*You may want to watch Bozeman’s* [*Communities*](http://www.bozemanscience.com/046-communities)*,* [*Cooperative interactions*](http://www.bozemanscience.com/049-cooperative-interactions)*,* [*Natural Ecosystem Change*](http://www.bozemanscience.com/ap-es-010-natural-ecosystem-change)*, and* [*Ecosystem Ecology*](http://www.bozemanscience.com/ap-es-007-ecosystem-ecology)*, before reading Chapter 54 (p.1194-1215).*

**Concept 54.1: Community interactions are classified by whether the help, harm, or have no effect on the species involved**

1. Explain how interspecific competition results in the following phenomena. Provide an example for each.
   1. Competitive exclusion
   2. Resource partitioning
   3. Character displacement
2. Contrast an organism’s fundamental niche with its realized niche.

1. Discuss how each of the following defense adaptations help an organism avoid predation. Provide an example for each.
   1. Cryptic coloration
   2. Aposematic coloration
   3. Batesian mimicry
   4. Mullerian mimicry
2. Describe and give an example of two ways plants defend themselves against herbivory.
3. Differentiate between and give an example of an ectoparasite and an endparasite.
   1. How do parasites impact the health of their host organism(s)? Give an example.

1. Contrast mutualism with commensalism. Give an example for each.

**Concept 54.2: Diversity and trophic structure characterize biological communities**

1. Explain why community 1 in Figure 54.10 (p.1201) is more diverse than community 2.
2. Describe three benefits that communities with high levels of diversity experience.
3. Describe the impact of each of the following on their community, give an example, and discuss how the community would be effected if the species were to be removed.
   1. Dominant species
   2. Keystone species
   3. Ecosystem engineers

**Concept 54.3: Disturbance influences species diversity and composition**

1. Differentiate between primary and secondary succession.
2. Explain how each step of succession in Glacier Bay, Alaska prepares the environment for the next stage.

**Concept 54.4: Biogeographic factors affect community diversity**

1. Describe the impact of latitude and total area of a community diversity.