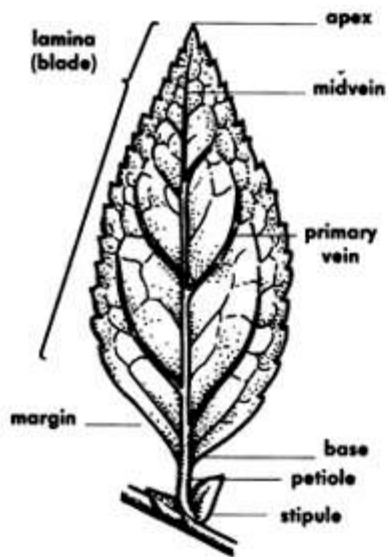
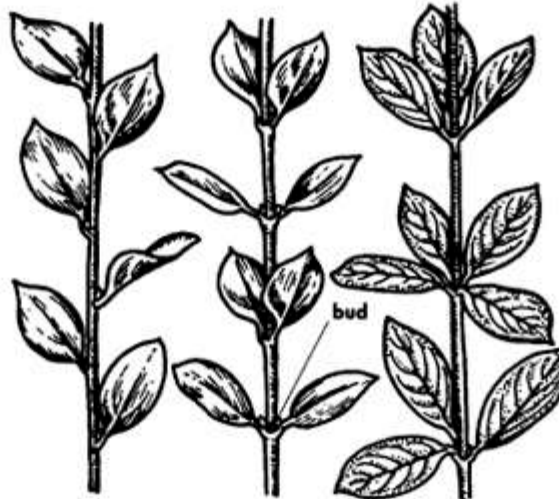


