

Name: _____

Date: _____ Period: _____

ATP, Photosynthesis and Cellular Respiration Web quest

Objective: In this web quest investigation, you will use the internet to research topics related to ATP, Photosynthesis and Cellular Respiration. Use the web links provided to answer the following questions. Happy searching!

What is Photosynthesis?

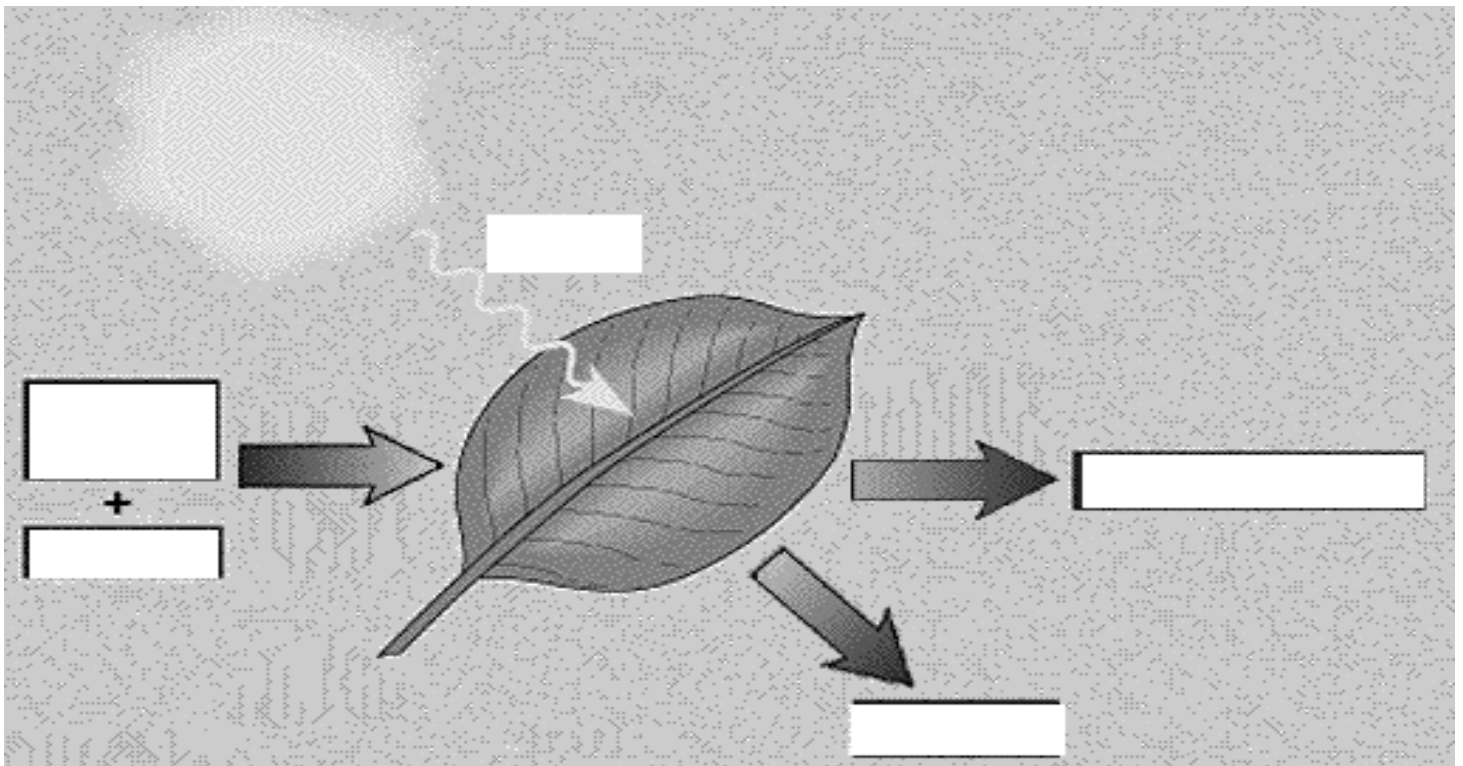
<http://www.biology.ualberta.ca/facilities/multimedia/uploads/alberta/Photo.html>

