

PODCAST - Bozeman Science: Photosynthesis
(<http://www.bozemanscience.com/photosynthesis>)

OVERVIEW

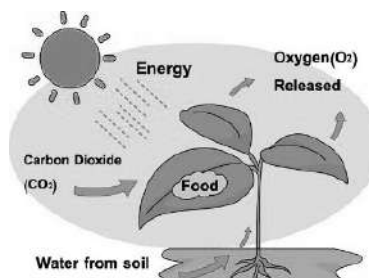
1) What are two things that photosynthesis gives us that we need?

a) _____

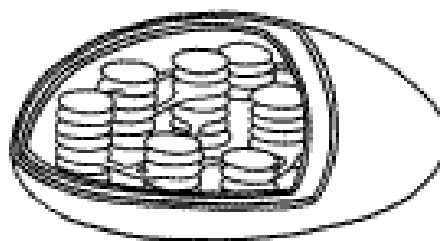
b) _____

2) Aside from plants, what other organisms can do photosynthesis? _____

3) In eukaryotes, in which organelles does photosynthesis occur? _____



4) Use the diagram to the right:



a) **Circle and place a (T)** where a thylakoid is.

b) **Shade in** the area where the stroma is.

5) **TRUE** or **FALSE**. (circle one) There is only 1 pigment found in a leaf.

6) Which color is the "least favorite" of a plant? _____ Why? _____

7) Fill in the missing "ingredients" to the photosynthesis equation below:



8) What are the 2 steps to photosynthesis?

a) _____ (occurs in thylakoid)

b) _____ (occurs in stroma)

LIGHT REACTIONS (Light-Dependent Reactions)

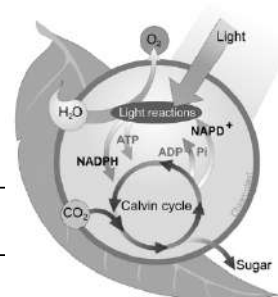
9) What are the 2 things that are coming into the thylakoid to **start off the light reactions**?

a) _____

b) _____

10) What is the light used for in this step? _____

11) The water is split breaking into _____ and _____



12) What is created as the hydrogen protons go through the **ATP synthase**? _____

13) Where do the NADPH and the ATP produced in the light reactions go? _____

CALVIN CYCLE (Light-Independent Reactions)

14) How does **carbon dioxide** enter the leaf? _____

15) What can G3P be assembled into? _____

PHOTORESPIRATION & Plant Evolutionary Adaptations

16) When does **photorespiration** occur? _____

17) What are almost all plants called? _____

18) a) When would a plant not have enough carbon dioxide? _____

b) When do the stomata close? _____

19) What is an example of a **CAM** plant? _____

20) When do CAM plants open up their stomata? _____

21) What is an example of **C4** plant? _____