# Leaf Composition, Parts, and Types



**LEAF PARTS**



**ALTERNATE**

**OPPOSITE**

**WHORLED**



**IMBRICATE**

**FASCICLED**



**SIMPLE (SESSILE)**



**PALMATELY COMPOUND**



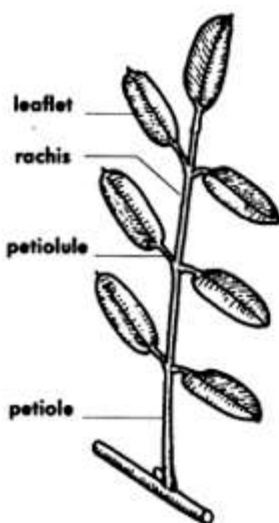
**PALMATELY TRIFOLIOLATE (TERNATE)**



**PINNATELY TRIFOLIOLATE**



**BITERNATE**



**ODD-PINNATE**



**EVEN-PINNATE**



**BIPINNATE**

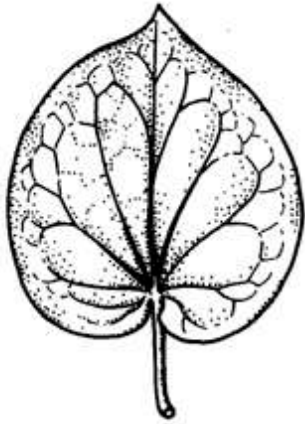


**TRIPINNATE**

# Leaf Shapes



ACICULAR



CORDATE



DELTOID



ELLIPTIC



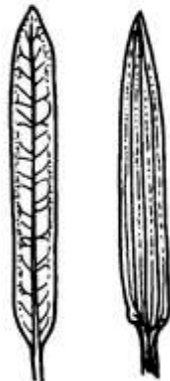
FALCATE



HASTATE



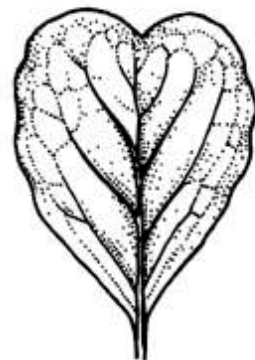
LANCEOLATE



LINEAR



LYRATE



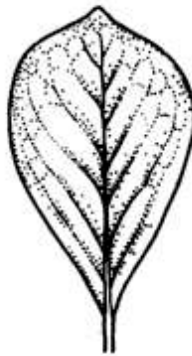
OBOVATE



OBLANCEOLATE



OBLONG



OBOVATE



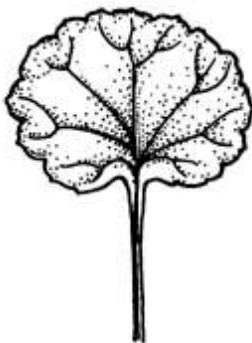
