

Life as you know: cellular respiration and photosynthesis

[Science](#), [Biology](#)



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Introduction

The critical cycle of energy and matter that supports the continued existence of life on earth. The important in this world of living and surviving is simply knowing the stages of cellular respiration and photosynthesis and how they interact and interdependence. Cellular respiration and photosynthesis are the two bosses that processes carry out by most living organisms to attain functional energy from nature. Plants that can make their own food source are photosynthesis. Animals, however, receive their energy through the cellular respiration.

The Stages of Cellular Respiration

Cellular respiration has three main stages they are glycolysis, the citric acid cycle, and electron transport/oxidative phosphorylation. Glycolysis in other words means “ spitting sugars” that when a process of the sugar being released for energy. It occurs when glucose and oxygen have supplied the cells by bloodstream. Glycolysis can even occur without oxygen, a process called anaerobic respiration, or fermentation. Oxygen that is not present with glycolysis. A little-known fact as well fermentation also produces lactaid acids. Lactaid Acid builds up in muscle tissue, and it can cause a burning sensation. Glycolysis is a part of the cellular respiration glucose is oxidized to carbon dioxide and water. Energy released during the reaction is captured by the energy carrying ATP. Tricarboxylic acid cycle also known as the citric acid cycle starts after two molecules of the three-carbon sugar produced in glycolysis are converted to a slightly different compound. It allows us to use the energy in the proteins, carbohydrates, and fats, it only works when

oxygen is present without oxygen no energy proteins or fat would be able to produce. Electron transport and oxidative phosphorylation is the third and final step in cellular respiration. Electron transport chain in a series of protein complexes and electron carrier molecules found within the mitochondrial membrane in eukaryotic cells. The high energy electrons generated in the citric acid cycle are passed to oxygen. A chemical with electrical gradient is formed across the inner mitochondrial membrane as hydrogen ions are pumped out of the mitochondrial matrix and the inner membrane space. ATP is ultimately produced by oxidative phosphorylation from ADP to ATP. ATP generates only occur when the electron transport chain and oxidative phosphorylation stage of cellular respiration.

Photosynthesis

The simple cycle of respiration is humans, animals, and plants all deal with cellular respiration. Animals cellular respiration requires oxygen takes it an exchange it for carbon dioxide and water as waste products. Animals are special system that helps them and allows them with the system efficiently.

Even a shark will drown in the ocean if it cannot breathe under water.

Animals and plants have a way of working together to help support one another to survive in the world. While both plants and animals' carryout cellular only plants conduct photosynthesis to make their own food.

Photosynthesis in plants make their very own food by photosynthesis.

Photosynthesis plant in the water, carbon dioxide and light energy molecules called ATP, that makes glucose molecules. The oxygen released by photosynthesis comes from the water a plant absorbs. Water molecules is

made of two hydrogen atoms and one oxygen atom. The oxygen atoms then release back into the air like a cycle. Plants can only photosynthesis when they have light to grow. Human cellular respiration is to convert glucose from food into energy. The cellular respiration in humans starts in the digested in the intestines and converted to glucose. The oxygen we breathe through our lungs stored into the red blood cells. Glucose and the oxygen travel out into the body through the circulatory system to reason cells that need energy. The body takes what it needs, and it gets replaced over and over time again. The cell oxide the glyucose molecules to produce chemical energy carbon dioxide and water. '

Equilibrium of Life

Raw materials are needed for cellular respiration requires energy from an organic source, such as glucose and oxygen to take place. Oxygen is transformed into carbon dioxide by animals and the same by the plants in the day. There is a couple reason that its important significant reach equilibrium of life inside of the ecosystem and keeping that balance. Photosynthesis in the first stage captures the sunlight, second stage the energy is used to change sunlight into carbon dioxide and the water into oxygen and glucose. What organism uses cellular respiration they have a lot of equation to detect this thing living and nonliving that all work with cellular respiration. For example, " Humans put plants into the home, and it brings oxygen to the human as well long as it has sunlight and is water". The plant takes what it needs in other words it knows how to adapt to its environment to survive the world and to be able to blend into the cellular respiration. Its s

like a little cycle between the human and plants. Autotrophs known as producers, can be grouped into two main categories such as: Photoautotrophs and chemoautotrophs. Chemoautotrophs are bacteria that makes their own food but use chemical for this process instead of light. Heterotrophs are required to consume other organisms or parts of organisms in order to obtain their food molecules. They undergo cellular respiration in order to turn the food they eat into energy they can use. ATP (adenosine triphosphate) has been called the energy currency of the cell. ATP is critically important to cellular chemical it transports the energy that is necessary for all cell metabolic activities. That even discussing the enzymes plays a part in this life on earth to work with living and non-living organism. In general, enzymes serve as catalyst for biological function, including natural involuntary bodily function. Keep in mind of the six enzymes that can make or break you if you don't know the certain function they have to function together. Kinase enzymes in the body attaches a phosphate group to a high energy bond. It is a very important enzyme required for ATP production and activation of certain enzymes. Those are some simple thing to help understand enzymes as well as photosynthesis, I just want to know that all this seem to come together with all the chapter we have been reading and working on paper work and discussion are adding up to the way the world functions with the things. That they are giving on this earth to work with make the best out of working together and to know that something might change but the enzymes the three things that are constant and those are humans, plants, and animals. Protein are linked by dehydration reactions to form polymers called polypeptides a protein consists of one or more

polypeptides folded into specific three-dimensional shape. The shape of protein is almost like the way cellular respiration works with the living and the nonliving on this earth to come and understand the different but one thing in common and that is oxygen. Things need oxygen in order to stay alive and that even goes to the living sea creature if they somehow don't have enough air under water they will surely die in the water.

Conclusion

In conclusion, the different types of layers and understanding of how the cellular respiration works. It is very simple and that the main thing on this Earth who have things in common. Those are humans, plants, and animals all have something in common and that is to survive in this world. The simple three step as well can be mindful to how to deal with photosynthesis all work together and make a better understanding in this essay to break down the different step and meaning behind there function in life.