

Science Grade 5 - 7

THE BASICS OF PHOTOSYNTHESIS

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WHAT IS PHOTOSYNTHESIS?



PHOTOSYNTHESIS

Photosynthesis is a plant's method of producing its own food. It utilizes sunlight, water, and carbon dioxide to craft a special sugar known as glucose. This entire process takes place in the plant's green parts, such as its leaves.





WHAT DO PLANTS NEED FOR PHOTOSYNTHESIS?



SUNLIGHT

Sunlight serves as the primary source of energy for all plants.

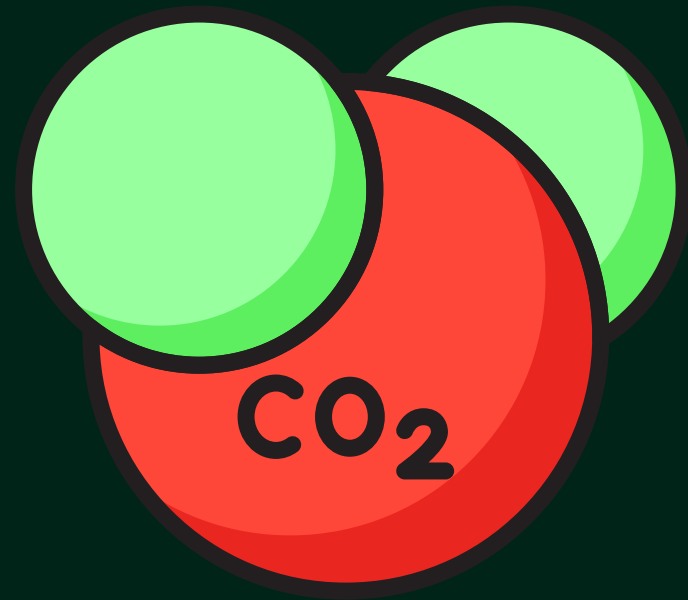
WATER

Plants need water to mix with the carbon dioxide and sunlight.



CHLOROPHYLL

Chlorophyll captures the sunlight and helps turn it into food.



CARBON DIOXIDE

Plants require carbon dioxide from the atmosphere.



HOW DOES PHOTOSYNTHESIS WORK?

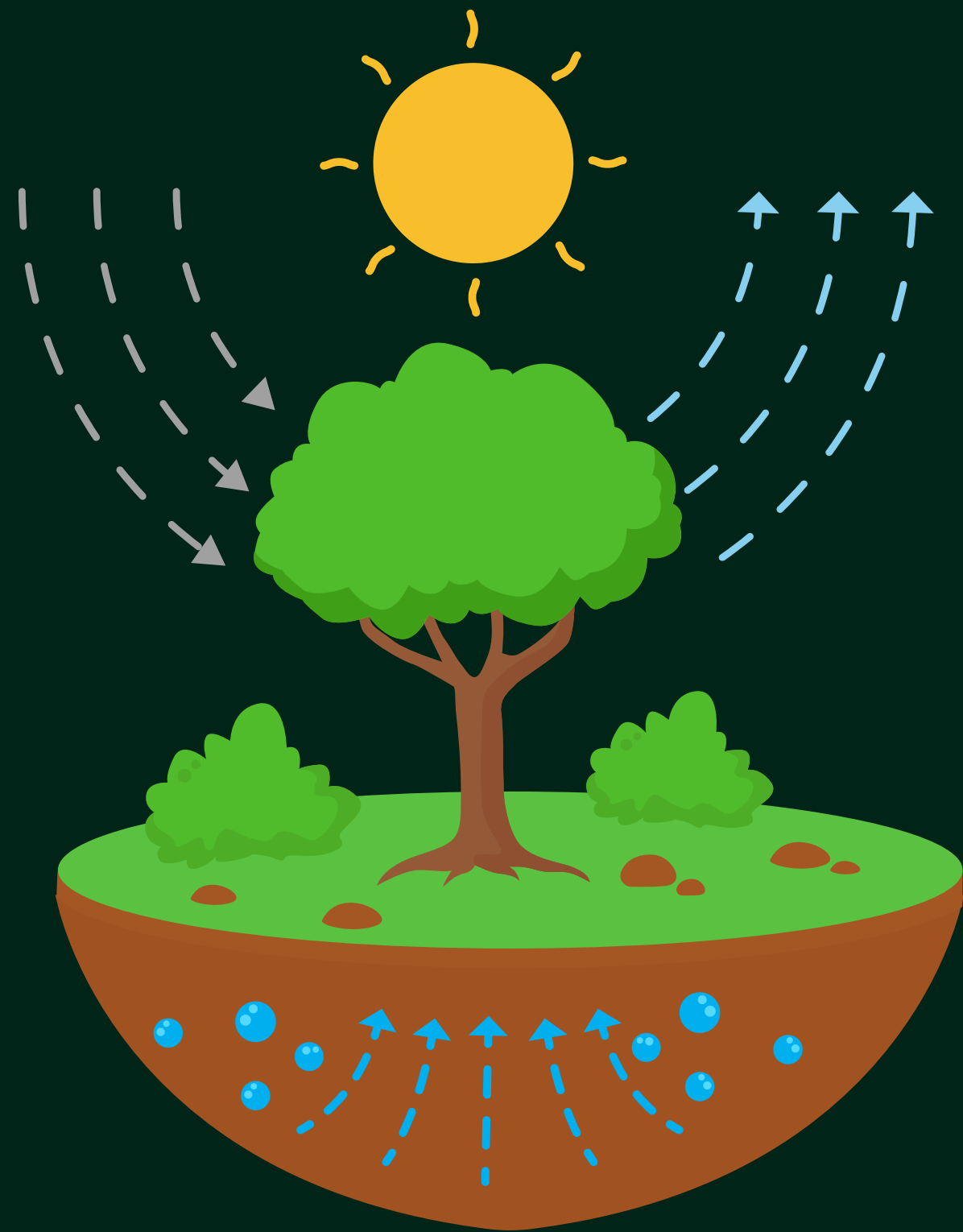
PHOTOSYNTHESIS

Chlorophyll absorbs the energy from the sun, combining it with carbon dioxide and water to create oxygen. This process transforms raw materials into sugar or glucose. Glucose is food for the plant. Another by-product of photosynthesis is the synthesis of oxygen.





WHY IS PHOTOSYNTHESIS IMPORTANT?



IMPORTANCE OF PHOTOSYNTHESIS

Photosynthesis is a fundamental biological process that not only generates oxygen—essential for the respiration of most living organisms—but also forms the base of the food chain. By converting sunlight into chemical energy, it enables plants to grow, which in turn sustains herbivores and the carnivores that feed on them, supporting life across ecosystems.

