## Photosynthesis Website Tour

Start by typing in http://smithclassroom.tripod.com Select Biology and the Agenda/Homework Go to site #1 1. Photosynthesis is the process
use the energy
to produce sugar, which
converts into the "fuel" used by all living things.
2. The raw materials of photosynthesis,,
enter the cells of the leaf, and the products of photosynthesis,
, leave the leaf.
3. Water enters the root and is transported up to the leaves through specialized plant cells
known as
4. How does $CO_2$ get into the leaf?

Sketch a picture of that leaf structure

## Scroll down to Stages of Photosynthesis

5. Name the two main stages of photosynthesis.

Explain how this compares to the THREE stages described in your book.

6. Sketch the flow chart illustrated on the site outlining the steps of photosynthesis.

Go to Site #2

7. Explain why plants look green.

8. How many types of chlorophyll are there?

9. Describe the difference between light and dark reactions.

Go to Site #3

Scroll down to the section on "At the Molecular Level"

 10. Photosynthesis begins when \_\_\_\_\_\_\_\_\_\_, releasing two \_\_\_\_\_\_\_\_, which are transferred along an \_\_\_\_\_\_\_\_, similar to that involved in respiration.

11. Complete the chemical formula: NADP<sup>+</sup> +  $\rightarrow$   $\rightarrow$ 

12. NADPH is a reducing agent. What is a reducing agent?

13. Where does the oxygen  $(O_2)$ , that plants release, come from?

14. ATP and NADPH produced through photosynthesis drive the Calvin Cycle in plants. What is the Calvin Cycle? 15. Write the total sum of the reactions in the Calvin Cycle below:

Go to Site #4

16. Watch the animation and explain why the Calvin Cycle must make several turns.

## In Summary

Using your understanding OR looking up the information using Google or another search engine, answer the following questions:

- What is the sun's role in photosynthesis
- How do plants absorb carbon dioxide?
- What is chlorophyll, and what does it do?
- How is glucose created?

• Why do plants release oxygen?