

New Terms - The Plant Kingdom

cotyledon -	first leaves to appear during germination which store the nutrients for germination.
monocot -	term used to describe plants that have one cotyledon - grasses and lilies
dicot -	term used to describe plants that have two cotyledons - beans
pollen -	male gametes produced by plants in the anther
ovary -	site in flowering plants which encloses the ovules and is where fertilization takes place.
pistil -	flask-shaped female reproductive unit in a flower made up of the stigma and the style.
stigma -	the sticky upper part of the pistil where pollen is deposited during pollination
style -	a narrow stalk that connects the stigma to the ovary
stamen -	the male organ in flowering plants consisting of the anther and a stem-like filament.
anther -	part of the stamen that produces pollen
petals -	colorful structures of the flower that are used to attract other organisms to help in pollination.
sepal -	a ring of adapted leaves that protect the flower as a bud
angiosperm -	literally means protected seed; refers to the flowering plants, the most developed and complex of the plant kingdom.
gymnosperm -	literally means naked or unprotected seed; refers to the conifers - pine trees, cedars, and redwoods.
ferns -	seedless plants; have fronds rather than leaves
frond -	the equivalent of leaves for a fern
cone -	the male or female reproductive organ of the conifers - like pine cones - they produce the pollen and ovules for the conifers.
conifer -	tree or shrubs in northern temperate climates like spruces, pine trees, and cedars. Most of them produce male and female cones.
sori -	small cases on the under side of fern fronds that store the spores produced by the fern.
xylem -	the specialized tissue in vascular plants carries water and minerals up the plant for photosynthesis; is the part of the plant that becomes wood.
phloem -	the specialized tissue in vascular plants which carries sugars and other

nutrients throughout the plant - carries the products of photosynthesis to different parts of the plant; combines with cork during growth to become bark.

- stomata** - small openings in the dermal tissue which allow oxygen, carbon dioxide, and water to enter and leave the plant.
- guard cells** - surround the stomata and regulate the opening and closing of the hole
- meristemic tissue** - growth tissue - plants grow where this tissue is found
- apical meristem** - is found at the tips of roots and stems and helps plants grow up from the ground, and helps the roots penetrate deeper in the soil.
- lateral meristem** - is used for plants that grow larger and thicker - responsible for lateral growth
- root cap** - protective covering on tips of roots to help them penetrate deeper
- palisade cells** - cells which contain chloroplasts directly under the epidermal layer in vascular plants.
- epidermal layer** - contains waxy cuticle covering for protecting the plant
- spongy mesophyll** - found beneath the palisade cells and is made of loosely packed cells containing chloroplasts.
- rhizoids** - root-like structures in nonvascular plants (mosses)
- nonvascular plants** - plants that have no specialized tissues for transporting fluids
- vascular plants** - have specialized tissues for transporting fluids (xylem and phloem)
- autotrophic** - term used to describe organisms that are able to produce own food
- chlorophyll** - pigment in plants that absorbs the energy from the sun for photosynthesis
- alternation of generations** - term used to describe the life cycle of a plant as it changes from a haploid (gametophyte) generation to a diploid (sporophyte) generation.
- gametophyte generation** - the haploid generation of plants
- sporophyte generation** - the diploid generation of plants
- archegonia** - site in plants where egg cells are produced
- antheridia** - site in plants where sperm cells are produced