(Click on photosynthesis)

1. Where on the plant does photosynthesis take place? _____
2. The energy from the sun enters into what organelle in the plant? _____
3. How does the plant get water for photosynthesis? _____
4. What gas enters the plant for photosynthesis? _____
5. Where does it enter the plant? _____
6. What gas exits the plant during photosynthesis? _____
7. Where does it exit the plant? _____
8. What is the overall equation for photosynthesis? _____

Overview of Photosynthesis Labeling. Label the following picture below.

http://www.phschool.com/science/biology_place/biocoach/photosynth/overview.html



What is ATP? <http://www.biologyinmotion.com/atp/index.html>

1. How does energy get converted from food molecules to muscles? _____
2. According to the webpage, the analogy for ATP is that ATP works like a rechargeable _____.
3. Click on the arrow to the next page. Pull apart the ice cream. What happens when food is broken down in the body? _____

The Mitochondria

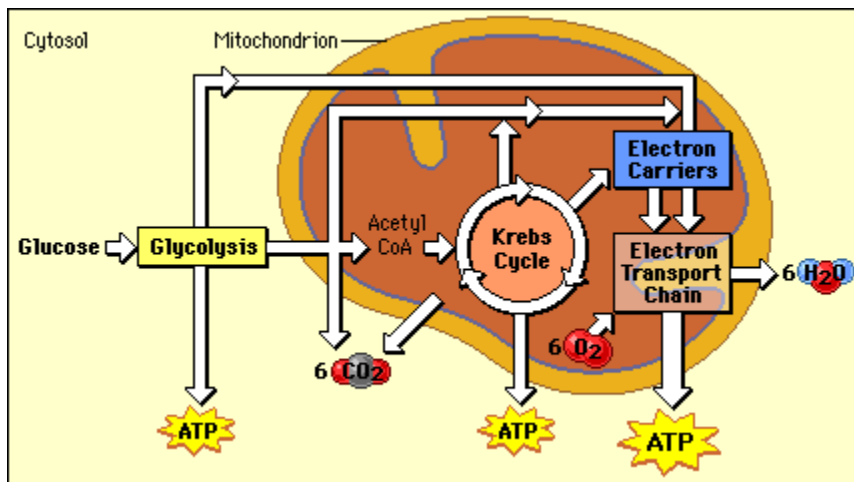
http://www.biology4kids.com/files/cell_mito.html

Draw and label the three main components of the mitochondria. Identify what each of the three components does.

What is Cellular Respiration?

http://www.phschool.com/science/biology_place/biocoach/cellresp/intro.html

Click on NEXT CONCEPT



What are the 3 steps of cellular respiration and where does each occur?

1. _____ - _____
2. _____ - _____
3. _____ - _____

How Do Photosynthesis and Cellular Respiration Connect?

<http://www.ck12.org/book/CK-12-Life-Science-Concepts/r14/section/2.14/>

Write the equation for photosynthesis: _____

Write the equation for cellular respiration: _____

Scroll down and look at the Figure. Sketch the figure below (chloroplast and mitochondria)

The _____ of one process are the _____ of the other.

Wrap-Up

For the following statements write P if it describes photosynthesis, or write R if it describes respiration.

- 1) Occurs in the chloroplast _____
- 2) Occurs in the mitochondria _____
- 3) Uses Oxygen _____
- 4) Produces Oxygen _____
- 5) Uses Water _____
- 6) Produces water _____
- 7) Relies directly on the sun _____
- 8) Producers are dependent on this process to produce food _____
- 9) Only plants do this process _____
- 10) Plant and Animals do this process _____
- 11) The goal of this process is to get ATP _____
- 12) The goal of this process is to make glucose _____