**AP Biology Ecology Review**

Chapter 51: Behavior

1. What is the difference between innate and learned behaviors? Be able to give examples of each.

2. What are fixed action patterns?

3. What are sign stimuli?

4. What are pheromones?

5. What is imprinting?

6. What is the sensitive period when relating to imprinting?

7. What is kinesis? Be able to give an example.

8. What is taxis? Be able to give an example.

9. What is habituation? Be able to give an example.

10. What is the difference between classical and operant conditioning?

Chapter 52: Ecology and the Biosphere

1. Be able to list the levels of organization from the individual up to the biosphere in order of inclusiveness.

2. Understand that evolution and ecology are directly related. Be able to give an example.

3. Be able to describe the following biomes and the properties that define the biomes:

a. Deserts

b. Estuaries

c. Savannas

d. Temperate forests

e. Tundra

4. Be able to explain the concept of water turnover in lakes during the spring and fall.

5. What causes the earth’s seasons?

6. What is the difference between micro and macro climate?

7. Be able to explain the properties of a photic zone.

8. What climatic factors influence biome distribution across the world?

Chapter 53: Population ecology

1. What is the definition of a population?

2. What is density? What factors affect the density of a population?

3. What is the difference between immigration and emigration?

4. What is dispersion? What are the three types of dispersion patterns in nature? Which is the most common?

5. What is demography?

6. What are r-selected and K-selected characteristics of a population?

7. What is carrying capacity?

8. What are factors that can contribute to density-dependent regulation of populations?

9. What are examples of density-independent regulation of populations?

Chapter 54: Community ecology

1. What is an ecological community?

2. What is a niche? What is a fundamental niche? What is a realized niche?

3. What is competitive exclusion?

4. What is cryptic colorations? Be able to give an example.

5. What is aposematic coloration? Be able to give an example.

6. What is symbiosis? Be able to list the three forms of symbiosis and give examples of each.

7. What is resource partitioning? Be able to give an example.

8. What are the two forms of mimicry and how do they differ? Be able to give examples of each.

9. What is a keystone species?

Chapter 55-56: Ecosystems

1. Be able to explain trophic levels and the energy pyramid of an ecosystem.

2. What is the 10% rule? How does it apply to ecosystems?

3. What is the difference between a food web and a food chain? Be able to interpret both.

4. How are matter and energy used and moved through an ecosystem? (remember the difference between cycling and flow).

5. Know what a producer, consumer, herbivore, carnivore, autotrophs, heterotrophs, primary consumer, secondary consumer, and tertiary consumer are.

6. What is the role of decomposers and detrivores in an ecosystem?

7. What is the role of photosynthetic organisms in an ecosystem? (think organic and inorganic here)

8. How does biomass relate to an energy pyramid?

9. What form of nitrogen is available to plants in the soil?

10. What is biological magnification? Be able to give a general example.