ORBICULAR



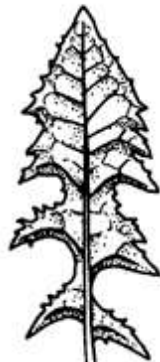
OVAL



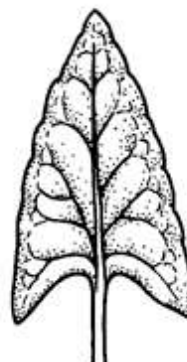
OVATE



RENIFORM



RUNCINATE

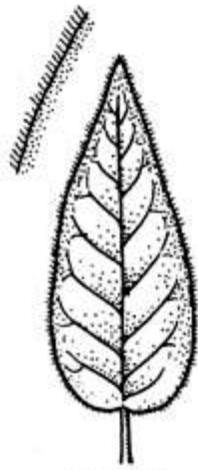


SAGITTATE

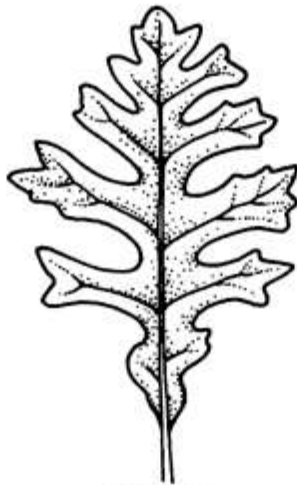


SPATULATE

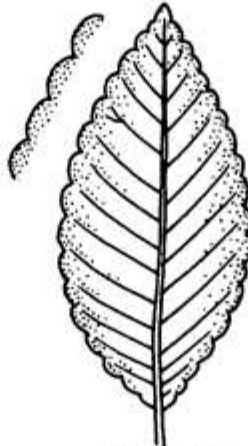
# Leaf Margins



CILIATE



CLEFT



CRENATE



CRENULATE



DENTATE



DENTICULATE



ENTIRE



INCISED



INVOLUTE



LACERATE



LACINIATE



LOBED



PINNATIFID



REVOLUTE



SERRATE



DOUBLY SERRATE



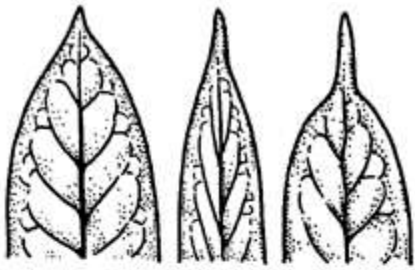
SERRULATE



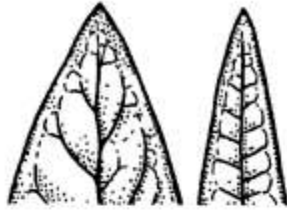
SINUATE

# Leaf Apices, Venation, and Bases

## APICES



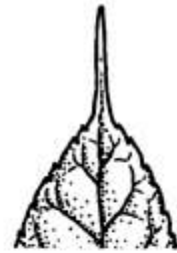
BROADLY NARROWLY ABRUPTLY  
ACUMINATE



