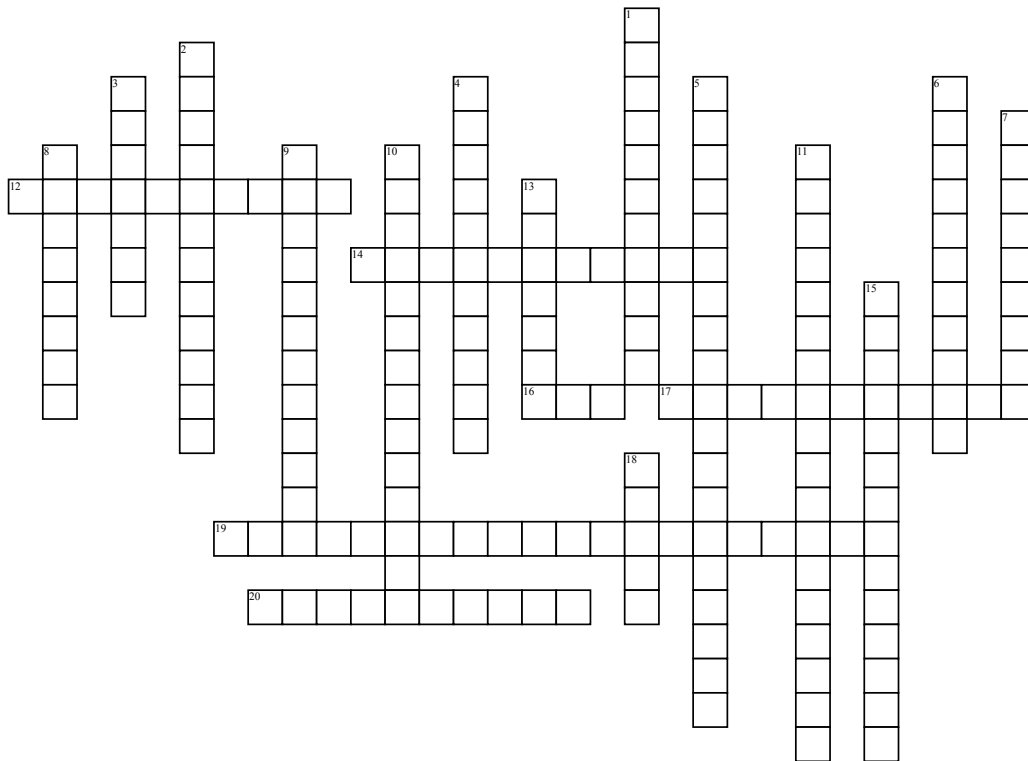


# Photosynthesis and respiration



## Across

12. Breaks down glucose into 2 molecules of pyruvate

14. primary light absorbing pigment in autotrophs

16. Short for Adenosine Triphosphate. It is the energy that is released when the mitochondrion breaks down the sugars you have eaten

17. An organism that eats plants or other animals for food

19. Cellular Respiration that takes place when there is no oxygen

20. Produces 36 ATP energy units for each sugar molecule broken up

## Down

1. The second of two major stages in Photosynthesis

2. This type of organism exchanges oxygen and carbon dioxide directly with the environment through their cell membranes

3. Sugars produced by photosynthesis

4. An organelle inside a plant cell only where photosynthesis takes place

5. The process that takes place inside all eukaryotic cells that breaks down sugars to produce energy in the form of ATP

6. the reversal of the chemical reactions that take place in photosynthesis

7. organism that can capture energy from sunlight or chemicals and use it to produce its own food from inorganic compounds; also called a producer

8. The first step of cellular respiration where glucose is broken in half and two ATP energy units are released

9. An organelle inside an animal and plant cell where cellular respiration takes place

10. The steps in photosynthesis that occur on the thylakoid membranes of the chloroplast and that convert solar energy to the chemical energy of ATP and NADPH, evolving oxygen in the process

11. Cellular respiration that takes place when there is oxygen

13. The small openings on the undersides of most leaves through which oxygen and carbon dioxide can move

15. The process by which plants use carbon dioxide plus energy from the sun to create sugars and oxygen

18. Carries the high energy electrons to reactions in the cell

## Word Bank

Heterotroph

Aerobic Respiration

Autotroph

NAPDH

Chloroplast

Glucose

Anaerobic Respiration

stomata

Respiration

Light Reactions

Glycolysis

Photosynthesis

CALVIN CYCLE

Glycolysis

chlorophyll

ATP

krebscycle

Single-celled

Mitochondria

Cellular Respiration