Chapter 8 and 9 goal statements

I can explain how cells transform energy (ultimately obtained from the sun) from one form to another through the processes of photosynthesis and respiration. Identify the reactants and products in the general reaction of photosynthesis.

I can compare and contrast the transformations of matter and energy during photosynthesis and respiration.

I can describe how energy is transferred and transformed from the sun to energy-rich molecules during photosynthesis.

I can describe how organisms acquire energy directly or indirectly from sunlight.

I can illustrate and describe the energy conversions that occur during photosynthesis and respiration.

(Repeat from Unit 3)

I can recognize the equations for photosynthesis and respiration and identify the reactants and products for both. (Repeat from Unit 3)

I can explain how living organisms gain and use mass through the processes of photosynthesis and respiration.

I can write the chemical equation for photosynthesis and cellular respiration and explain in words what they mean.

I can identify how energy is stored in an ecosystem.

I can explain how cellular respiration is important for the production of ATP (build on aerobic vs. anaerobic).

I can describe how individual cells break down energy-rich molecules to provide energy for cell functions.

I can explain the interrelated nature of photosynthesis and cellular respiration in terms of ATP

synthesis and degradation.

I can relate plant structures and functions to the process of photosynthesis and respiration.

I can illustrate and describe the energy conversions that occur during photosynthesis and

respiration. (Also repeated in Unit 8—Ecology)