

AP Bio - Ecology Questions

These questions are based on the major topics discussed in Chapters 52-55 that tend to show up on the AP Biology exam. You need to bring your answers with you on the first day of school. We covered some of these topics in Biology Advanced as a sophomore if you had the class with me. There is a lengthy exam based on these questions on the first day of school. It is open note but take care to understand these questions well as if you have to look everything up during the exam you will have trouble finishing on time.

Ch 52-55

1. Define ecology and explain why it is of utmost importance that we understand it today.
2. Describe 5 general abiotic factors of ecosystems and summarize why they are important.
3. Explain the primary reason why we have seasons on the planet earth, and why they change over the course of the year for most locales.
4. Explain why many deserts or extremely dry areas occur on the leeward sides of mountain ranges. Describe an example from North America.
5. Identify and briefly describe the major zones of an aquatic biome.
6. Identify and briefly describe the major types of aquatic biomes.
7. Describe the 10 major types of terrestrial biomes, their general conditions and where they are found globally.
8. In animals, explain the relationship that exists between body size and generation time.
9. Draw and describe a general population graph as predicted by the logistic model on p. 1184. Explain any changes in the graph over time. (Why does it curve the way it does?)
10. Explain the population cycles as seen in the lynx/snowshoe hare graph on p. 1189. (i.e. what is happening to cause the graph?)
11. Define: community ecology, predation, parasitism, coevolution, competitive exclusion, commensalism, and mutualism.
12. What is a keystone predator and give an example of one and its role/effect on its ecosystem.
13. In your own words, describe the intermediate disturbance hypothesis and what it tries to help us understand.
14. Name and explain what trophic levels are.
15. Describe the difference in the type of food consumed between primary and secondary level consumers.
16. Recreate and explain a typical biomass pyramid (make sure and label each level)
17. Simply draw and describe the basic features of the carbon cycle, the water cycle, and the nitrogen cycle
18. Why do harmful substances such as DDT get magnified as you go farther up the trophic levels?