Photosynthesis & Cell Respiration
Unit Objectives

1. *Cell Metabolism*

A. I can connect anabolism, catabolism, and enzymes to the concept of cell metabolism.
B. I can list the parts of an ATP molecule and draw them properly connected.
C. I can demonstrate how an ATP molecule is made and broken down for energy.
D. I can create an organizer that shows how anabolism, catabolism, cell metabolism, ATP, photosynthesis, and cell respiration are all connected.

Vocabulary: anabolism, catabolism, metabolism, ADP, ATP, Pi, photosynthesis, cell respiration

Illinois Assessment Framework: 12.11.09, 12.11.10

2. *Anabolism—Photosynthesis*

A. I can state the overall goal of photosynthesis, the organelle in which it occurs, and its two main stages.
B. I can list the beginning and ending molecules for each of the two stages of photosynthesis.
C. I can create an analogy for what occurs in each stage of photosynthesis.

Illinois Assessment Framework: 12.11.07

3. *Catabolism—Cell Respiration*

A. I can state the overall goal of cell respiration, the organelle in which it occurs, and its three main stages.
B. I can list the beginning and ending molecules for each of the three stages of cell respiration.
C. I can create an analogy for what occurs in each stage of cell respiration.

Illinois Assessment Framework: 12.11.08

4. *Summary*

A. I can list similarities and differences between cell respiration and photosynthesis.
B. I can design an experiment that answers a scientific question about cell respiration and photosynthesis.