

# Cell energy worksheet essay sample



**ASSIGN  
BUSTER**

- What is cellular respiration and what are its three stages?

1. Glycolysis
2. Krebs Cycle (Citric Acid Cycle)
3. Electron Transport Chain

Photosynthesis:

- What is the overall goal of photosynthesis?

In general, the goal of photosynthesis is to gather energy from the sun and keep it in the bonds of the organic molecules (particularly glucose). These organic compounds are utilized by both photosynthesis life forms (like plants) and heterotrophs that consume photosynthesis life forms. It is the vital step in the beginning of the food chain method.

- Because photosynthesis only occurs in plants, why is it essential to animal life? Animals cannot acquire their needed energy straight from the sun nor from the inorganic compounds placed in their surroundings. They depend on the system of photosynthesis to acquire energy from the sun and inorganic compounds, into a functional for their metabolism. There would be no food chain and energy passage if photosynthesis is inexistent and there will be no life.

| Photosynthesis | RoleReactantsProducts Where does it Occur?Light ReactionsLight reactions is to use energy of the sun to divide the water molecules into intermediary products and trash oxygen(discharged from the atmosphere)Water, energy of the sun and OxygenNADPH and ATPIn the pigment rich of the chloroplast known as the Thylakoid disks or grana.Calvin

Cycle to outline the carbon rich compounds Utilizes Carbon Dioxide as the basis of the carbon and oxygen and also the NADPH and ATP produced from the light reactions Several sugars, fatty acids and amino acids and glucose. Stroma of the chloroplast.

Summary:

Explain how photosynthesis and cellular respiration are linked within ecosystems.

These two methods are connected within the carbon cycle of ecosystems.

Both reactions are contradictory of each other in relation to chemical reactants and products. The disparities are the type of energy.

Photosynthesis uses light energy while on the other hand respiration generates high energy bond energy in ATP. The summary reactions shown below explain that if you turn over the products and reactants of each, they are reflector methods of each other.

Photosynthesis:  $6\text{Water} + 6\text{Carbon Dioxide} + \text{Light Energy} \rightarrow \text{Glucose} + 6\text{oxygen}$   
Respiration:  $\text{Glucose} + 6\text{oxygen} \rightarrow 6\text{Water} + 6\text{Carbon Dioxide} + \text{ATP energy}$

Visit the NASA website (<http://data.giss.nasa.gov/gistemp/graphs/>) and research global temperature changes. How has global warming affected overall temperatures? What effects do cellular respiration and photosynthesis have on global warming?

All of the charts present a rising temperature development (with several changes). The general temperatures look to be rising in all charts and

<https://assignbuster.com/cell-energy-worksheet-essay-sample/>

information presented on the site. In that instance, in relation to cellular respiration and photosynthesis, an allowable hypothesis is the sugars at the level of respiration exceeds the level of photosynthesis. The analysis behind this assertion is that the primary product of respiration is Carbon Dioxide which is one of the greenhouse gases that is in excess at the moment causing this development in temperatures. There are other procedures that generate Carbon Dioxide but if we are to get rid of the surplus from the atmosphere effectively, it would be best to declare that raising the level of photosynthesis would be helpful