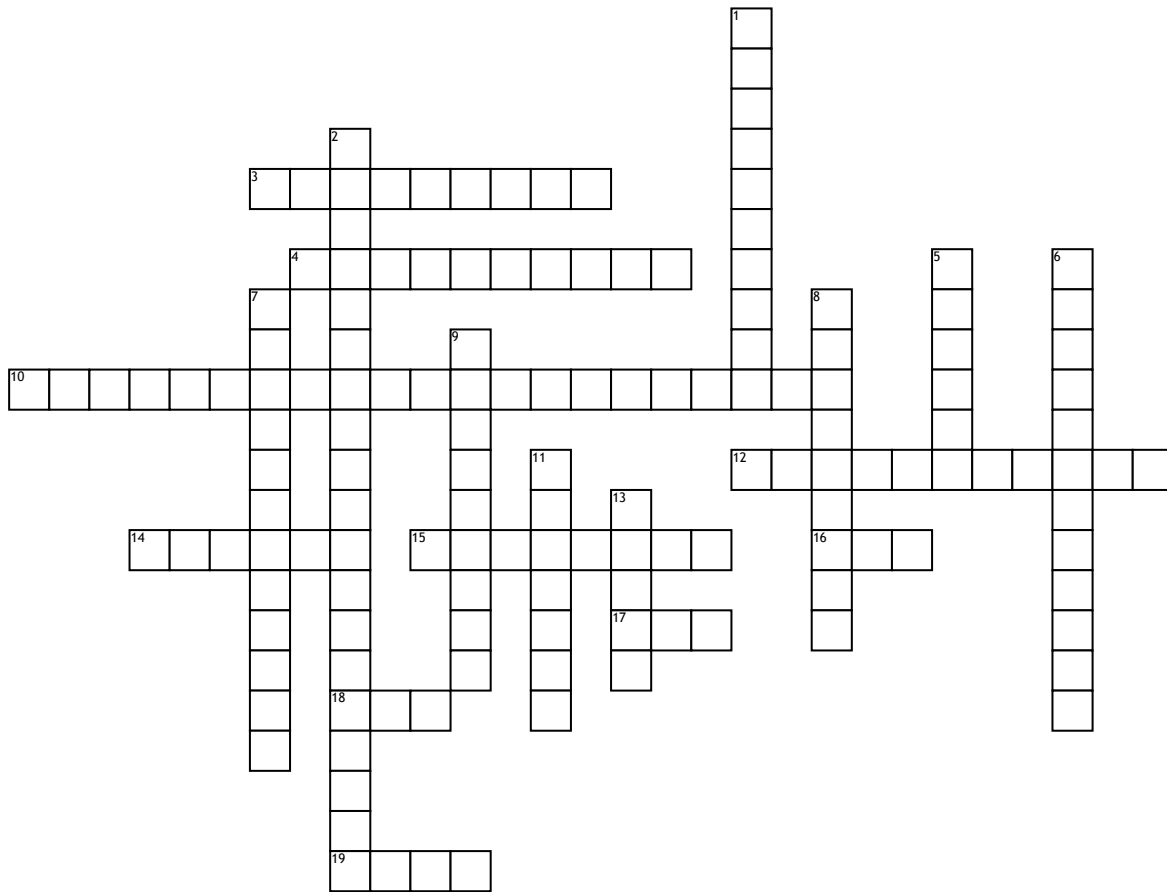


# cellular respiration crossword puzzle



## Across

3. A compound that functions as a coenzyme in many biological acetylation reactions and is formed as an intermediate in the oxidation of carbohydrates, fats, and proteins.
4. first stage of cellular respiration, it occurs in cytoplasm of the cell, splitting of a sugar
10. process of particles, which are sometimes called solutes, moving through a solution or gas from an area of higher number of particles to an area of lower number of particles.
12. is an important enzyme that provides energy for the cell to use through the synthesis of adenosine triphosphate
14. pH is a measure of the hydrogen ion concentration of a solution. Solutions with a high concentration of hydrogen ions have a low pH and solutions with a low concentrations of H<sup>+</sup> ions have a high pH.
15. end product of glycolysis, which is converted into acetyl coA that enters the Krebs cycle when there is sufficient oxygen available

16. composed of adenosine, ribose, and three phosphate

17. consisting of two hydrogen atoms and one oxygen.

18. An organic compound that is composed of adenosine and two phosphate groups

19. two nucleotides joined through their phosphate groups, with one nucleotide containing an adenine base and the other containing nicotinamide

## Down

1. A series of enzymatic reactions in aerobic organisms involving oxidative metabolism of acetyl units and producing high-energy phosphate compounds such as ATP, which serve as the main source of cellular energy.

2. A series of metabolic processes that take place within a cell in which biochemical energy is harvested from organic substance and stored as energy carriers for use in energy-requiring activities of the cell.

5. a colorless, odorless, gaseous element constituting about one-fifth of the volume of the atmosphere and present in a combined state in nature

6. a crystalline organic acid, C<sub>4</sub>H<sub>4</sub>O<sub>5</sub>, that is an important intermediate in the Krebs cycle

7. power house of the cell

8. contents outside of the nucleus and enclosed within the cell membrane of a cell. It is clear in color and has a gel-like appearance.

9. essential to metabolism of carbohydrates and fats and some amino acids.

11. a simple sugar that is an important energy source in living organisms and is a component of many carbohydrates

13. electron acceptor that is utilized in cellular respiration.