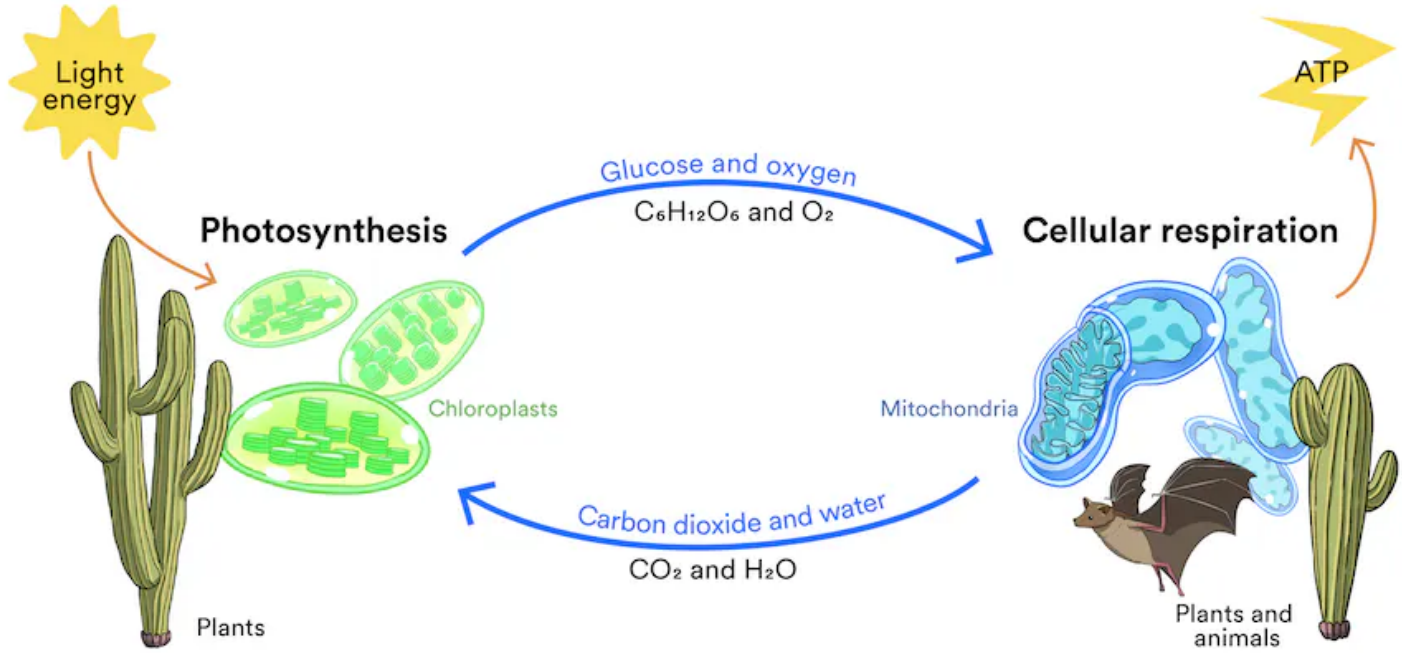
The cycle of photosynthesis and cellular respiration

By Newsela staff, Newsela staff on 02.03.20
Word Count **161**
Level **MAX**



Photosynthesis and cellular respiration are two interconnected reactions that are vital for all living organisms. Together, they act as a cycle that helps cells make and store energy. The cycle also controls the amounts of oxygen and carbon dioxide in the atmosphere.

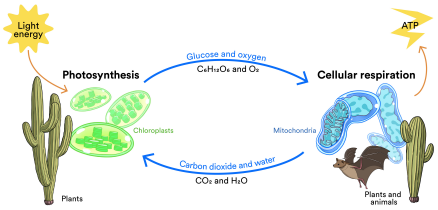


Image 1. Graphic: Newsela staff

The photosynthesis process happens in plants and bacteria. These organisms make chemical fuel using three ingredients: carbon dioxide (CO_2), water (H_2O) and sunlight. The ingredients are then turned into the sugar glucose ($C_6H_{12}O_6$) and oxygen (O_2). The photosynthesis reaction happens within the plants' chloroplasts.

All living organisms such as plants, bacteria and animals like you, use cellular respiration to obtain the energy that they need to survive. Most of the reactions in cellular respiration happen in parts of the cell called mitochondria. The reactions release carbon dioxide, water and chemical energy in the form of the molecule adenosine triphosphate (ATP). This molecule is the main source of energy for cells in all living organisms.

This article is available at 5 reading levels at https://newsela.com.

Write Prompt

In today's society, it is not uncommon for people to connect to information in the form of charts, pictures, or videos. How would you adapt an argument or an explanation presented in this article to use outside of the classroom to reach an audience? Use information from the article to support your answer.

Write Prompt

Write a short paragraph that explains the central idea of the article. Use at least two details from the article to support your response.