

CHAPTER 20

Section 1: Characteristics of Fungi

Study Guide

In your textbook, read about the characteristics of fungi.

Match the definition in Column A with the term in Column B.

Column A	Column B
_____ 1. netlike body of a fungus	A. fruiting body
_____ 2. cross-walls between fungal cells	B. hyphae
_____ 3. filaments in a multicellular fungus	C. mycelium
_____ 4. unicellular fungus	D. septa
_____ 5. fungal reproductive structure	E. yeast

In your textbook, read about nutrition in fungi.

Complete the table by checking the correct column(s) for each characteristic.

Fungi Characteristic	Saprophytic Fungi	Parasitic Fungi	Mutualistic Fungi
6. Harmful to host			
7. Helpful to host			
8. Heterotrophs			
9. Organic litter reducers			
10. Symbiosis			

In your textbook, read about reproduction in fungi.

Write the term that best completes each statement. Use these choices:

asexually meiosis sporangia survival wind

- 11.** Fungi reproduce _____ by fragmentation, budding, or producing spores.
- 12.** Producing a large number of spores increases a species' chances of _____.
- 13.** Fungal spores can be dispersed by animals, water, and _____.
- 14.** _____ protect spores and keep them from drying out until they are released.
- 15.** Fungi might produce spores by _____ or mitosis.

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Section 2: Diversity of Fungi

In your textbook, read about the diversity of fungi.

Match the definition in Column A with the term in Column B.

Column A

- _____ 1. includes bread molds and other molds
- _____ 2. appears to lack a sexual stage in life cycle
- _____ 3. produces flagellated spores
- _____ 4. most common fungi phylum; includes yeast
- _____ 5. includes mushrooms

Column B

- A. Ascomycota
- B. Basidiomycota
- C. Chytridiomycota
- D. Deuteromycota
- E. Zygomycota

In your textbook, read about reproduction in common molds.

Label the diagram of a common mold. Use these choices:

mating strains

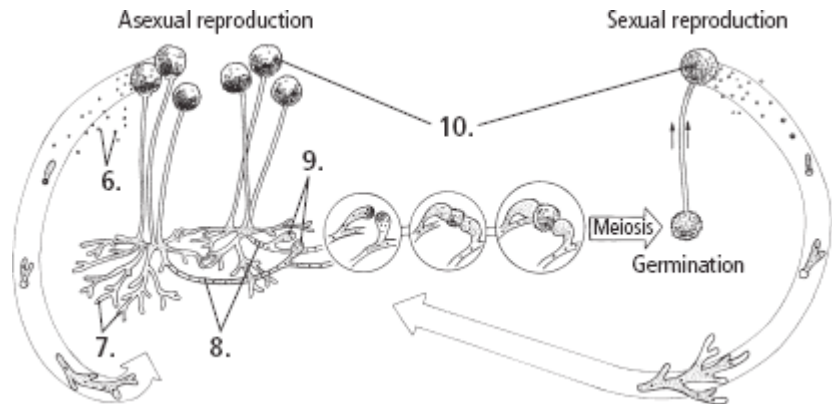
rhizoids

sporangia

spores

stolons

- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____



Use each of the terms above only once to complete the passage.

Hyphae called (11) _____ penetrate the food, anchor the mycelium, and absorb nutrients. Asexual (12) _____ germinate on a food source, and hyphae begin to grow. Hyphae called (13) _____ grow across the surface of the food source and form a mycelium. Special hyphae grow upward to form (14) _____ that are filled with asexual spores. In sexual reproduction, parts of two haploid (15) _____ fuse to form a diploid structure.

Study Guide, Section 2: Diversity of Fungi continued

In your textbook, read about sac fungi, club fungi, and other fungi.

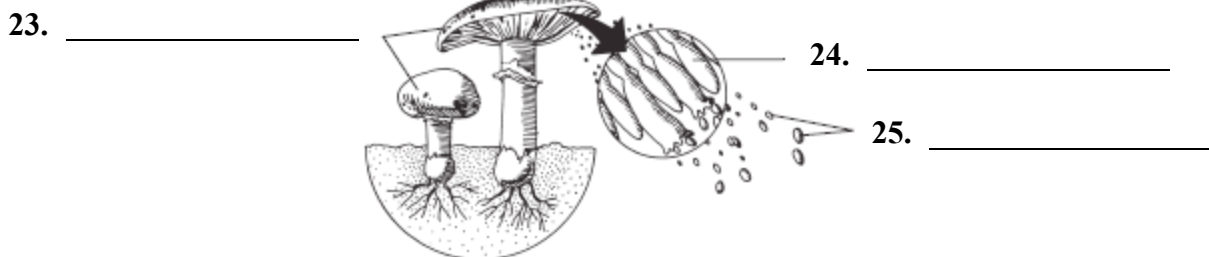
In the space at the left, write the letter of the term or phrase that best completes each statement.

