

SUPPLEMENTAL INSTRUCTION FOR SURVEY OF BIOLOGY by Richard X. Thripp

Week 13, Fall 2009, Nov 24 / 25. Plants and Fungi Move onto Land ch. 16. daytonastate.org/biology

- 1.) Beginning with bryophytes (mosses) in Kingdom Plantae, the _____ is retained in the mother and a _____ cuticle prevents water loss. The preceding green _____ (Protista) performed photosynthesis and nutrient absorption underwater (water, CO₂, and minerals).
- 2.) Mosses (bryophytes) and ferns (pteridophytes) have _____s to make flagella for sperm.
- 3.) Gymnosperms (conifers) and angiosperms (flowering plants) make seeds and _____ grains.
- 4.) Mosses have two generations: the larger (dominant) photosynthetic plant called the _____ phyte which makes _____s (haploid / 1N) by mitosis, and the smaller _____ phyte which makes _____s (diploid / 2N) by meiosis.
- 5.) With ferns, the sporophyte (2N) generation is dominant (larger) and the _____ phyte is small.
- 6.) Seed plants (_____sperms and _____sperms) have a reduced gametophyte generation dependent on the larger sporophyte generation, i.e. a _____ phyte (2N) pine tree with small pine cones containing male and female _____ phytes (1N).
- 7.) Ferns are seedless _____ plants. They were the first plants to evolve a vein system.
- 8.) Bryophytes (mosses) are small because they are ___vascular, meaning they lack a vein system.
- 9.) Place these Plantae in order of evolution #1 through #4:
#___ Angiosperms #___ Bryophytes #___ Gymnosperms (conifers) #___ Seedless vascular plants
- 10.) Corn, rice, and wheat are _____, which are flowering plants.
- 11.) In flowers, the _____ makes pollen. The ovule develops into a _____.
- 12.) Angiosperms have seeds enclosed in a fruit, a ripened _____. (Gymnosperms have naked seeds.)
- 13.) _____ are chemoheterotrophs: they digest (decompose) their food externally and absorb it.
- 14.) Fungi are closer to humans/animals than _____s. _____s are microscopic fungi.
- 15.) _____ carry water from roots to leaves and _____ carries sugar from leaves to roots in vascular plants.