

BIOLOGY

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- Price Rs. 175.00 each

Photosynthesis

The process of manufacturing food by green plants with the help of water, carbon dioxide and light and chlorophyll is called photosynthesis. It is a chemical reaction in which the weight of the products is more than the weight of the reactants. The equation for photosynthesis is:

$$6CO_2 + 12H_2O \xrightarrow{\text{Light}} C_6H_{12}O_6 + 6O_2 + 6H_2O$$

Requirements for Photosynthesis:

1. A green plant part (leaf) with chlorophyll.
2. A green plant part (leaf) with chlorophyll.
3. A green plant part (leaf) with chlorophyll.

T. S. Leaf

T.S. of Dorsal Surface **T.S. of Ventral Surface**

T.S. of Epidermal Part **T.S. of Mesophyll Part**

T.S. of Upper Leaf **T.S. of Lower Leaf**

T.S. of Stomatal Pore **T.S. of Guard Cell**

T.S. of Chloroplast **T.S. of Xylem**

Viruses

Dr. H. Stanley: He was the first one to isolate virus from tobacco leaves.

Classification based on shape

Classification based on composition

Classification based on their hosts

Classification based on their effect

Viral diseases

Bacteria

Prokaryotes have no nucleus and hence, being a prokaryote, it has the characteristics of other prokaryotic cells. Bacteria range in size from 1 to 10 micrometers. They are known as 'bacteria' and 'prokaryotes'.

Classification of Bacteria

Cell Shape

Respiration in Bacteria **Chemical Nature of Cell Wall**

Bacterial Growth and Reproduction

Bacterial Activities **Some Bacterial Diseases**

Pollination

The transfer of pollen from the anther of a flower to the stigma of the same or another flower is known as pollination. Pollination is a prerequisite for fertilisation.

Types of Pollination

Agents of Pollination