

TISSUES

SUBJECT- BIOLOGY
CHAPTER NO- 6

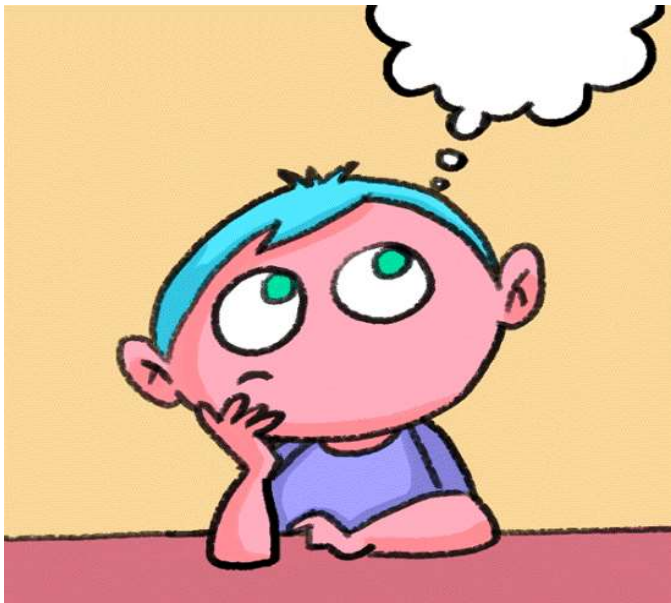
Study of structure and functions of parenchyma, Sclerenchyma
, permanent slides.

PERIOD-5

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

- Student will be able to know the structure of parenchyma, collenchymas and sclerenchyma
- Student will be familiarized with the function of all these three types of simple permanent tissues
- They will be able to analyze and identify the different types of simple permanent tissues.

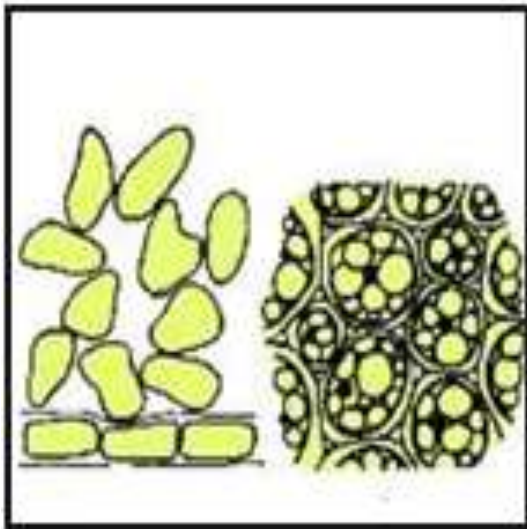


WARM UP QUESTIONS

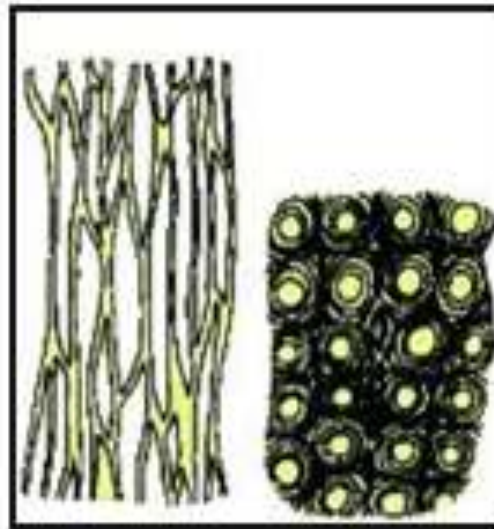
- Recapitulation of the previous topic
- What do you mean by Permanent tissue?
- List the types of permanent tissues
- Can you name the simple permanent tissue?
- What are the main functions of simple permanent tissues?

- Initiate children to see the permanent slide of simple permanent tissues.
- <https://youtu.be/7t5pn4bDIPQ>
- Ask them to record their observation

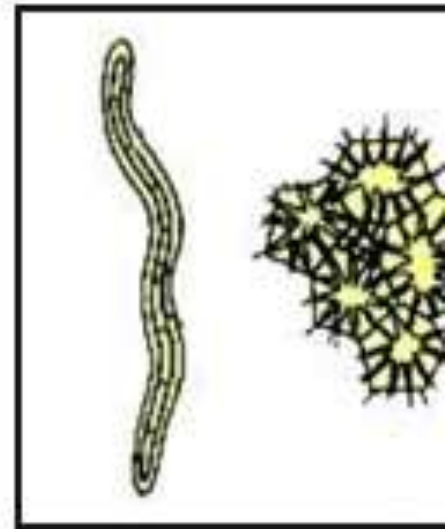
Types of Plant Tissue



**Parenchyma
Tissue**



**Collenchyma
Tissue**



**Sclerenchyma
Tissue**

Simple permanent tissues

- Made of only one type of cells

Parenchyma

- Isodiametric cells
- Can have varied shapes
- Thin walls, made of cellulose
- Either closely packed or have intercellular space
- Perform photosynthesis, storage and secretion

