Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block \_\_\_\_ # \_\_\_\_\_

**Photosynthesis Worksheet- #2**



You must know this diagram!

**Using the PPt and the Chloroplast diagram, answer these general overall questions regarding photosynthesis**:

1. What is the overall reaction for photosynthesis?
2. How does this compare to the overall reaction for cellular respiration? EXPLAIN.
3. Where does the energy for photosynthesis come from?
4. What plant pigments are involved in photosynthesis?
5. Explain why plants appears green to us, in terms of the different wavelengths of light (BE SPECIFIC)
6. Which colors of light are most effective for photosynthesis?
7. What are the two stages of photosynthesis? Which one does not require light?
8. In which part of the chloroplast does each stage occur?
9. What happens to water molecules in the light reactions?
10. What photosynthesis waste product is formed in the light reaction and released?
11. What two products of the light reactions are taken to the Calvin cycle to produce glucose?
12. Besides the products from the light reactions, what other substance diffuses into the stroma that is critical for the Calvin cycle?
13. Explain the role of NADPH in the light reactions and Calvin Cycle.
14. What happens to carbon dioxide molecules in the Calvin cycle reactions?
15. How can cells store sugar that is produced in photosynthesis?
16. Label the diagram below to summarize the 2 stages of photosynthesis. Use the word bank to help you. Then check your answers using the diagram on the 1st page.



Word list:

thylakoids Calvin cycle CO2  NADP+

granum light NADPH O2

stroma H2O ATP ADP + P

light reactions sugar