**AP Biology Pre-Discussion Questions: Interactions 5- Ecosystem Structure**

# Questions to answer:

1. What are the major factors that determine the terrestrial ecosystem that exists in a particular location?
2. What are the major factors that determine the marine ecosystem that exists in a particular location?
3. How does the first law of thermodynamics effect the movement of matter and energy through an ecosystem?
4. Explain what limiting factors are and how they influence the productivity of an ecosystem.
5. Explain the “10% rule”, how it affects the trophic structure of the ecosystem, and why it is a bit of an oversimplification.
6. Explain what all nutrient cycles have in common.

# Things you should make sure you understand:

**(feel free to ask questions about them in class)**

* How all planetary and cosmological systems described in this presentation contribute to climate.
* The major characteristics of all terrestrial and marine ecosystems described in this presentation and rough locations of them on the Earth.
* How to use the 10% rule to estimate productivity, and trophic efficiency of a particular ecosystem.
* The specific processes at work in the water, carbon/oxygen, nitrogen, and phosphorous nutrient cycles.