Collenchyma

- Occur in the layer below epidermis
- Perform photosynthesis when chloroplasts are present
- Homogenous or in patches
- Corners thickened with cellulose, hemicelluloses or pectin
- No intercellular spaces
- Provide mechanical support

Sclerenchyma

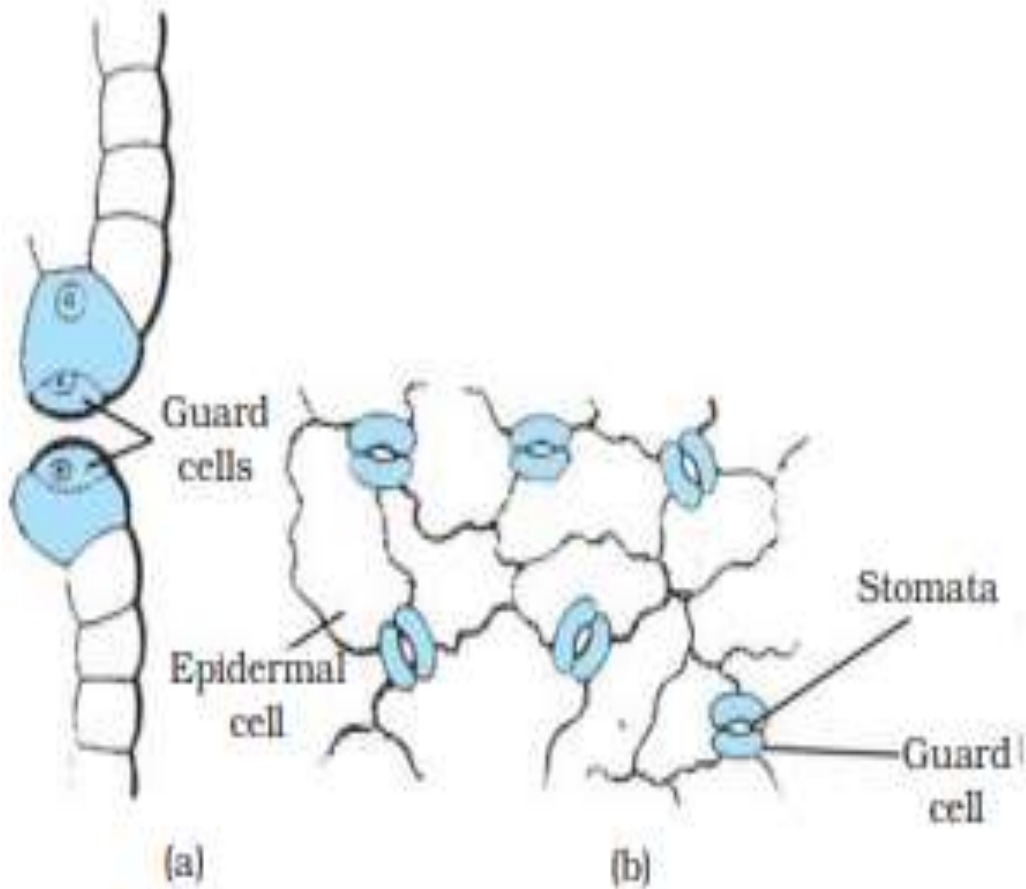
- Long, narrow cells
- Walls lignified with pits (lumen)
- Usually dead or without protoplast

Fibres

- Thick-walled, elongated
- Occur in groups

Sclereids

- Spherical or oval
- Thickened dead cells



ig. 6.5: *Guard cells and epidermal cells: (a) lateral view, (b) surface view*

- Epidermis of leaves contain **stomata**.
- Functions of stomata
- Help in gaseous exchange
 - Helps in transpiration

HOME ASSIGNMENT

- Q. Why cork and epidermis are called as protective tissues in plants
- Q. Explain the structure and functions of parenchyma, collenchymas and sclerenchyma
- Q. Mention the types of parenchyma and their functions.

THANKING YOU
ODM EDUCATIONAL GROUP