.
- _____ 18. Phytoplankton are important protists because they are the initial source of
- food in most land ecosystems.
 - food in most ocean and freshwater ecosystems.
 - oxygen in the atmosphere.
 - Both (a) and (b)
- _____ 19. Many angiosperms depend on
- other animals in the oceans.
 - gymnosperms for reproducing.
 - plants for food.
 - animals to carry pollen and disperse seeds.
- _____ 20. Which of the following characteristics is shared by bacteria, fungi, and plants?
- They usually have cell walls.
 - They have cell nuclei.
 - They are single celled.
 - They have the ability to make their own food.

Skills Worksheet

Critical Thinking**ANALOGIES**

In the space provided, write the letter of the pair of terms or phrases that best completes the analogy shown. An analogy is a relationship between two pairs of words or phrases written as $a : b :: c : d$. The symbol $:$ is read "is to," and the symbol $::$ is read "as."

- | | |
|---|---|
| _____ 1. antibiotic : bacteria ::
a. insecticide : insect
b. ant : cockroach
c. pesticide : insecticide
d. insect : species | _____ 6. skeleton : human body ::
a. foot : birds
b. egg : frogs
c. cell walls : fungi
d. rock : sand |
| _____ 2. biotic : abiotic ::
a. rocks : sand
b. air : organism
c. organism : water
d. species : population | _____ 7. plants : land ecosystems ::
a. sand : desert ecosystems
b. phytoplankton : water ecosystems
c. forests : trees
d. snow : winter |
| _____ 3. organism : habitat ::
a. community : population
b. fish : coral reef
c. shelter : nest
d. squirrel : pond | _____ 8. Hawaiian honeycreeper's beak : obtaining nectar ::
a. sunburn : wearing sunscreen
b. buying stamps : getting mail
c. insect's skeleton : keeping warm
d. sweet nectar : attracting pollinators |
| _____ 4. population : species ::
a. field mice in Florida : field mice
b. field mice in Florida : field mice in Maine
c. field mice : rodents
d. total organisms in a prairie : total bison in a herd | _____ 9. cone : pine tree ::
a. flower : rose bush
b. leaves : oak tree
c. fruit : wildflowers
d. roots : cactus |
| _____ 5. natural selection : evolution ::
a. jogging : running
b. floods : rain
c. dog : cat
d. studying : passing a test | _____ 10. vertebrates : animals ::
a. bacteria : protists
b. angiosperms : plants
c. molds : bacteria
d. algae : fungi |

Critical Thinking *continued***INTERPRETING OBSERVATIONS**

Read the following scenario, and answer the questions below.

Imagine that a population of rabbits was released during the winter into an ecosystem that is covered with snow most of the year. Fifty percent of the rabbits were dark gray and 50 percent of the rabbits were white. The only animal in the ecosystem that eats rabbits is a species of hawk.

The next winter, scientists visit the area and observe the rabbit population. As expected, the overall rabbit population has grown and the percentage of white rabbits has increased.

11. Explain what probably caused the increase in the percentage of white rabbits.

12. Predict what would happen to the rabbit population if the climate changed and the ecosystem only had snow a few months out of the year. Explain your answer.

13. Use a rabbit population as an example to explain Darwin's theory of evolution by natural selection.

Critical Thinking *continued*

AGREE OR DISAGREE

Agree or disagree with the following statements, and support your answer.

14. A tiny Chihuahua and a huge Great Dane have no common ancestors.

15. Prescribing antibiotics for every human disease will help eliminate diseases caused by bacteria.

16. A community can contain two populations of the same species.

Critical Thinking *continued*

REFINING CONCEPTS

The statements below challenge you to refine your understanding of concepts covered in the chapter. Think carefully, and answer the questions that follow.

17. A family has an infestation of ants and wants to get rid of them. Why are insect pests difficult to control?

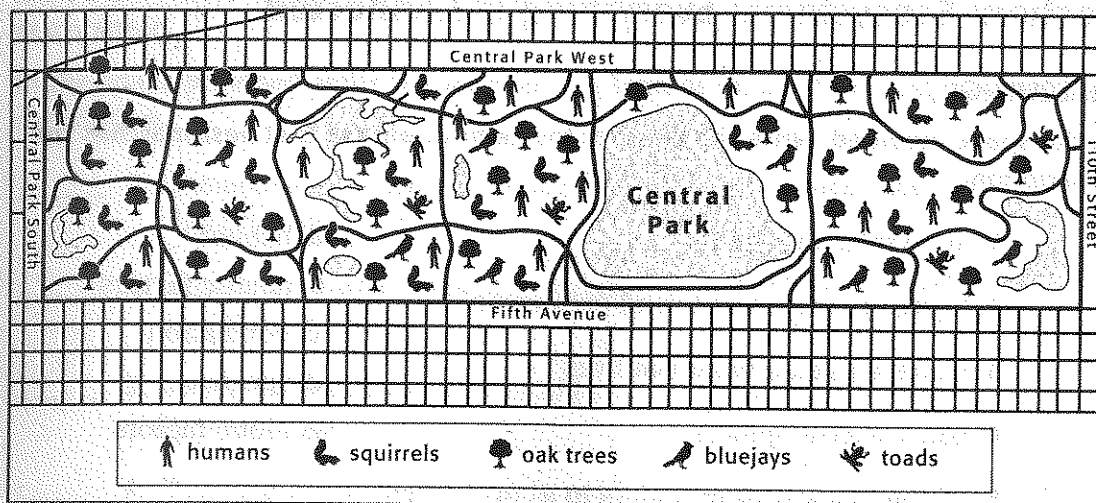
18. A friend says that it does not matter what happens in other ecosystems and that you won't be affected because you live in the city. Do you think your friend is right? Justify your answer.

19. It is safer to eat mushrooms grown on farms because many mushrooms that grow in the wild are poisonous. Imagine that to ensure that no one ate poisonous mushrooms, chemicals were used to kill fungi in a forest. How would this affect the forest ecosystem? Explain your reasoning.

Skills Worksheet

PARK HABITAT

Map Skills



A habitat does not have to be large in size. Small areas, such as your backyard, can be home to many communities of species. Every day in New York City's Central Park, hundreds of different species interact.

Use the map above to answer the questions below.

1. **Analyzing Data** Identify one organism, one population, and one community.

2. **Using a Key** Which organism has the largest population? Which organism has the smallest population?

3. **Analyzing Data** Do the items in the key represent biotic or abiotic factors?

4. **Inferring Relationships** List specific characteristics of this park that make it a habitat.

5. **Making a Hypothesis** If the human population decreased, how do you think other populations would be affected?
