

Photosynthesis Flashcards PDF

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What is the process by which green plants and some other organisms use sunlight to synthesize foods with the help of chlorophyll?

Photosynthesis

What are the main products of photosynthesis?

Glucose and oxygen

In which part of the plant does photosynthesis primarily take place?

In the leaves, specifically in the chloroplasts

What is the chemical equation for photosynthesis?

$6\text{CO}_2 + 6\text{H}_2\text{O} + \text{light energy} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$

What pigment is primarily responsible for capturing light energy in photosynthesis?

Chlorophyll

What are the two main stages of photosynthesis?

Light-dependent reactions and the Calvin cycle (light-independent reactions)

What is the role of water in photosynthesis?

Water provides electrons and protons for the light-dependent reactions and is a source of oxygen.

What gas is taken in by plants during photosynthesis?

Carbon dioxide (CO₂)

What is the significance of photosynthesis to life on Earth?

Photosynthesis produces oxygen and organic compounds that are essential for the survival of most life forms.

What factors can affect the rate of photosynthesis?

Light intensity, carbon dioxide concentration, temperature, and water availability.