

Seed Plants

What You'll Learn:

Identify the characteristics of seed plants.

Explain the structures and functions of roots, stems, and leaves.

Describe the main characteristics and importance of gymnosperms and angiosperms.

Compare the similarities and differences between monocots and dicots.

Characteristics of Seed Plants

*They have roots, stems, leaves, a vascular system, and produce seeds which contain an embryo and stored food.



Leaves

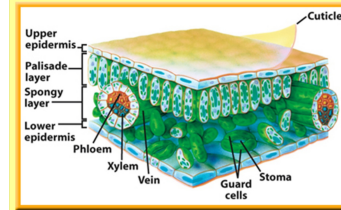
*The leaf is where photosynthesis takes place.



Leaf Cell Layers

*Epidermis protects and prevents water loss.

*Palisade contains chloroplasts.



*Spongy layer contains veins, air, and loosely packed cells.

Stems

*Provide support and move materials throughout the plant.

*Two types are herbaceous (green stem) and woody (wood stem).



Roots

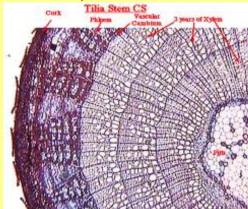
*Absorb raw materials, store food, and anchor the plant.

*Are usually the largest part of the plant.



Vascular Tissue

*Is made of three layers xylem (carry material up) phloem (move food), and cambium (create vascular tissue).



Gymnosperms (Evergreen)

*Have needle like leaves, produce seeds without fruit, and do not have flowers.



Angiosperms

*Have flowers and produce seeds surrounded by fruit.

*Two groups of angiosperms are:

monocots- produce fruit with one seed (petals arranged in multiples of 3)

dicots- produce fruit with two or more seeds (petals arranged in multiples of 4 or 5)



Life Cycles of Angiosperms

*Annuals complete their life cycle in one year. (must be replanted each year)

*Biennials complete their life cycle every two years. (produce fruit the second year)

*Perennials produce seeds and fruit year after year.

Importance of Seed Plants

***You eat and use seed plants every day. Most of the food you eat and the clothes you wear come from seed plants.**

