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Plant Tissues

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Tissues and Types

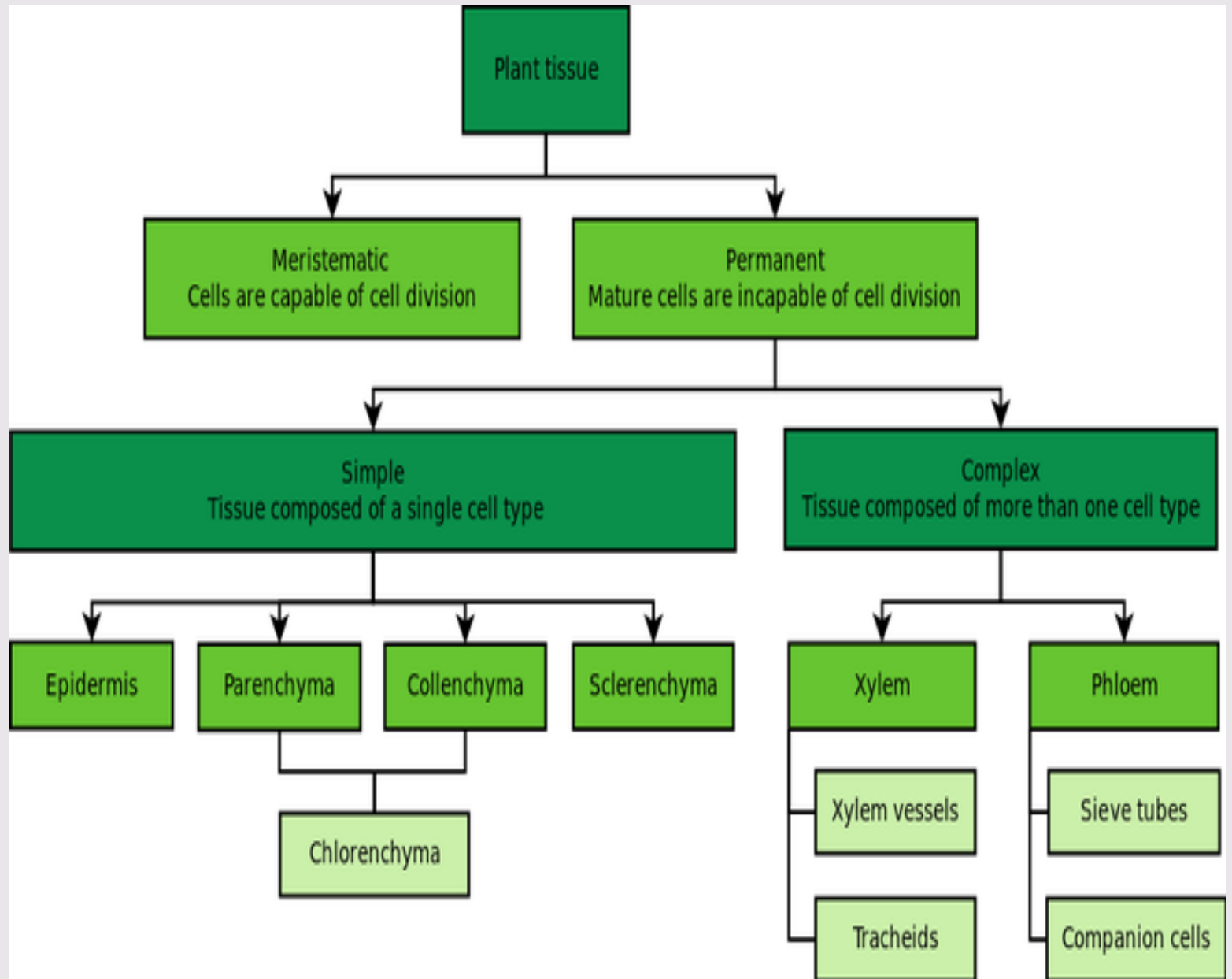
Tissue: *A collection of cells which are similar in structure and origin and performing a specific function for the plant is called tissue*

- Plant tissues may be classified into two major groups
 - i. Meristematic tissue
 - ii. Permanent tissue



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i. Meristematic Tissue

- Ability to divide and redivide
- Living, dense cytoplasm, thin cellulose walls, prominent nuclei, lack vacuole
- Newly formed cells are similar to the parent cell but their characteristics change as they differentiate
- Found in growing areas of plants
- Help in increase of length and girth



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Types of Meristematic Tissue

1. Apical Meristem

Location: Found in growing tips of stem and roots

Function: Helps in increase in length of plant

2. Lateral Meristem

Location: Found on sides of stem and roots.

Function: Helps in the plant's increase in diameter

3. Axillary Meristem (or intercalary meristem)

Location: Found at the base of leaves or internodes

Function: Helps in increase in length of organs like leaves and internodes



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ii. Permanent Tissue

- Growth process has been ceased
- Originate from both the primary and the secondary meristematic tissues
- **Two types:**
 - i. **Simple tissue:**
 - Parenchyma
 - Collenchyma: Mechanical support
 - Sclerenchyma: Lignified walls provides strength and making them water proof
 - ii. **Complex tissue:**
 - Xylem : Water conduction
 - Phloem: Food conduction



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Thank You