

# "Tissues"

## Definition of Tissue

A **tissue** is a group of cells that have a common origin, structure, and function.

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## 🌀 Types of Tissues

Tissues are broadly classified into **Plant Tissues** and **Animal Tissues**.

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### 🌿 1. Plant Tissues

#### A. Meristematic Tissue (actively dividing cells)

- **Apical meristem** – at tips of roots and shoots.
- **Lateral meristem** – for increasing girth (width).
- **Intercalary meristem** – at base of leaves/internodes.

#### B. Permanent Tissue (non-dividing, specialized)

- **Simple Permanent Tissue**
    - **Parenchyma** – soft, living cells; storage.
    - **Collenchyma** – flexible support (e.g., in petioles).
    - **Sclerenchyma** – rigid support (dead cells).
  - **Complex Permanent Tissue**
    - **Xylem** – water transport (includes tracheids, vessels).
    - **Phloem** – food transport (includes sieve tubes, companion cells).
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### 🐾 2. Animal Tissues

#### A. Epithelial Tissue (covering)

- **Simple squamous, columnar, cuboidal, ciliated, glandular**

#### B. Connective Tissue (support & binding)

- **Areolar, Adipose, Bone, Cartilage, Blood, Ligaments, Tendons**

#### C. Muscular Tissue (movement)

- **Skeletal muscles** (voluntary)

- **Smooth muscles** (involuntary)
- **Cardiac muscles** (heart)

## D. Nervous Tissue

- **Neurons** (nerve cells) – transmit signals
- **Neuroglia** – support and nourish neurons

