

| S. No. | Monocot Stem  | Dicot Stem  |
|--------|---|---|
| 1.     | Epidermis single layered and no epidermal hairs   | Epidermis single layered and epidermal hairs are present  |
| 2.     | Hypodermis sclerenchymatous   | Hypodermis collenchymatous  |
| 3.     | The vascular bundles are scattered in arrangement   | The vascular bundles are arranged in a ring   |
| 4.     | The vascular bundles at the periphery are smaller in size than those at the center  | The vascular bundles are of the same size   |
| 5.     | The vascular bundles are conjoint, collateral and closed; the sclerenchymatous bundle sheath is present; the vessels are arranged in V- or Y-shape; water cavity is present | The vascular bundles are conjoint, collateral and open; the bundle sheath is absent; the vessels are arranged in rows; water cavity is absent |
| 6.     | Only ground tissue is present   | A well defined cortex, endodermis, pericycle and pith are present   |

A few typical dicotyledonous stems and monocotyledonous stems that can be selected for study of anatomical are given in the following table.

| Dicotyledonous Stems  | Monocotyledonous Stems   |
|---|--|
| <i>Helianthus</i> (sunflower)<br><i>Tinospora</i><br><i>Ricinus</i> (castor)<br><i>Xanthium</i> | <i>Zea mays</i> (maize/corn)<br><i>Canna</i><br><i>Asparagus</i><br><i>Cynodon dactylon</i> (Doob grass) |