Always know the vocabulary!

____ 3.6 Explain the difference between the flow of energy and the cycling of matter in an ecosystem. (pg. 388-395 & class notes)

____ 3.7 Define the terms producer, consumer, autotroph, heterotroph, and decomposer, and explain the role of each in an ecosystem. (pg. 382, 385)

____ 3.8 Explain what a trophic level is and the significance of the different trophic levels. (pg. 385-395 & class notes)

- 3.8.A Describe where producers and different types of consumers (including herbivores, carnivores, omnivores, and decomposers) are likely to be found in the different trophic levels. (pg. 385)

- 3.8.B Explain why trophic levels are important for understanding flow of energy and cycling of matter. (pg. 385-395)

____ 3.9 Compare and contrast food chains and food webs, and describe the benefits and disadvantages of each when studying ecosystems. (pg. 384-387)

____ 3.10 Explain the movement of energy through an ecosystem. (pg. 393-395)

- 3.10.A Explain how energy transfers through an ecosystem, including how much energy is lost between trophic levels and the various ways that energy can be “lost.” (pg. 393-394)

- 3.10.B Explain why there are usually limited numbers of quaternary consumers in an ecosystem. (pg. 393-394)

____ 3.11 Describe the movement of atoms and molecules through ecosystems. (pg. 388-391)

- 3.11.A Explain the importance of precipitation, evaporation, transpiration, and condensation in the cycling of water through an ecosystem. (pg. 388-389)

- 3.11.B Explain how the carbon and oxygen cycle are related and the importance of photosynthesis and respiration in cycling matter. (pg. 389-390)

- 3.11.C Describe nitrogen as an element that cycles between different forms, and explain the importance of nitrogen-fixing bacteria in the cycling of nitrogen. (pg. 391)