Chapter 29
characteristics of Kingdom Plantae
meristems
alternation of generation life cycle
spores
sporangium
gametangium
arachegonium
antheridium
zones of a meristem
localized growth
green algal relationship to terrestrial plants
three informal groups of plants
Formal (taxonomic) groups
•  **Bryophytes**
  –  Phylum Hepatophyta – liverworts – 9,000 spp.
  –  Phylum Anthocerophyta – hornworts – 100 spp.
  –  Phylum Bryophyta – mosses – 15,000 spp.
•  **Seedless Vascular Plants**
  –  Phylum Lycophyta – club mosses – 1,200 spp
  –  Phylum Monilophyta
    ferns – 11,000 spp
    whisk ferns – 12 spp.
    horsetails – 900 spp.
•  **Seed Plants (gymnosperms and angiosperms)**
  –  Phylum Gnetophyta – gnetophytes – 75 spp.
  –  Phylum Ginkgophyta – ginkgo tree – 1 sp.
  –  Phylum Coniferophyta – conifers – 600 spp.
  –  Phylum Anthophyta – flowering plants – 250,000 spp.

Know the characteristics of each informal group and of each phylum
Understand the life cycles and the role of vascular tissue and water in the life cycles
  Liverwort life cycle
  Moss life cycle
  Fern life cycle
  Sporophyte-seta-foot-capsule
crosiers/fiddleheads
rhizome vs rhizoid
fronds of fern
sorus
protonema
dichotomous branching
homospory vs. heterospory
Chapter 30
evolution of seed
removal of water from life cycle
ovule
integument
ovary
fruit
seed coat
mega/microspores
mega/microgametophytes
why are seeds reproductively superior to spores??
gymnosperms vs angiosperms
know the characteristics of the phyla discussed and the life cycles
cones
needles as water conservation adaptation
sporophyll
pollen grain
parts of a common flower
dispersal of seeds
fruits
life cycles (again!!!)
double fertilization
pollination mechanisms
coevolution
Know the characteristics of the two classes of the Phylum Anthophyta
monocotyledons vs. eudicotyledones
benefits of flowering plants
Chapter 35
tissue vs organ
shoot system
root system
see figure 35.2 for overview
taproot system, fibrous root system
adventitious roots
root hairs
root modifications
stems - buds apical and lateral
stem modifications
leaves and form=function for photosynthesis
types of leaves - simple or compound types
leaf modifications
basic plant tissue types and functions of each
parenchyma, sclerenchyma, collenchyma
xylem
phloem
primary vs secondary growth in plants
know all of the parts of the stem, root and leaf discussed in class (external and internal)
wood
bark
vascular cambium
cork cambium
heartwood vs. sapwood