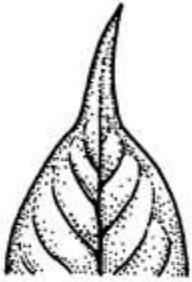
BROADLY NARROWLY  
ACUTE



APICULATE



ARISTATE



CAUDATE



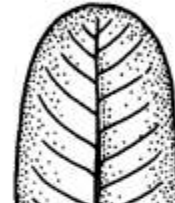
CUSPIDATE



EMARGINATE



MUCRONATE



OBTUSE



RETUSE

## VENATION



ARCUATE



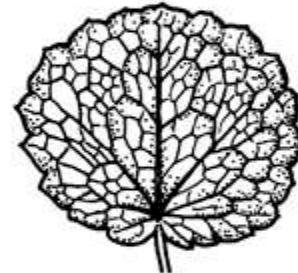
PALMATE



PARALLEL

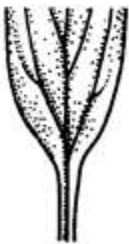


PINNATE



RETICULATE

## BASES



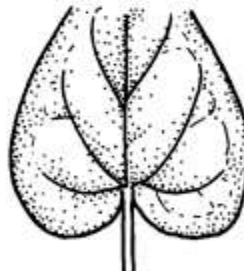
ATTENUATE



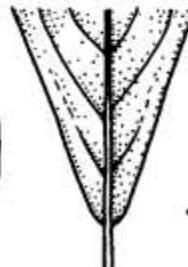
AURICULATE



CLASPING



CORDATE



CUNEATE



HASTATE



OBLIQUE



PELTATE



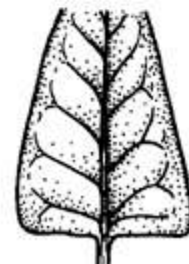
PERFOLIATE



ROUNDED

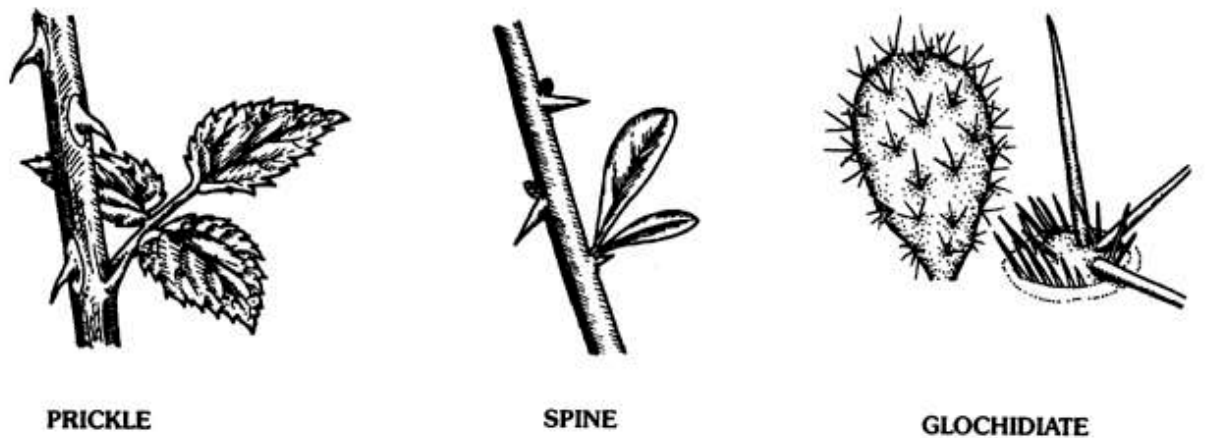
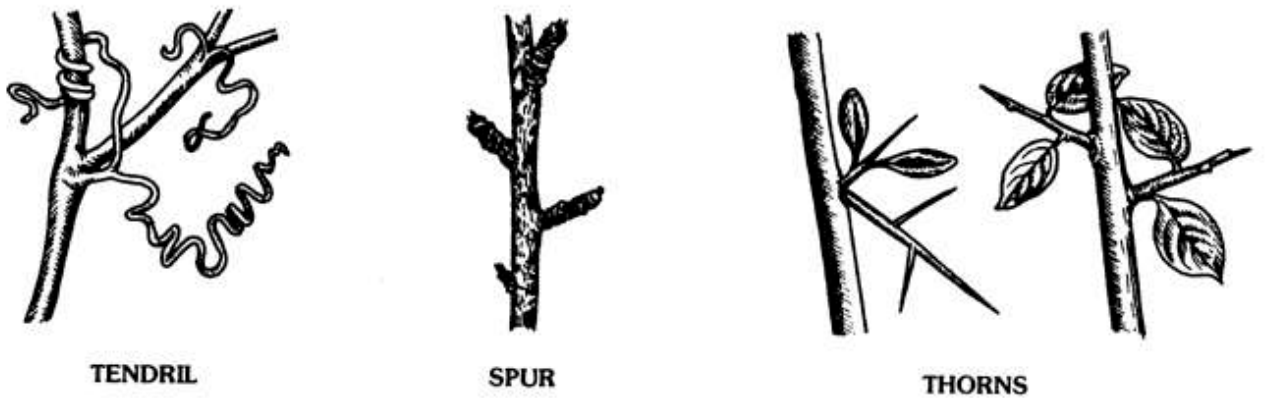
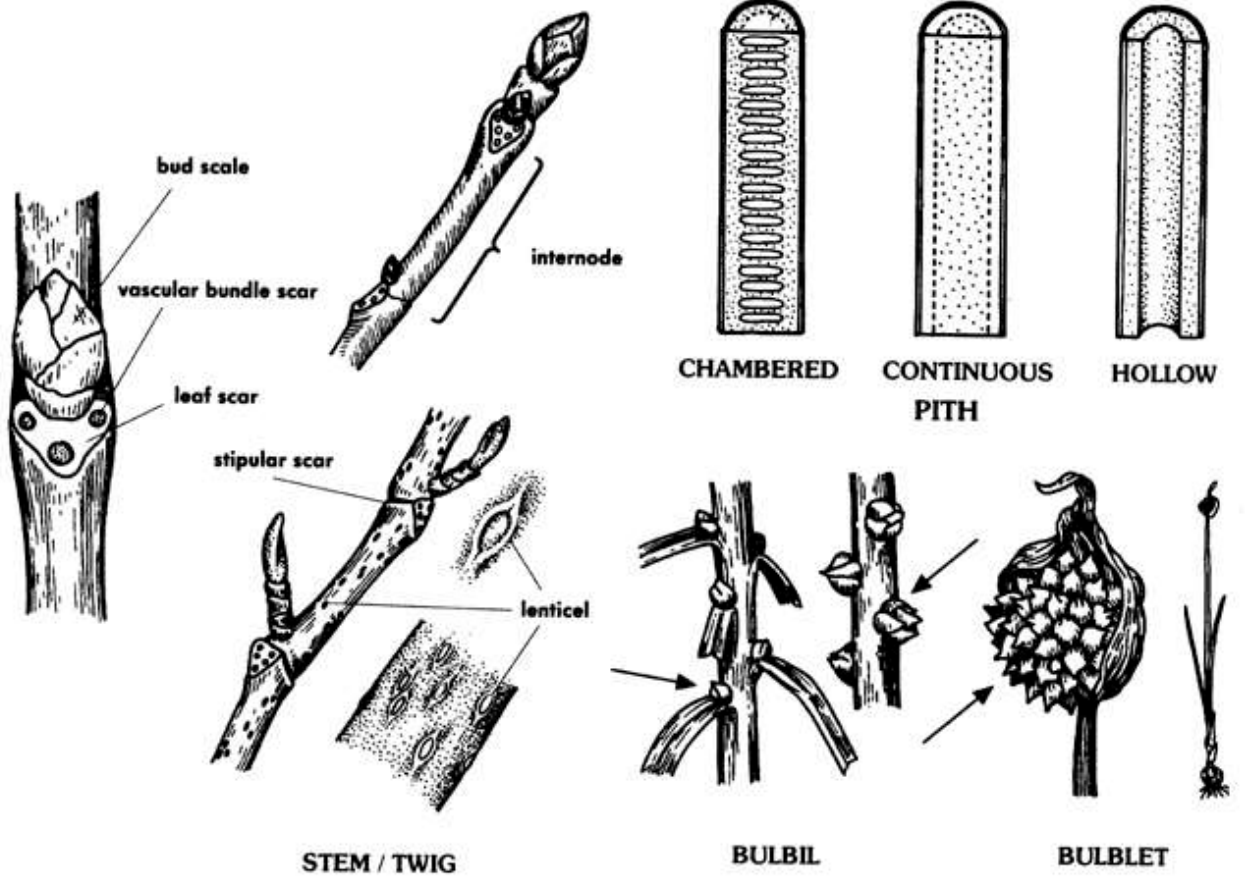


