The Fundamental Unit Of Life
Cell Organelles (Plastids)

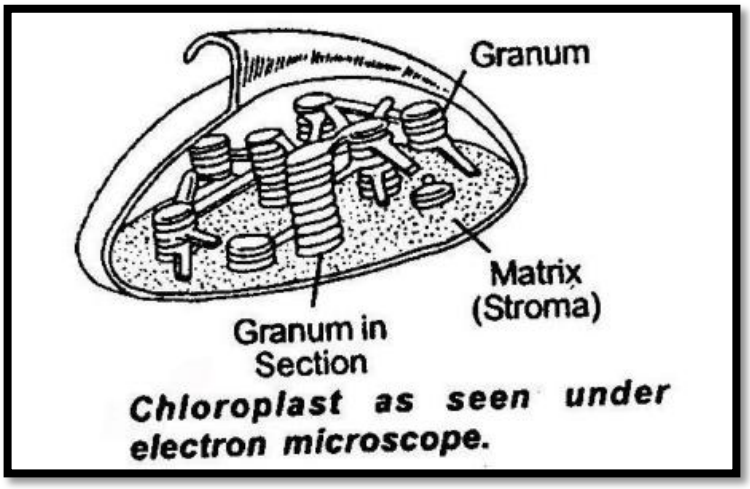
Plastids: Plastids are bounded by a double membrane. They occur in plant cells only.

They are of three types:

(a) Leucoplasts : They are colourless and store food in the form of starch, proteins and fats.

(b) Chromoplasts : They are variously coloured like red, orange, yellow, etc, except green.

(c) Chloroplasts : They are green coloured plastids because of the presence of chlorophyll. They trap the solar energy and perform the function of photosynthesis.



Chloroplast as seen under electron microscope.

Functions:

(i) Provide gaudy colours to fruits and flowers, helping in pollination and dispersal.

(ii) Perform the functions of photosynthesis.

Introduction:

Plastids are organelles enclosed by a double membrane found in all plants.

Historical Account:

E. Heckel (1865) gave the term plastid. Plastids are largest cell organelles.

Ultrastructure :

- Plastids occur in most plant cells and are absent in animal cells.
- Plastids are self-replicating organelles like mitochondria i.e. they have the power to divide.
- **Schimper** divided plastids into three types:
- **Chromoplast** - Coloured plastids (except green colour)
- **Chloroplast** - Green coloured plastids
- **Leucoplast** - Colourless plastid.
- Plastids also have double membrane but no cristae.

q Functions of Plastids:

- Chloroplasts trap solar energy and utilized it to manufacture food for the plant.
- Chromoplast impart various colour of flower to attract insect for pollination.