Agenda for Friday, December 4th 2015

Agenda	Homework
1. SDRO Life Cycle Project	- Decide what to work on over the weekend regarding photosynthesis and cellular respiration.

Which NGSS practices, DCIs, and CCs are we meeting?	
Science and Engineering Practices • Conduct explanations supported by multiple sources of evidence consistent with scientific knowledge, principles, and theories. • Use an oral and written argument supported by evidence to support or refute an explanation or a model for a phenomenon • Develop and use models to describe systems. • Obtain, evaluate, and communicate information. **Crosscutting Concepts** • Cause and effect • Structure and Function • Energy and Matter • Systems and Systems Models	**Disciplinary Core Ideas** • LS1.B: All organisms grow, develop, and reproduce. • LS1.C: All organisms obtain and use the matter and energy they need to live and grow. • LS1.D: Sense receptors respond to different inputs. • LS2.A: Organisms are dependent on their environmental interactions both with other living things and nonliving factors. • LS2.B: Matter and Energy move through an ecosystem. • PS3.D: Chemical reactions in plants produce complex food molecules; plants and animals release energy stored in food.

Why are we doing this?
We have spent considerable time studying our Fast Plants and cabbage white butterflies. Today we continue a 2-week long project closely examining three characteristics of these organisms: how they have grown and developed, how they have obtained and used energy, and how they have reproduced. This project will show us that these organisms, like all others, have the same characteristics; albeit, they meet these characteristics in different ways.

A Few Answers to Questions

- **Can I use diagrams from outside sources?** No. Use only diagrams from our resources. I have additional resources on the front table for you to use. You may create your own diagrams, too.

Today's General Plan

Today your goal is to research cellular respiration and understand its role in plants and animals (and, in a broader context, life). You will read an annotate a few pages from a textbook to learn about cellular respiration and answer a few questions to check your understanding. Once you finish reading, you will decide how to incorporate this information into your presentation: what graphics will you use and what will you say?

Today's Procedure

Part 1: Learning About Cellular Respiration

1. Download the Cells and Energy reading on the SDRO project page.
2. Read (and annotate) through the information on photosynthesis (pp. 50-52).
3. Questions you should be able to answer about cellular respiration:

   3.1. What is cellular respiration?

   3.2. Is cellular respiration exclusive to plants or animals?

   3.3. When is energy released during cellular respiration?

   3.4. Summarize the process of cellular respiration. (What is needed for cellular respiration to occur? What are the products, or results, of cellular respiration?)

   3.5. How are cellular respiration and photosynthesis connected to each other?

4. If you need more resources or if you are confused, please see Mr. Ower. He has additional readings you can review and I can help you answer questions.

Part 2: Incorporating Cellular Respiration into your Project

1. Work with your partner(s) to decide which graphics you will use in your presentation. The graphics you use from your presentation may come from the reading resource, the SDRO textbook, or you can make your own. If you use anything other than your own graphics, be sure to give credit to the original author.
2. Prepare a script that describes what happens in cellular respiration and explains the role it has for organisms. Remember to connect this back to the guiding question of how organisms obtain and use energy.