Technical Vocabulary of Botany

1. Plant Morphology (Structure)

- **Root** – absorbs water and nutrients
- **Taproot** – main central root
- **Fibrous root** – many thin roots
- **Stem** – supports plant and transports substances
- **Leaf** – organ for photosynthesis
- **Blade (lamina)** – flat part of the leaf
- **Petiole** – stalk that attaches leaf to stem
- **Node** – point where leaves grow
- **Internode** – space between nodes
- **Bud** – undeveloped shoot
- **Flower** – reproductive structure
- **Fruit** – mature ovary containing seeds
- **Seed** – reproductive unit

2. Reproductive Structures

- **Stamen** – male reproductive organ
- **Anther** – produces pollen
- **Filament** – supports the anther
- **Pistil (carpel)** – female organ
- **Stigma** – receives pollen
- **Style** – connects stigma to ovary
- **Ovary** – contains ovules
- **Ovule** – becomes seed after fertilization
- **Pollen** – male gametes
- **Nectar** – sugary liquid attracting pollinators

3. Plant Physiology (Processes)

- **Photosynthesis** – process of making food using light
- **Respiration** – release of energy from glucose
- **Transpiration** – water loss through leaves
- **Germination** – seed growth process
- **Pollination** – transfer of pollen
- **Fertilization** – fusion of gametes
- **Absorption** – uptake of water and nutrients
- **Translocation** – movement of nutrients

4. Plant Classification

- **Angiosperms** – flowering plants

LIVEWORKSHEETS

- **Gymnosperms** – non-flowering seed plants
- **Bryophytes** – mosses and liverworts
- **Pteridophytes** – ferns
- **Monocots** – one seed leaf
- **Dicots** – two seed leaves
- **Herb** – soft-stem plant
- **Shrub** – medium woody plant
- **Tree** – large woody plant

5. Cells and Tissues

- **Cell wall** – rigid outer layer
- **Chloroplast** – photosynthesis organelle
- **Vacuole** – storage structure
- **Xylem** – transports water
- **Phloem** – transports sugars
- **Meristem** – growth tissue
- **Cambium** – produces new cells

6. Ecology & Environment

- **Habitat** – natural environment
- **Ecosystem** – community of organisms
- **Biodiversity** – variety of life
- **Adaptation** – survival trait
- **Climate** – weather conditions
- **Soil** – medium for plant growth
- **Nutrients** – essential substances for growth

7. Growth & Development

- **Photosynthate** – product of photosynthesis
- **Dormancy** – period of inactivity
- **Tropism** – growth response to stimuli
- **Phototropism** – response to light
- **Geotropism (gravitropism)** – response to gravity
- **Growth rate** – speed of development

Learning Objective

Students will be able to recognize, define, and use technical botanical vocabulary in context.

LIVEWORKSHEETS