**Energy Transfer in an Ecosystem – Reading Questions (Ch. 3, pp. 57-65)**

1. Why is it difficult to determine what the boundaries to an ecosystem are? Contrast the examples of a cave versus a forest or desert.
2. How does most energy enter ecosystems? What types of energy conversion occur within ecosystems?
3. How are trophic levels related to flow of energy through an ecosystem? What form is this energy in?
4. What does the productivity of an ecosystem measure?
   1. What is the difference between Gross Primary Productivity and Net Primary Productivity? Which one do you think has more of an influence on an ecosystem?
   2. Approximately what percentage of incoming solar energy do plants capture during photosynthesis? What happens to the rest of it?
5. Why is only a small fraction of energy at each trophic level transferred up to the next trophic level? Where does the rest of the energy go?

**Chapter 3 Vocabulary List**

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| **TERM** | **DESCRIPTION** | **EXAMPLE** |
| Ecosystem |  |  |
| Producers (Autotrophs) |  |  |
| Photosynthesis |  |  |
| Cellular Respiration |  |  |
| Consumers (Heterotrophs) |  |  |
| Primary Consumers |  |  |
| Secondary Consumers |  |  |
| Tertiary Consumers |  |  |
| Trophic Levels |  |  |
| Food Web |  |  |
| Scavengers |  |  |
| Detritovores |  |  |
| Decomposers |  |  |
| Gross Primary Productivity (GPP) |  |  |
| Net Primary Productivity (NPP) |  |  |
| Ecological Efficiency |  |  |
| Energy Pyramid |  |  |