

Photosynthesis



Photosynthesis is the process by which green plant prepare their food in the presence of Sunlight, (Carbon dioxide) CO_2 , Water and Chlorophyll.

There are four requirements for photosynthesis:

Sunlight: It comes from sun & provide energy for photosynthesis.

Carbon dioxide (CO_2): It is obtained from air and taken through tiny pores called **stomata** present on the under surface of leaves.

Chlorophyll: The chlorophyll is present in the chloroplast. Chloroplast regarded as Kitchen of cell and present in Green leaves.

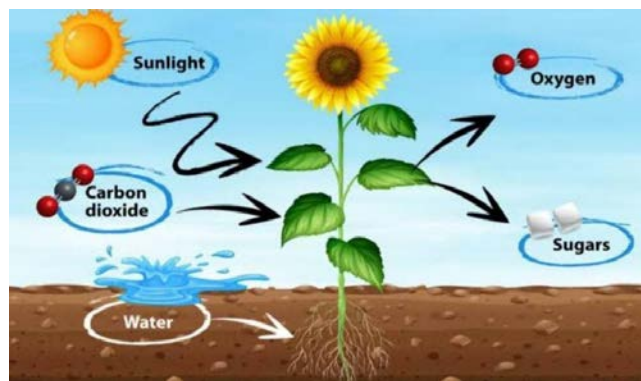
Water: They are obtained from the soil by the roots of plants and are transported to the leaves. Plants have Vascular tissues called **Xylem & Phloem**.

- (i) Xylem transport water and minerals to the leaves.
- (ii) Phloem transport food (Sucrose) to various part of plant.

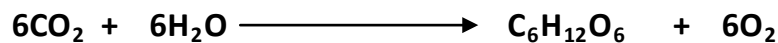
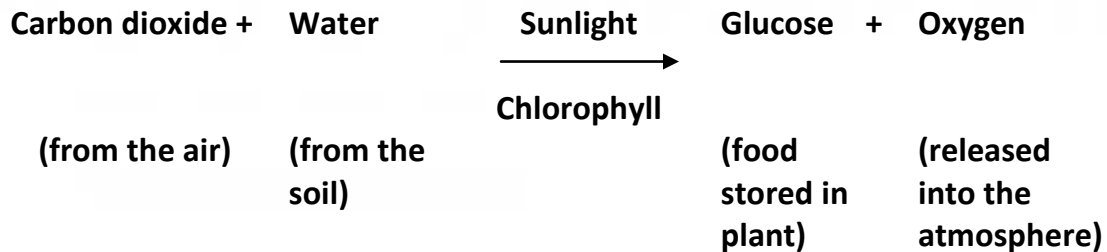


Photosynthesis- food making process in plants

The plants use the energy in sunlight to prepare food in the presence of a green colour matter called “chlorophyll” present in the leaves of a green plant. The process by which green plants make their own food (like glucose) from carbon dioxide and water by using sunlight energy (in the presence of chlorophyll) is called **photosynthesis**.



Photosynthesis



During photosynthesis green plants take carbon dioxide of the air through tiny pores called stomata. The stomata are present on the under surface of the leaves.

Water and minerals are absorbed through their roots, stem, branches and leaves.

Using the energy from the Sun, a chemical reaction takes place in the green parts of the plant, in which carbon dioxide and water are converted into food in the form of glucose.



The glucose carbohydrate then gets converted into a complex carbohydrate called **Starch** and stored in leaves, stems, roots, etc.

The synthesis of food (or making of food) occurs in the leaves of a plant, so leaves are the food factories of a plant. The food synthesized by the green leaves is then transported to the other parts of the plant by the stem.



Oxygen is released in the process which is utilized by all the living organisms for their survival.