

Middle School Ecology Essentials

Ecology · Practice Test · 25 Questions

1. Which term describes an organism that can produce its own food using sunlight?

- A) Consumer
- B) Decomposer
- C) Producer
- D) Scavenger

2. In an energy pyramid, which level contains the greatest amount of available energy?

- A) Tertiary consumers
- B) Secondary consumers
- C) Primary consumers
- D) Producers

3. What is the primary role of fungi and bacteria in an ecosystem?

- A) Photosynthesis
- B) Decomposition
- C) Predation
- D) Pollination

4. Which of the following is a biotic factor in a forest ecosystem?

- A) Soil pH
- B) Temperature
- C) Tree species
- D) Annual rainfall

5. What do we call the specific physical area where an organism lives and interacts with its environment?

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

6. Which process involves the movement of water from the surface of Earth into the atmosphere as gas?

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

7. What is the term for a group of individuals of the same species living in the same area?

- A) Population
- B) Ecosystem
- C) Biome
- D) Biosphere

8. An organism that eats only plants is classified as a:

- A) Carnivore
- B) Omnivore
- C) Herbivore
- D) Detritivore

9. Which gas is absorbed by plants from the atmosphere during the process of photosynthesis?

- A) Oxygen
- B) Nitrogen
- C) Carbon dioxide
- D) Hydrogen

10. What is the main source of energy for almost all life on Earth?

- A) Chemical bonds
- B) The Sun
- C) Geothermal heat
- D) Fossil fuels

11. Which relationship describes one organism benefiting while the other is harmed?

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

12. What is a biological community of interacting organisms and their physical environment called?

- A) Ecosystem
- B) Population
- C) Species
- D) Biome

13. Which of the following is an example of an abiotic factor?

- A) Grass
- B) Predator
- C) Sunlight
- D) Bacteria

14. What is the role of a secondary consumer in a food chain?

- A) Eating producers
- B) Eating primary consumers
- C) Making its own food
- D) Breaking down dead matter

15. Which biome is characterized by low temperatures and a layer of permanently frozen subsoil called permafrost?

- A) Tundra
- B) Desert
- C) Rainforest
- D) Grassland

16. The total variety of all living organisms in a specific area is known as:

- A) Sustainability
- B) Biodiversity
- C) Adaptation
- D) Succession

17. What process converts atmospheric nitrogen into a form that plants can use?

- A) Nitrogen fixation
- B) Respiration
- C) Combustion
- D) Evaporation

18. Which of these is considered a scavenger?

- A) Vulture
- B) Green plant
- C) Mouse
- D) Earthworm

19. What is the definition of a niche in ecology?

- A) The geographic location of a species
- B) The role and position a species has in its environment
- C) The total number of species in a region
- D) The physical boundary of an ecosystem

20. Which organism occupies the highest trophic level in a food chain?

- A) Apex predator
- B) Primary producer
- C) Herbivore
- D) Decomposer

21. What is the process by which a forest gradually recovers after a wildfire?

- A) Erosion
- B) Succession
- C) Evaporation
- D) Pollination

22. Which ecosystem has the highest rate of primary productivity?

- A) Desert
- B) Tropical rainforest
- C) Open ocean
- D) Tundra

23. What is an organism that eats both plants and animals called?

- A) Herbivore
- B) Carnivore
- C) Omnivore
- D) Producer

24. Which of the following best describes the carbon cycle?

- A) The movement of carbon through the biosphere, atmosphere, and geosphere
- B) The creation of carbon in the soil
- C) The destruction of carbon by sunlight
- D) The storage of carbon in water only

25. What refers to the maximum population size of a species that an environment can sustain indefinitely?

- A) Birth rate
- B) Carrying capacity
- C) Niche limit
- D) Biomass