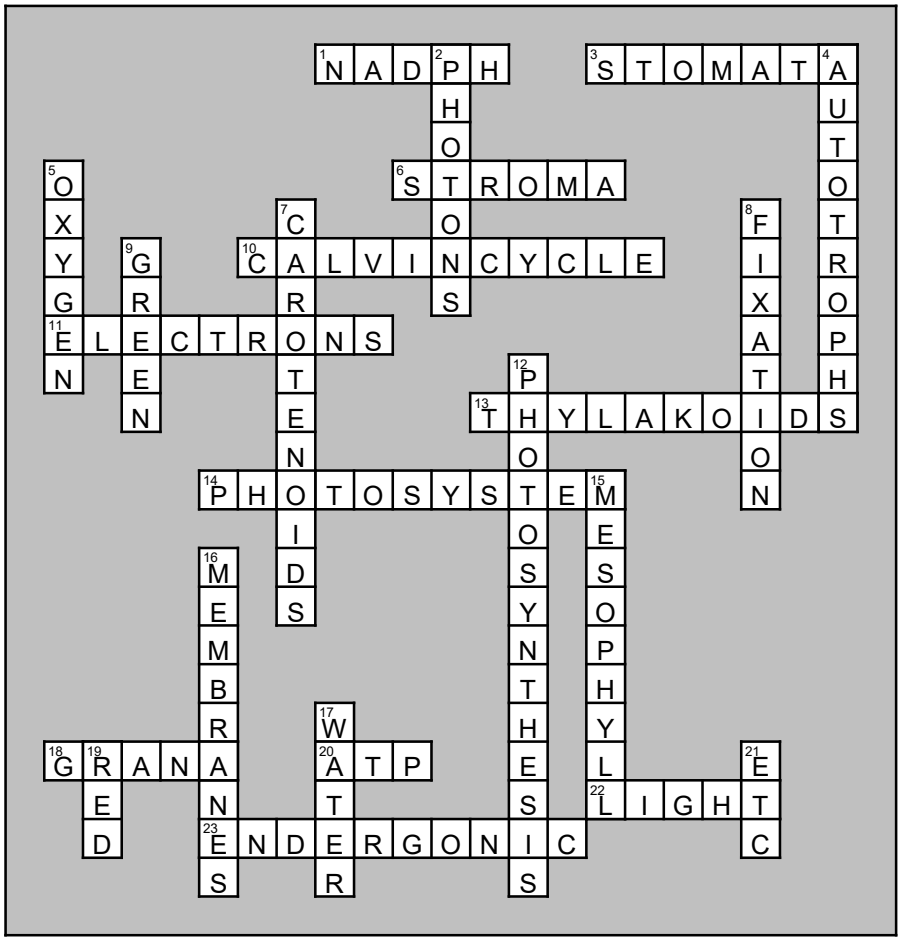
Crossword



Across

1. Light reactions produce energized molecules of ATP and ___.
3. Tiny pores in the leaf that allow carbon dioxide to enter and oxygen to leave.
6. The liquid area of the thylakoid that receives the H+ ions from photosystem II in order to produce ATP.
10. Dark reaction, carbon fixation, light independent reaction.
11. Photosynthesis, like cellular respiration is a REDOX process in which __ are transferred between reactants and products. Carbon dioxide is reduced and water is oxidized.
13. Membranous sacs in the stroma of chloroplasts; concentrated in stacks called grana.
14. A collection of pigment molecules (e.g. chlorophyll) that serve as the light collecting unit.
18. Location where ATP and NADPH are produced within the chloroplasts.
20. The electron transport chain (ETC) produces a gradient of H+ ions and high energy electrons en route to production of this molecule that drives the Calvin cycle.
22. Reactions that occur in the thylakoid membranes of the chloroplasts. Water is split to produce electrons and oxygen.
23. Photosynthesis requires energy to produce food for organisms.

Down

2. A fixed quantity of light energy that drives the light reaction of Photosynthesis.
4. Organisms that use light energy to produce their organic molecules that sustain life.
5. Actually a "waste" product of photosystem II from the splitting of water to yield high energy electrons.
7. Absorb green light and reflect red, orange, and yellow light, giving leaves their "fall" colors.
8. Carbon __ combines carbon from carbon dioxide with a 5-carbon sugar to form glucose ultimately.
9. Chloroplasts reflect __ light and absorb mainly violet-blue and red light.
12. Converting light energy to chemical energy. In particular carbon dioxide to glucose.
15. Location of chloroplasts in the green tissue of a leaf.
16. Chlorophyll molecules are embedded in the thylakoid __ where light is captured and converted to chemical energy.
17. Along with carbon dioxide is needed to produce glucose. It splits to form oxygen and high energy electrons with H+ ions.
19. Chlorophyll mainly absorbs violet-blue and __ light to drive Photosynthesis. Green is reflected.
21. This chain (abbreviated) transports high energy electrons from photosystem II to photosystem I.