

Chapter 5 hwmk Questions:

Answer the following on a separate sheet of paper.

1. List the 5 COL's and the four spheres that interact to sustain life on Earth.
2. Compare the flow of matter and energy through the biosphere. Include how the sun, gravity, and nutrient cycles sustain life on Earth.
3. Distinguish between an open and closed system, and use three biogeochemical cycles to illustrate.
4. Distinguish among organism, species, population, community, ecosystem, and ecosphere.
5. Define biological diversity and describe its components.
6. Define biotic components of an ecosystem, use a diagram to differentiate between the four types of consumers, include things like scavenger, detritus feeder, decomposer, photosynthesizers, chemosynthesizers.
7. Define the abiotic component of an ecosystem. List three important physical and three important chemical factors that have a large effect on the ecosystem.
8. Summarize the Law of Tolerance, illustrate it with both a marine and a terrestrial example.
9. Briefly describe three strategies ecologists use to learn about ecosystems. Summarize two controlled field experiments described in this chapter and explain why a combination of research strategies is important.
10. Summarize the two basic principles of ecosystem sustainability, make a list of 5 things that you receive from the ecosystem and tell how much they cost from an environmental perspective.