

CHAPTER - 1

Nutrition In Plants

Class---VII

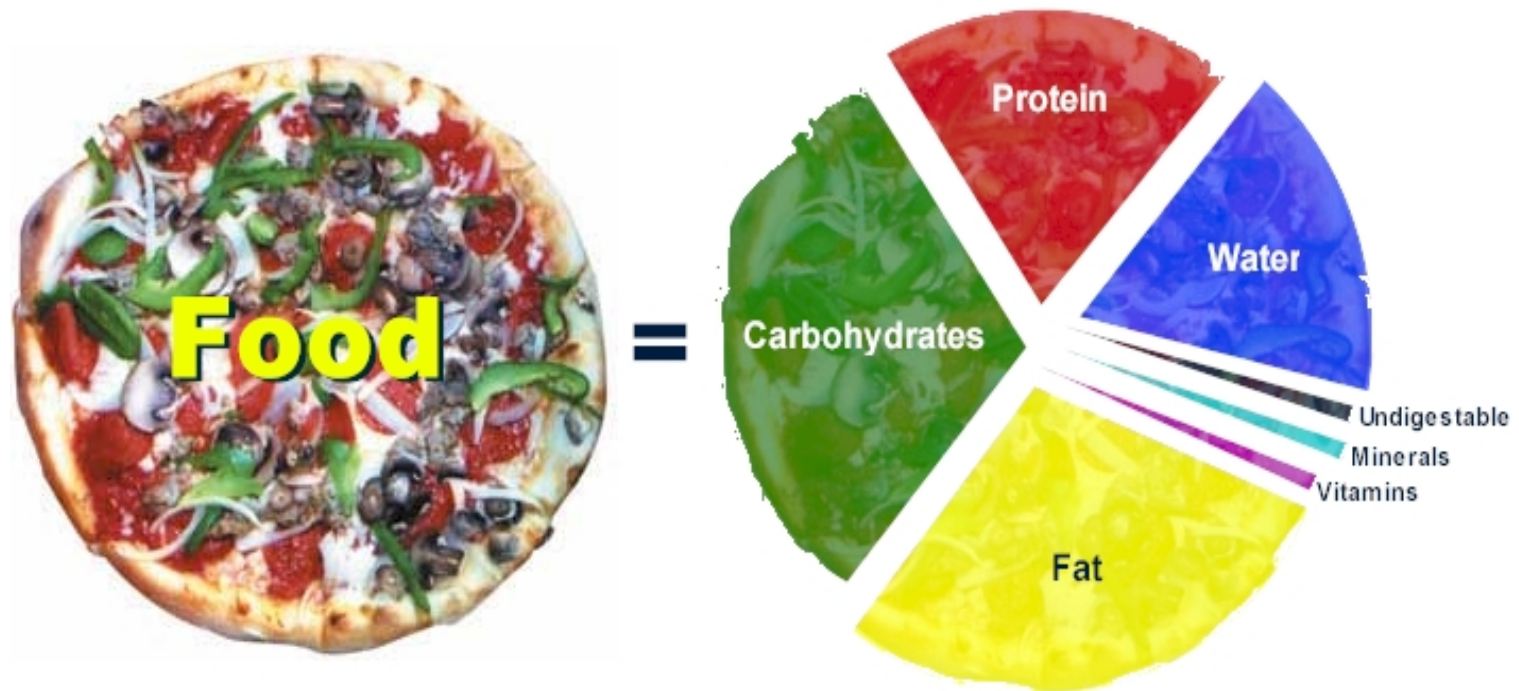
Subject---Science

1. Nutrients

The components of food like carbohydrate, fat, protein, vitamins and mineral etc. are called nutrients.

Nutrients help living organisms in following ways:-

- i) To build their bodies
- ii) To grow
- iii) To repair the damaged parts of their bodies
- iv) To provide energy to carry out life processes



2. Nutrition

The mode of taking food by an organism and its utilization in the body is called nutrition.

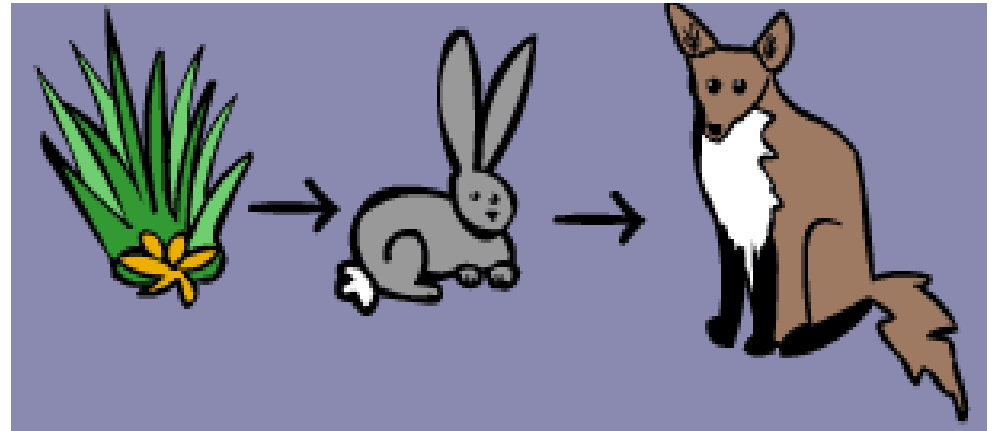
3. Modes of Nutrition There are two main modes of nutrition in living organisms. They are autotrophic nutrition and heterotrophic nutrition.

