Chapter 2: Environmental Systems

CPQ 2-1

1. What is an environmental system? Name some examples.
2. How do systems vary in scale, and how does a large system include a smaller system?
3. What are the largest systems in the Mono Lake ecosystem? What are some examples of smaller systems within that system?

CPQ 2-2

1. What are the three types of chemical bonds?
2. What are the unique properties of water? In what ways do those properties make life possible on Earth?
3. What are the four types of biological molecules, and how do they differ from one another?

CPQ 2-3

1. What is the difference between power and energy? Why is it important to know the difference?
2. How do potential energy and kinetic energy differ? What is chemical energy?
3. What are the first and second laws of thermodynamics?

CPQ 2-4

1. Provide an example of how organisms convert energy from one form to another.
2. How does energy determine the suitability of an environment for growing food?

CPQ 2-5

1. What is an open system? What is a closed system?
2. Why is it important to look at a whole system rather than only at its parts?
3. What is steady state? What are feedback loops? Why are they important?

CPQ 2-6

1. Give some examples of environmental conditions that might vary among natural systems.
2. Why is it important to study variation in natural systems over space and time?