

Photosynthesis & Cellular Respiration

Philipsburg-Osceola Area Senior High School
Mentor: Tracy Vipond

Food Energy Lab

Teacher: Michael Peterson
Applied Biology (Grade 10)

Lesson Objectives

1. Students will recognize the term calorie with respect to food energy.
2. Students will explore the various ways to research nutrition information.
3. Students will graph and interpret data pertaining to the energy content of various foods.

PA Standards Addressed

S: 3.3.10A, B.

Materials

- Textbook
- Pen/Pencil
- Notebook
- Lesson Handouts
- Computer/Microsoft PowerPoint
- Projector/SMART Board

Procedure

1. The lesson will begin with a review of what has been accomplished in this laboratory activity up to this point. Students will be asked to share their findings in efforts to allude to the questions that they will be asked to complete on their post-lab worksheet (*10 minutes*).
2. Students will continue to work in pairs and answer the post-lab questions on their laboratory handouts. Students will use their results to develop scientific solutions to the proposed questions (*25 minutes*).
3. Students will return to their seats and a discussion will be lead by the instructor, where students will be asked to answer the questions from the laboratory activity. Any misconceptions will be cleared up by the instructor (*10 minutes*).
4. **Closure:** Students will be reminded that the next class will consist of a review game in preparation for their upcoming exam on photosynthesis and cellular respiration (*1 minute*).

Evaluation

- Teacher observation of student participation (classroom discussion/questioning).
- Student performance on assessment (classroom lab activity).