Fungi Review p. 545

1. A 2. B 3. C 7. C

11. The cells of fungi are similar to the exoskeletons of insects because they both contain chitin.

12. Hyphae are tiny filaments that are only one cell thick, whereas a mycelium is a thick mass composed of many hyphae tangled together.

14. Many fungi produce dry, almost weightless spores, which scatter easily in the wind. Other fungi are specialized to attract animals, which disperse spores.

15. Spores must land in a favorable environment. There must be a proper combination of temperature, moisture and food.

20. Many species of poisonous mushrooms look just like edible mushrooms.

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1. B 5. D 6. B 7. A 9. C

14. Because they lack vascular tissue, bryophytes draw up water by osmosis.

15. Bryophytes depend upon the presence of water to complete their life cycle, because the only way sperm can reach the egg is to swim through standing water or dew.

18. The evolution of lignin made the cell walls of plants rigid. This enabled plants to grow upright and reach great heights.

20. Rhizoids are long, thin cells that anchor bryophytes in the ground and absorb water and minerals. The water moves from cell to cell through the rhizoids to the rest of the plants. Rhizomes are creeping or underground stems of ferns that survive the winter and produce new leaves in the spring. Roots are underground organs that absorb water and minerals from the soil.

22. Features of conifers that suggest they evolved to live in dry habitats include long, thin needles to reduce the surface area of their leaves; the leaves' waxy outer covering; and the replacement of leaf openings in cavities in the surface of the leaves to reduce water loss by evaporation. Also, in cold environments, the shape of the branches and needles allow snow to slide off.

23. Angiosperms contain the most living species.

24. Fruits attract and are eaten by animals that spread the seeds enclosed in the fruit widely, increasing the ranges that the angiosperms inhabit.

25. Drawings should show that monocots have leaves with parallel veins. Dicots have leaves with branched veins.

Vocabulary:

chitin
hyphae
mycelium
fruiting body
mating types (+/-)
spores
fairy ring
decomposer
parasite
mosses
ferns
gymnosperms
angiosperms
rhizoids
vascular tissue
xylem
phloem
roots
stems
leaves
veins
rhizomes
fronds
cones
flowers
embryo
pollen
seed
fruit
monocot
dicot