

Cell Energy!

Due Date:



Enduring Understanding:

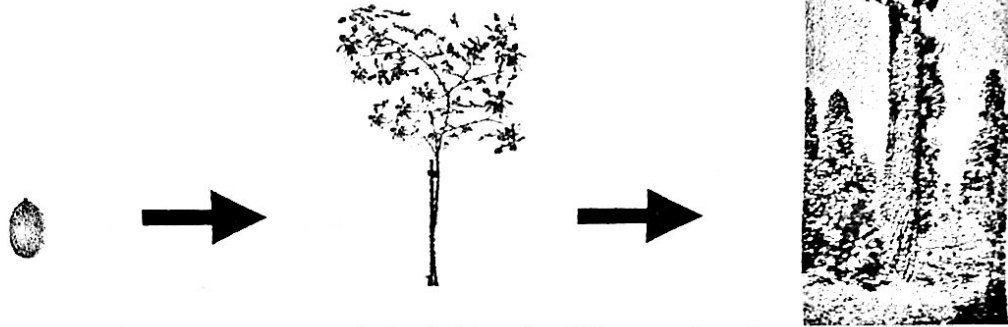
Cells use distinct and separate structures to perform chemical processes essential towards maintaining homeostasis.

Essential Question:

How do cells transform, store, and use energy to maintain the survival of organisms?

Assessing Prior Knowledge:

From Seed to Tree?



Answer the questions in your own words individually. Afterwards, discuss your answers with members at your tables.

1. Estimate how much you think a seed weighs.
2. Estimate how much you think a full-sized tree weighs.
3. Estimate the difference in mass between a seed and a tree.
4. Where do you think the mass of the tree comes from?

Photosynthesis & Cellular Respiration Webquest

Procedure:

Using your computer, visit some websites to learn more about how cells make and use energy. Be sure to answer the following questions as you explore these concepts. **Please write in complete sentences.**

Resources: You can use other sites these are just suggestions

<http://tinyurl.com/73q835m>

<http://tinyurl.com/bpi6noj>

<http://tinyurl.com/7zrsq9p>

<http://tinyurl.com/y9uzji>

A. How do plants and animals obtain energy?

B. In what organelle does the process of Photosynthesis occur?

C. In what organelle does the process of Respiration occur?

D. In what type of cells do Photosynthesis and Respiration take place? For each process describe if it is: Plant, Animal, Both, Neither

E. Why are animal cells not capable of carrying out Photosynthesis?

Photosynthesis & Cellular Respiration Webquest

F. Photosynthesis and Respiration can be summarized into equations. Write the equations and how do they relate to one another.

G. Analyze why leaves change color in autumn.

H. Identify the parts of the plant involved in Photosynthesis.

I. Describe how glucose is broken down during Respiration.

J. Name 3 interesting facts you learned from the websites:

Concept Assessment:

1. Your teacher will give you a stack of words.
2. Lay all the words out on your table and sort them out.
3. Talk with a partner at your table and try to look for patterns.
4. Look for general and specific words.
5. Finally, once you think you have the words arranged in a way that sums up what you understand so far about cell energy, record the way you arranged the words on the next page.
6. Give the word cards back to your teacher at the end of the class.