BOTONY, PLANT PHYSIOLOGY AND PLANT GROWTH
LESSON 4 - PLANT PARTS AND FUNCTIONS

PART 2 - LEAVES
Plant Parts and Functions, Part Two – Leaves

- Segment One - Leaf Parts and Their Functions
- Segment Two – Leaf Characteristics
- Segment Three – Leaf and Flower Buds
Segment One

Leaf Parts and Their Functions
Broadleaf and Conifer Leaves
Leaf Cross-Section

stoma

guard cell

epidermal cells

$\text{CO}_2$
Leaves as Food
Modifications of Leaves

Tendril

Bracts

"True" flowers

Bracts

Photo courtesy of Pat Breen, Oregon State University
▪ Shape of leaf blade
▪ Leaf arrangement
▪ Pattern of veins
Types of Venation

- parallel
- pinnate
- palmate

net-veined or reticulate-veined
Leaf Shape

simple

compound
Leaf Arrangement Along Stem

opposite

alternate
Do animals grow all their lives?

Do plants grow all their lives?
Buds as Food

Savoy cabbage
Review

Plant Parts and Functions, Part Two – Leaves

- Segment One - Leaf Parts and Their Functions
- Segment Two – Leaf Characteristics
- Segment Three – Leaf and Flower Buds
Review

leaf blade
midrib
petiole
Review

Shape of leaf blade
Leaf arrangement
Pattern of veins
Review

terminal bud

axillary bud

adventitious bud (not shown)
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