Autotrophic Nutrition is nutrition in which organisms can prepare their own food.

Organisms which can prepare their own food are called autotrophs.

ii) **Heterotrophic Nutrition** is nutrition in which organisms get their food directly or indirectly from plants.

Organisms which get their food directly or indirectly from plants are called heterotrophs.



4. Photosynthesis – A Food Making Process in Plants

Photosynthesis is the process by which plants prepare their own food by using **sunlight, water, carbon dioxide and chlorophyll.**

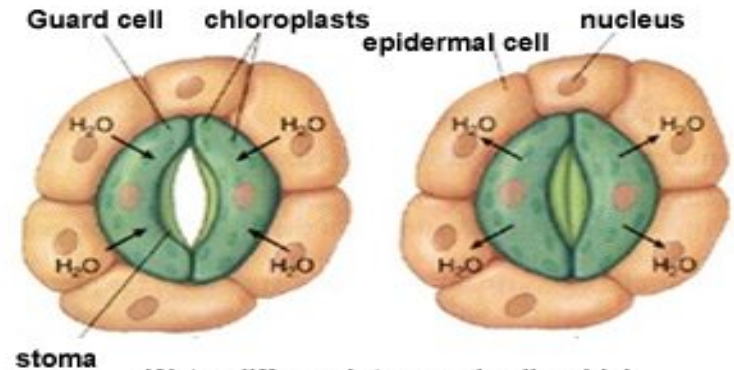
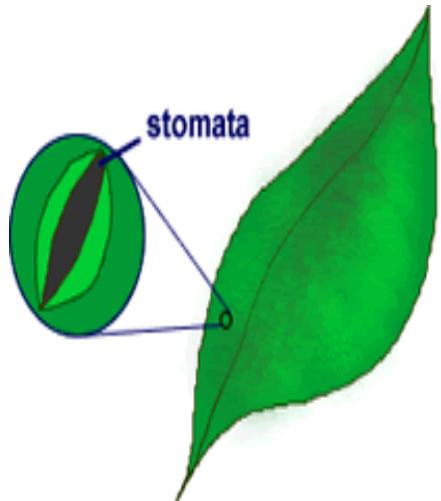
Photosynthesis takes place in the leaves

