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- **Plant Anatomy** is the general term for the study of the internal structure of plants.
 - Plant anatomy is one of the oldest fields of botany, having been initiated by **Nehemiah Grew** and **Marcello Malpighi** in **1671**.
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- Plant anatomy is the study of the physical structure of plants.
 - It is also known as **phytoanatomy**, with a practitioner of this scientific discipline being known as a phytoanatomist.
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People are separating plant anatomy and plant morphology, with anatomy being concerned with the **internal structure of plants**, while morphology involves the **exterior appearance of a plant**.



Importance / Scope of Plant Anatomy


The objectives

Study Field of Plant anatomy

Histology


Cell



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- Structural and functional organization
 - To understand the conduction path of water and mineral nutrients
 - Translocation of assimilates into different plant parts
 - Plant metabolic activity
 - Plant development and storage of food
 - Wood structure and industrial activity
 - Plant protection against pests
 - Discovering new plant species




The objectives of plant anatomy

- To learn more about how organisms are put together and how they work
 - To obtain a deeper knowledge of how to care for plants
 - How to address plant diseases and stressful condition ?
 - To understand the function of structures.
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Field of Plant Anatomy

- The structure of plants as a whole
 - The dissection of plants to learn about their component parts.
 - The components of tissue and a single cell
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Histology is a Branch of Plant anatomy

The study of the **tissues** of plants is called **histology**.

It is performed by examining a thin slice (section) of tissue under a light microscope or electron microscope.

It is the study of the organization of tissues.