



Mr. Silluzio
Biology Lesson Plan
Date:

Topic: Photosynthesis and Cellular Respiration: The light reactions and chemiosmosis

Summary: Using whole class instruction and short video, this lesson focuses specifically on the light reaction. After a brief review of the properties of phospholipid membrane, students participate play an active role in passing a model electron back and forth as a way of understanding oxidation reduction reactions. The light reaction is then explained from the absorption of light to chemiosmosis and reduction of the “electron acceptor.”

Students then work independently completing vocabulary and reviewing procedure for an upcoming lab (final ~ 20 mins)

Goals/Objectives:

- **Be able to define and explain biochemical cycles, specifically, how products and reactants cycle through the light reaction and Calvin cycle.**
- **Understand the anatomy of the thylakoid membrane.**
- **Begin to make the connections between structure and function.**

Corresponding Learning Standards:

Time Required: 1 80 minute period

Prerequisite Knowledge: Complete understanding of the phospholipid membrane and the role of membrane proteins – in order to understand the light reaction, which occurs on the thylakoid phospholipid bilayer.

Homework: Vocabulary relevant to photosynthesis in plants

Chapter Guided Readings

Accommodations: All notes, assignments and due dates are available online.