

# Fundamentals of Ecology

Ecology · Practice Test · 15 Questions

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**1. What is the primary energy source for almost all ecosystems on Earth?**

- A) Geothermal energy
- B) The Moon's gravitational pull
- C) Photosynthesis from the Sun
- D) Chemical energy from deep-sea vents

**2. Which ecological term describes all the living organisms in a particular area, interacting with each other?**

- A) Habitat
- B) Niche
- C) Ecosystem
- D) Community

**3. In a food chain, organisms that produce their own food, usually through photosynthesis, are called:**

- A) Consumers
- B) Decomposers
- C) Carnivores
- D) Producers

**4. What is the term for the specific role an organism plays within its ecosystem, including its diet, habitat, and interactions?**

- A) Biome
- B) Ecological niche
- C) Population
- D) Community

**5. Which biogeochemical cycle involves the movement of carbon atoms through the atmosphere, oceans, land, and living organisms?**

- A) Nitrogen cycle
- B) Water cycle
- C) Phosphorus cycle
- D) Carbon cycle

**6. A relationship where both species benefit is known as:**

- A) Parasitism
- B) Commensalism
- C) Mutualism
- D) Predation

**7. Which ecological factor refers to the non-living physical and chemical elements of an environment, such as temperature, sunlight, and water?**

- A) Biotic factors
- B) Abiotic factors
- C) Population density
- D) Biodiversity

**8. What is the process by which organisms better adapted to their environment tend to survive and produce more offspring?**

- A) Genetic drift
- B) Natural selection
- C) Mutation
- D) Speciation

**9. The Amazon rainforest is an example of a large-scale ecological area characterized by specific climate and dominant plant and animal life. What is this called?**

- A) Ecosystem
- B) Habitat
- C) Biome
- D) Community

**10. What are organisms that break down dead organic matter called?**

- A) Producers
- B) Consumers
- C) Decomposers
- D) Herbivores

**11. The total number of individuals of a single species living in a specific area at a particular time is referred to as a:**

- A) Community
- B) Ecosystem
- C) Population
- D) Niche

**12. Which of these is a common example of an abiotic factor affecting an aquatic ecosystem?**

- A) Fish
- B) Algae
- C) Water temperature
- D) Bacteria

**13. What is the term for the variety of life in the world or in a particular habitat or ecosystem?**

- A) Evolution
- B) Adaptation
- C) Biodiversity
- D) Symbiosis

**14. In a predator-prey relationship, what is the organism that hunts and kills another organism for food called?**

- A) Prey
- B) Producer
- C) Scavenger
- D) Predator

**15. The process by which water moves from the atmosphere to the Earth's surface as rain, snow, sleet, or hail is known as:**

- A) Evaporation
- B) Transpiration
- C) Condensation
- D) Precipitation