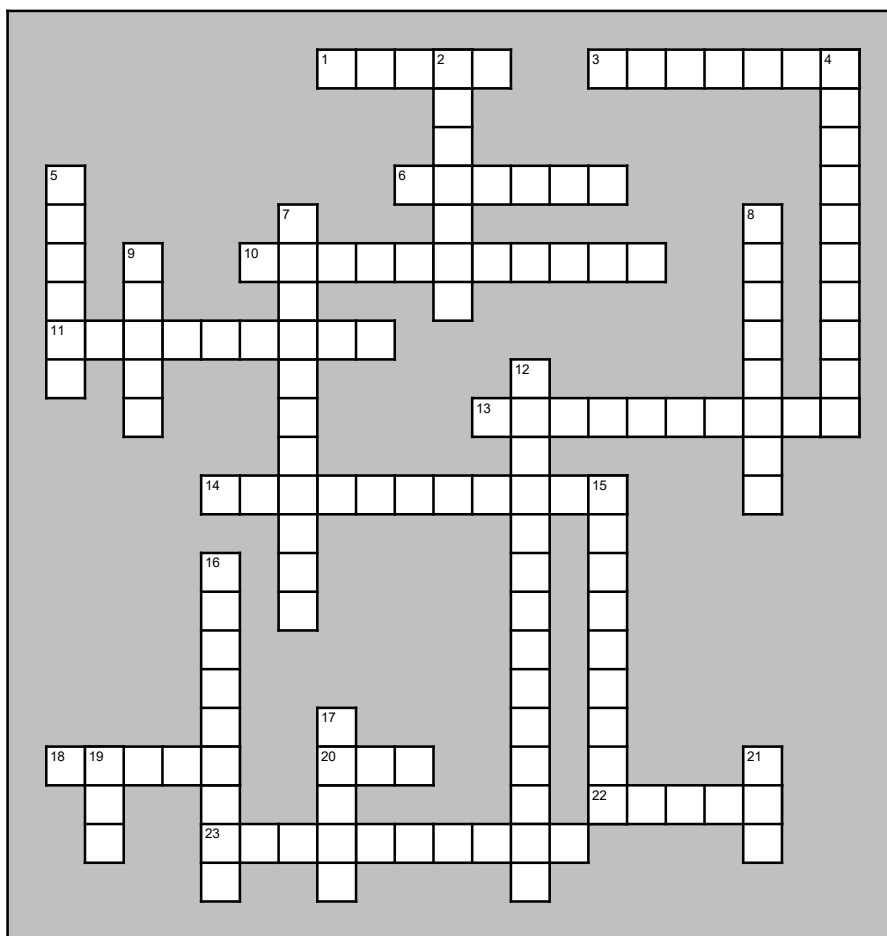


# Crossword



## Across

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

## Down

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