

Photosynthesis: How Do Plants Make Food?

Pg 83-87

1. Photosynthesis is the process by which plants use the _____ to make _____ from _____ and _____.
2. How would a heterotrophic organism obtain food through photosynthesis?
3. Give an example of what you explained in #2.
4. _____ is the process that converts energy of the sun, or _____, into carbohydrates, a type of _____.
5. What are the reactants of photosynthesis?
6. What are the products?
7. **List and explain** 3 types of organisms that can photosynthesize.
8. _____ is a green pigment in leaves that helps to capture solar energy.
9. What are stomata?
10. _____ is the organelle in which photosynthesis takes place.
11. Describe the outer membrane of the chloroplast.
12. Describe the inner membrane of the chloroplast.
13. Draw a chloroplast and **label the thylakoid, inner membrane, outer membrane, and stroma.**

14. The overall chemical reaction for photosynthesis is?

15. _____ cycles through the processes of photosynthesis and cellular respiration.

16. The _____ process of photosynthesis does _____ happen in one step.

17. The _____ reactions are also called _____ - _____ reactions because they only occur during _____ . During these reactions _____ splits water to release _____ and capture its energy.

18. Draw the chloroplast in the middle of page 85 and label the light dependent and independent reactions happening.

19. The _____ Cycle is the light-independent reactions. During these reactions the _____ is converted into glucose which is a type of _____.

20. List the steps to the light reactions

Light reaction 1:

Light reaction 2:

Light reaction 3:

Light reaction 4:

Light reaction 5:

Light reaction 6:

21. **List the steps** to the Calvin Cycle