- _____ 16. Most members of the phylum Ascomycota are _____
A. aquatic. **C.** multicellular.
B. molds. **D.** unicellular.
- _____ 17. Sac fungi produce spore-bearing hyphae called _____
A. ascospores. **C.** gametangia.
B. conidiophores. **D.** zygomycetes.
- _____ 18. The ascus of a sac fungus _____
A. develops into a haploid mycelium. **C.** is where the hyphae develop.
B. is a saclike structure where spores develop. **D.** produces four haploid nuclei.
- _____ 19. The fruiting body of a club fungus is called a _____
A. basidiocarp. **C.** sac.
B. gametangium. **D.** stolon.
- _____ 20. The rapid growth of basidiocarps is due to _____
A. cell division. **C.** meiotic division.
B. cell enlargement. **D.** water intake.
- _____ 21. Saprophytic basidiocarps produce enzymes that _____
A. are beneficial for plants. **C.** make bread dough rise.
B. decompose wood. **D.** suggest they are related to protists.
- _____ 22. Another name for the deuteromycetes is _____
A. club fungi. **C.** imperfect fungi.
B. common molds. **D.** sac fungi.

In your textbook, read about club fungi and the life cycle of a mushroom.

Label the diagram of the mushroom and parts of its life cycle. Use these choices:

basidium **caps** **spores**



Study Guide

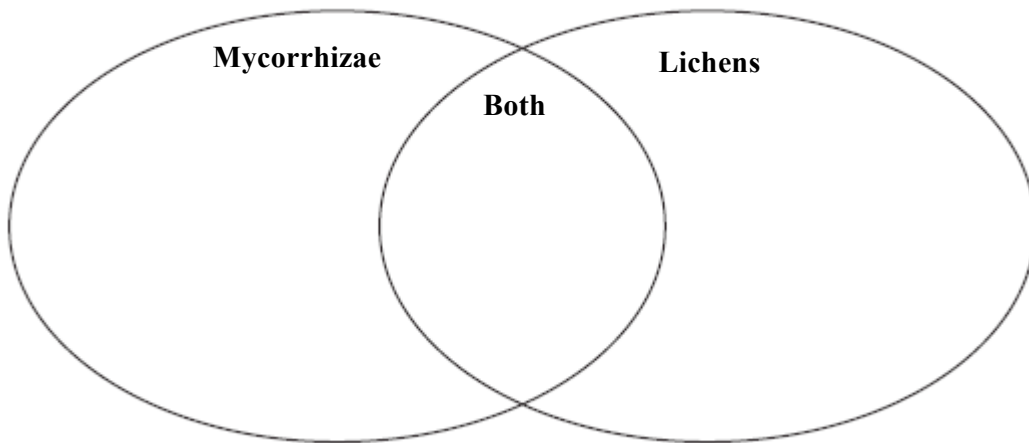
CHAPTER 20

Section 3: Ecology of Fungi

In your textbook, read about fungi and photosynthesizers.

Complete the Venn diagram by writing the number of each phrase in the appropriate place. These phrases may be used more than once.

1. associated with plant roots
2. important for soil formation
3. important for agricultural crops
4. associated with a green alga or cyanobacterium
5. obtain nutrients from photosynthesizing partner
6. mutualistic relationship between fungi and other organism
7. fungus that absorbs and concentrates minerals and increases root surface area for plant
8. fungus that provides a dense web of hyphae in which algae or cyanobacterium can grow



In your textbook, read about fungi and humans.

If the statement is true, write true. If the statement is false, replace the italicized word or phrase to make it true.

9. Penicillin is a drug that comes from a fungus. Another fungus is the source of *antiheadache drugs* for organ transplant patients.

10. People eat fungi such as truffles, mushrooms, and the yeast in bread. Fungi also give flavor to *cheeses and soda drinks*.

11. *Respiration* produces airy bread and the alcohol in beer and wine.

12. The use of fungi and bacteria to remove pollution is called *enviroremediation*.
