

True/False

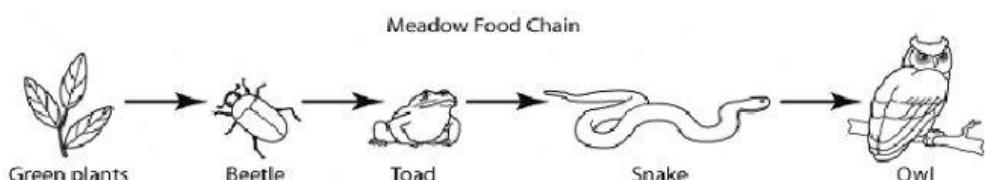
Indicate whether the statement is true or false.

- 1. A food chain is the feeding relationships among all of the organisms in an ecosystem.
- 2. Competition occurs when organisms try to use the same limited resource.
- 3. A limiting factor is an environmental factor that increases the growth of a population.
- 4. Biomes are characterized by temperature, precipitation, and the plant and animal communities that live there.
- 5. A habitat is the role of a population in its community, including its environment and its relationship with other species.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

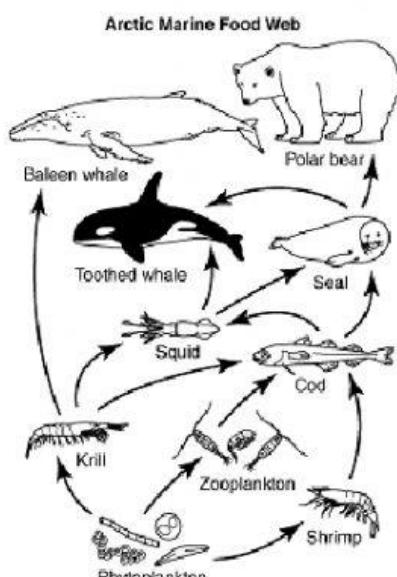
- 1. The figure below shows a food chain that might exist in a field or meadow.



Which organism is the primary consumer in this food chain?

- A. owl
- B. toad
- C. beetle
- D. plant leaf

- 2. The food web below shows some of the feeding relationships among organisms in Arctic waters.



Which organism would be least affected by overfishing for cod in Arctic waters?

- A. seals
- B. shrimp
- C. baleen whales
- D. toothed whales

3. Most producers use sunlight to make food through photosynthesis. What are the products of photosynthesis?

- sugar and oxygen
- carbon dioxide and water
- chlorophyll, protein, and DNA
- plant stems, leaves, and root systems

4. Small birds called Egyptian plovers sometimes get their food by picking it off the hides of crocodiles. For this reason, they are also known as crocodile birds. Which kind of relationship do crocodiles and Egyptian plovers have?

- mutualism
- parasitism
- predator-prey
- commensalism

5. Which of the following is an example of commensalism?

- A bird is hunted, killed, and eaten by a cat.
- A bird eats berries, then spreads the seeds.
- A bird finds an existing hole in a tree and builds a nest in it.
- A bird finds a small shellfish on a beach, cracks its shell, and eats it.

6. In a relationship between two organisms, sometimes one organism is predator and the other is prey. Which of the following is the best description of prey?

- an organism that eats another organism
- an organism that is eaten by another organism
- an organism that is harmed by another organism
- an organism that another organism benefits from

7. What causes competition to occur in an environment?

- Good conditions make resources plentiful.
- Organisms struggle for a limited resource.
- Members of a population have different roles.
- A population falls below the environment's carrying capacity.

8. During the 1930s, a large region of the Great Plains experienced a drought that turned grasslands into dust. How did this most likely affect the carrying capacity for populations of farm animals?

- The carrying capacity increased at first and then decreased as time went on.
- The carrying capacity decreased because the environment no longer had enough resources.
- The carrying capacity stayed the same because it depends on the animals rather than the environment.
- The carrying capacity increased because there was more room for animals once the plants were gone from the environment.

9. A scientist observes a population crash among eagles within an island ecosystem. Which event might have led to such a crash?

- Travelers brought new crops to the island.
- A drop in sea level exposed more of the island.
- The closing of a dam caused the island to flood.
- Warm weather conditions resulted in an abundance of food.

10. Which of the following is the most likely reason that a population might crash?

- The competition for the same resource suddenly drops.
- The number of prey suddenly increases.
- The number of predators suddenly decreases.
- The carrying capacity of the environment suddenly drops.

____ 11. How are tropical plants such as bromeliads adapted to the biome in which they live?

- A. They grow from tree branches rather than the forest floor, which helps them to absorb more sunlight.
- B. They have long, thick roots, which helps them to gather the nutrients that are found deep within the soil.
- C. They have hollow leaves and stems for storing water, which helps them to survive long periods with little rainfall.
- D. They lose their leaves during the winter, which helps them to save energy when the temperature falls and prevents the buildup of snow.

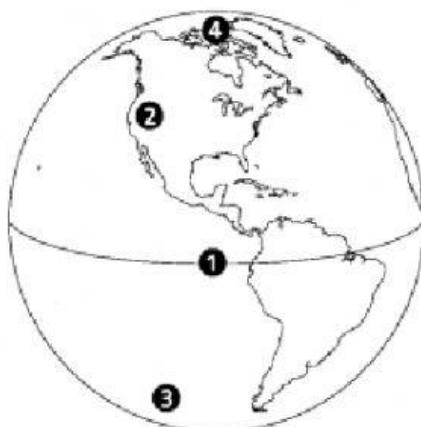
____ 12. How is a tundra biome similar to a desert biome?

- A. Both biomes have dry, rocky soils.
- B. Both biomes lack plants or animals.
- C. Both biomes are hot during the day and cold at night.
- D. Both biomes are characterized by very little precipitation.

____ 13. Which is an example of a biome?

- A. a cave
- B. an old tree
- C. a large lake
- D. a tropical rain forest

____ 14. The diagram below shows an outline of Earth.



At which location is a tropical rain forest biome most likely to be located?

- A. Location 1
- B. Location 2
- C. Location 3
- D. Location 4