cellular respiration crossword puzzle

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| **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 hydorgen 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+ 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 4 H 4 O 5 , 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 accepter that is utilized in cellular respiration. |