

Chapter 02

Plant Tissues

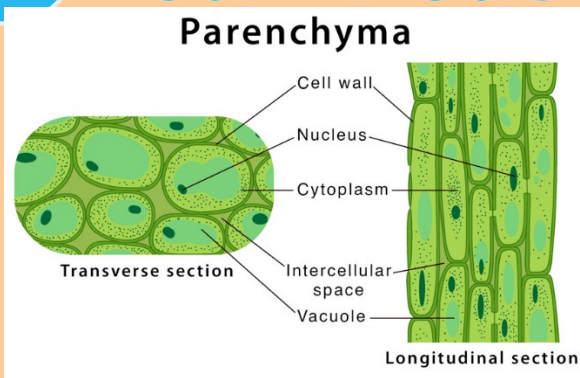
Ground tissues:

- The ground tissue are of various types.
- Some of the ground tissues help in photosynthesis.
- Ground tissue forms the bulk of the plant body. Ground tissue helps in storage of food and provides physical support to the plant body.

There are three types of ground tissue.

They are parenchyma, collenchyma and sclerenchyma (show pictures of diff types of cell).

Parenchyma:



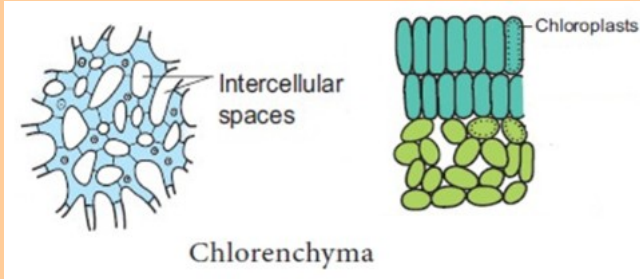
- They are soft, thin walled and loosely packed.
- Sometimes the parenchyma cells might contain chloroplast that helps in photosynthesis.

Chlorenchyma:

Modified parenchyma cells, which contains chloroplasts are

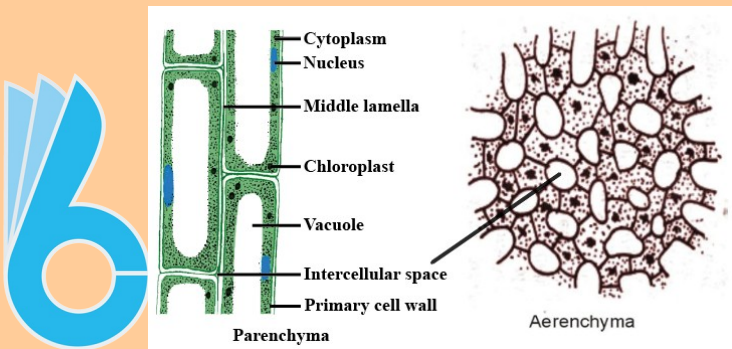
called “Chlorenchyma”.

Apart from this, you might have seen lotus and other aquatic plants float on top of water.



Aerenchyma:

Modified parenchyma cells that contains large air cavities. It helps in diffusion of gases and provide buoyancy to plants.



Storage tissue:

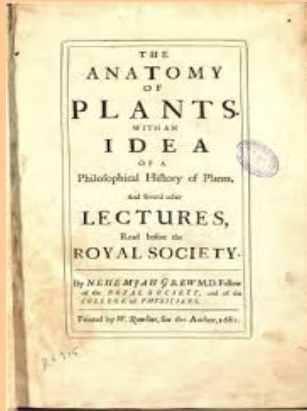
The parenchyma, which stores water or food or waste products is called “Storage tissue.”

A physician Nehemiah Grew coined the term parenchyma. He worked on internal structure of plants in the year 1664.

The fundamental inference was that “Every plant organ consists of two types of organical parts.

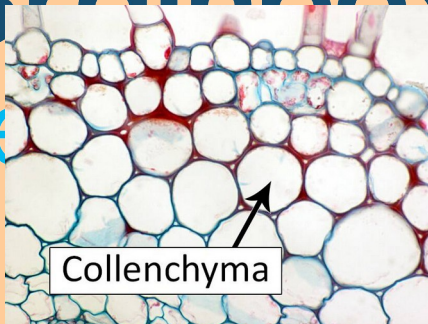
- Pithy
- Ligneous part

Grew gave the term “parenchyma” for the pithy part and he initiated the study of tissues, which is called Histology in plant bodies and published his work as the book ‘Anatomy of Plants’ in the year 1682.



Collenchyma:

They are longer cells and are thick walled when compared with parenchyma.



Sclerenchyma:

The sclerenchyma cells are thick walled and tightly packed without spaces.

