Chapter 6 Keys to Success

If you can demonstrate understanding regarding the following questions, you will be successful with this chapter:

How do kinetic and potential energy show up in an organism?

How do the first two laws of thermodynamics apply to biological systems?

How does the concept of entropy work regarding concentration gradients?

What is metabolism?

What goes into and what comes out of a chemical reaction?

What types of reactions absorb energy? What types release energy?

What is the purpose of ATP? How does the structure of ATP aid this purpose?

How can ATP be used to power virtually all body processes, yet exist in such tiny amounts?

What is a metabolic pathway?

What are enzymes? How do they physically work?

Regarding chemical reactions, what is activation energy? What influence do enzymes have over activation energy?

What specific conditions generally enhance enzyme activity? Diminish enzyme activity?

What types of molecules act as common coenzymes?

How do the two main types of enzyme inhibition work?

What does redox mean? Why are redox reactions always paired?

What are the most basic chemical equations for photosynthesis and cellular respiration?