SAGITTATE

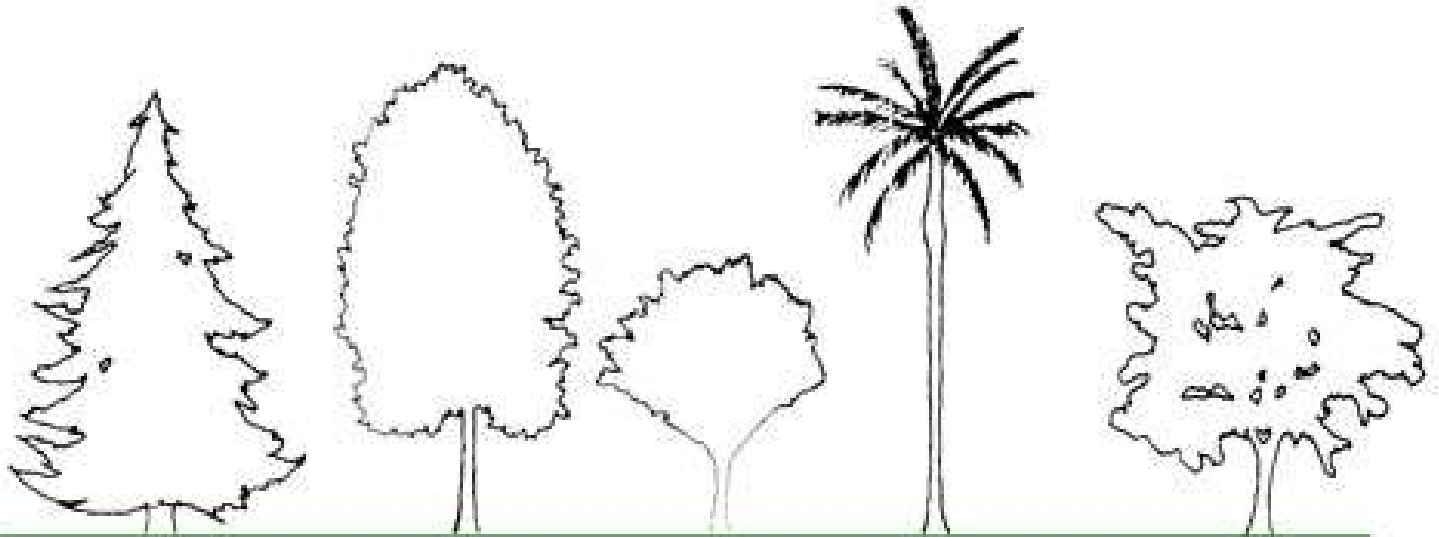


TRUNCATE

# Stem and Leaf Parts and Variations



# Tree Shapes



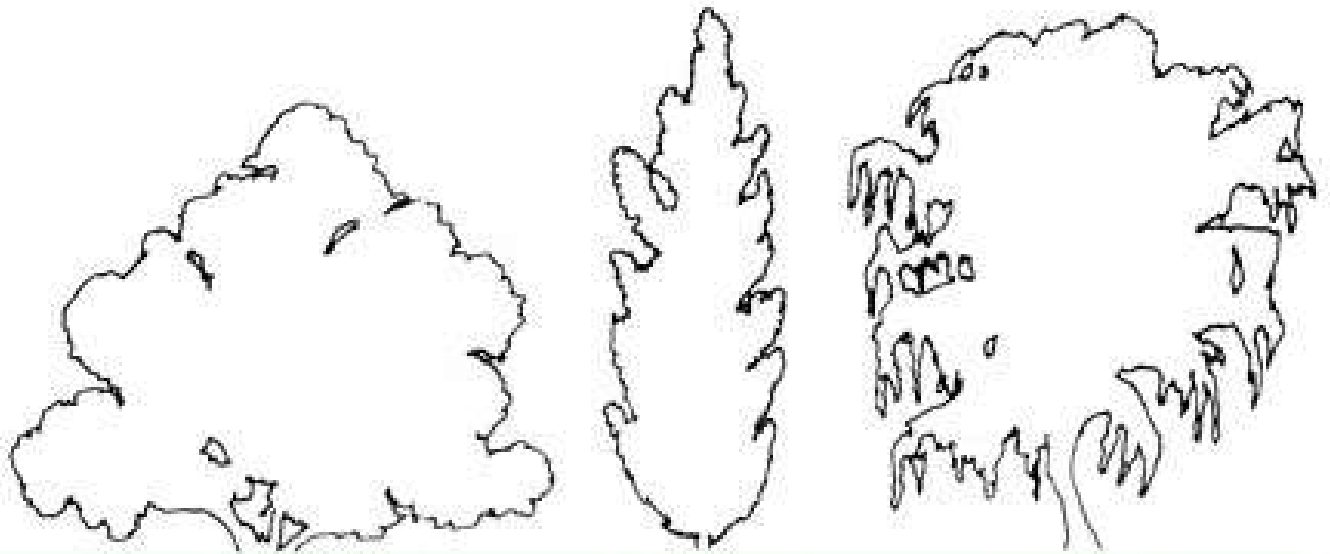
**Pyramidal**

**Full-crowned**

**Vase**

**Fountain**

**Spreading**



**Layered**

**Columnar**

**Weeping**