Sunlight is obtained from the sun

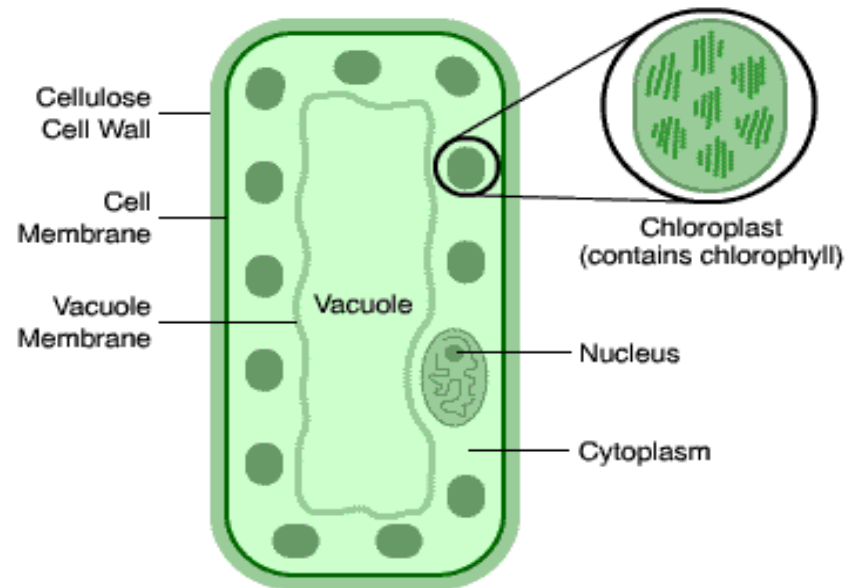
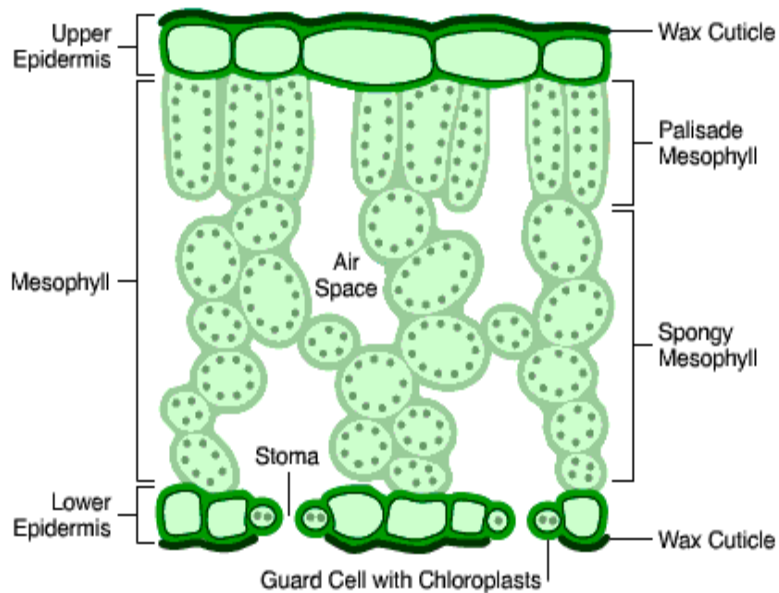
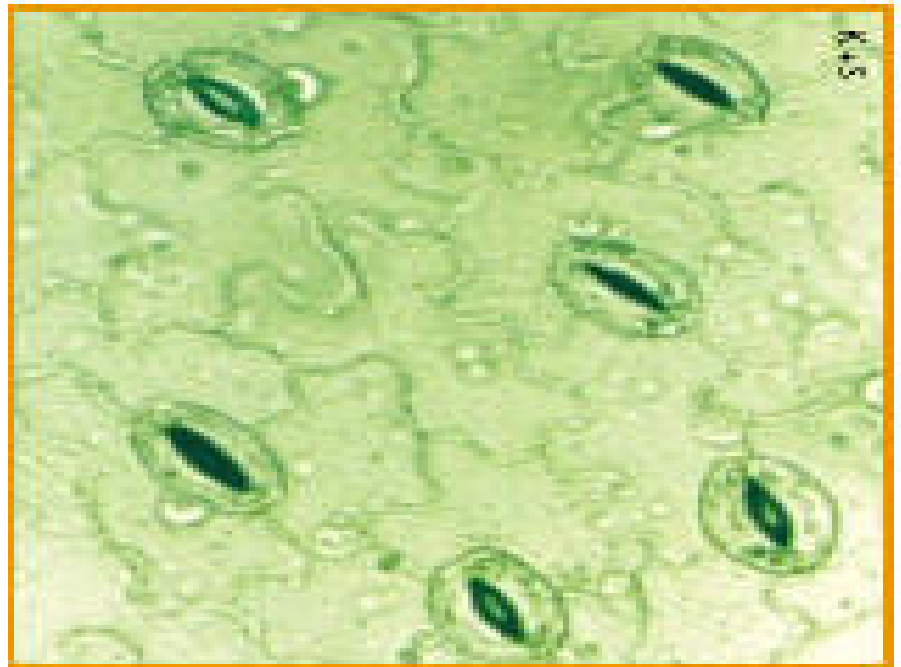
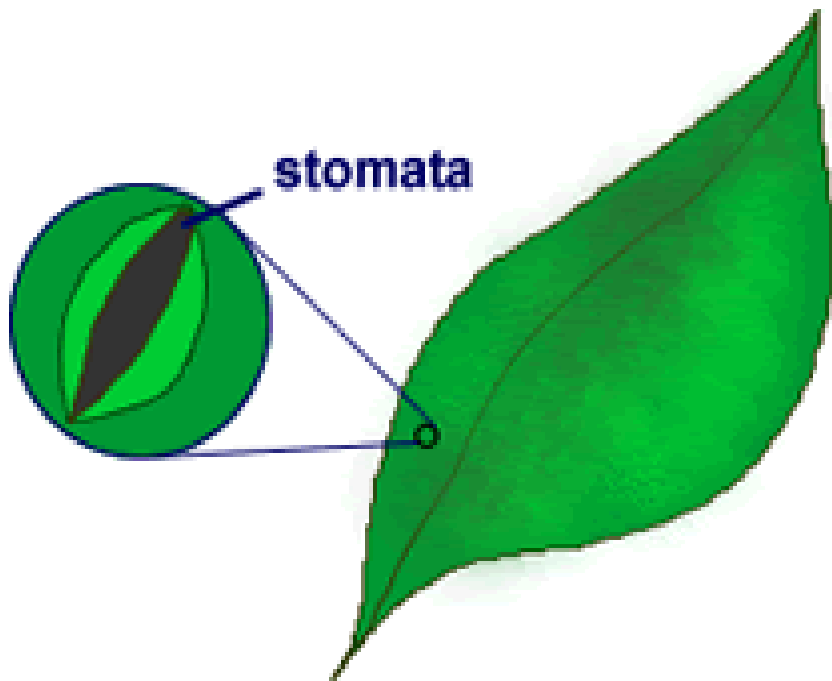
Water is absorbed by the roots and transported to the leaves

Carbon dioxide is taken from the air through small pores in the leaves called stomata

Chlorophyll is the green pigment present in the leaves



Water diffuses into guard cells which causes them to open. On hot/dry days, the guard cells have less water, they relax and the stoma close



Chlorophyll uses the energy from sunlight to prepare food by using water and carbon dioxide. The food prepared is carbohydrate which is then converted into starch. During photosynthesis, oxygen is released.

Chemical Equation of Photosynthesis:

