

TEST DATE:

**ECOLOGY UNIT**  
**Exam Study Guide**  
**Chapters 3, 4, 5 and Section 6.2**  
*(57 vocabulary terms)*

1. What is the branch of biology dealing with interactions between and among organisms and their environment called?
2. What is the combined portions of Earth in which all living things exist called?
3. How do each of the following obtain food?
  - a. Chemoautotrophic Bacteria
  - b. Elmwood Trees
  - c. Mexican Grey Wolves
  - d. Photoautotrophic Bacteria
4. Define each of the following and provide one example for each:
  - a. Carnivore
  - b. Omnivore
  - c. Detritivore
  - d. Herbivore
5. What is recycled from within an energy pyramid?
6. What is the % energy transferred from level to level in an energy pyramid?
7. Where does heat go?
8. What do the following help us to understand about energy and the environment?
  - a. Biomass pyramid
  - b. Numbers pyramid
  - c. Water cycle
  - d. Carbon cycle
  - e. Nitrogen cycle
  - f. Phosphorus cycle
9. What is a niche?
10. Define the C.E.P., aka Gause's Law, and provide ONE example that illustrates this in the wild.
11. Name the three feeding relationships and provide AT LEAST one example for each.
12. How can a predator increase the numbers of certain species in its habitat?
13. How does ecological SUCCESSION occur?

14. What is a biome identified by?
15. For any biome of your choosing, provide 3 biotic factors and 3 abiotic factors.
16. What factors affect *population growth*?
17. What is the significance of an ecosystem's carrying capacity?
18. What is the definition of a limiting nutrient? Please provide one real-life example in detail.
19. Compare and contrast density dependent and density independent limiting factors.
20. Levels of Organization: **individual** makes up species, **species** makes up \_\_\_\_\_, \_\_\_\_\_ makes up community, **community** makes up \_\_\_\_\_ ....
21. VOCABULARY → 57 terms to know.
22. There will be an essay question on how a specific limiting factor affects aquatic ecosystems—HINT: we talked about this in Chapter 3.
23. What is DDT and how has DDT affected the biodiversity of some organisms in the wild?

\* Expect questions about macroinvertebrate surveys and their ecological uses.

\* Bring a calculator on test day!