

## BOTANY: CHAPTER 19- ECOLOGY

Key Vocabulary	Assignments
<p>Abiotic factor Biomes Biotic factor Carbon cycle Carbon sink Carnivores Carrying capacity Climax communities Combustion Condensation Decomposers Deep percolation Denitrification Detritus Ecology epiphytes Evaporation Fossil fuel Herbivores Hydrophytes Net productivity Nitrogen cycle Nitrogen fixation Omnivores Precipitation Primary succession Respiration Root nodule Run off Secondary successors Succession Transpiration Trophic level Water cycle Xerophytes</p>	<p style="text-align: right;">Due:</p> <p><b>1. Read pages 470-473</b></p> <p>a. Why is only 10% of the energy stored in plants transferred to the next trophic level?</p> <p>b. How many more calories are available from 2,850 pounds of grain and soybeans used to feed a cow versus the meat in the cow that ate them?</p> <p>c. Why must there always be more producers than consumers?</p> <p>d. Describe how the carrying capacity of carnivores in an ecosystem is dictated by net productivity.</p> <p style="text-align: right;">Due:</p> <p><b>2. Read pages 474-479</b></p> <p>a. On an unlined piece of paper draw and label the water cycle</p> <p>b. On an unlined piece of paper draw and label the carbon cycle</p> <p>c. On an unlined piece of paper draw and label the nitrogen cycle</p> <p style="text-align: right;">Due:</p> <p><b>3. Answer the following questions</b></p> <p>a. What is the role of microorganisms in the three cycles?</p> <p>b. Energy and nutrients move differently through ecosystems, how and why?</p> <p>c. How would you best protect biodiversity: by conserving species or by conserving ecosystems? Explain.</p> <p>d. consider the areas in which cradles of civilization once flourished, such as the fertile crescent. What role did the tendency of humans to disrupt their ecosystem contribute to the degradation of the land and the downfall of these civilizations?</p>