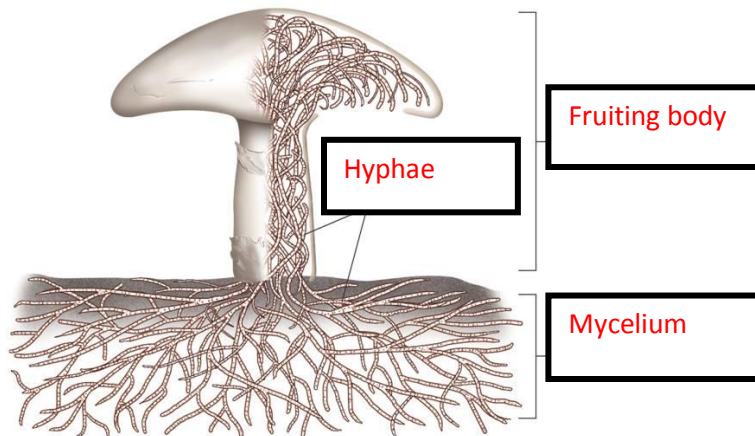


21-1 The Kingdom Fungi

1. Identify the structures.



2. True or false?

True Fungi digest food outside of their bodies.

False Most fungi reproduce only asexually.

False Sexual reproduction involves two mating types: male and female.

True Fungi are non photosynthetic.

21-2 Classification of Fungi

3. Which phylum of fungi is the largest (most numerous species)?

Ascomycota (the sac Fungi)

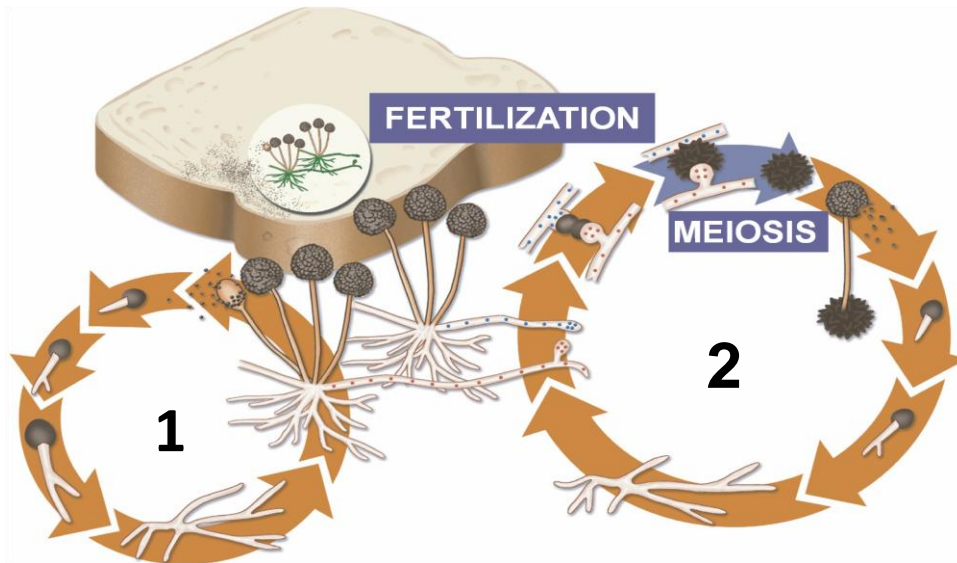
4. *Penicillium notatum* is a mold that grow on fruit and is the source of the antibiotic penicillin. Give its phylum: Deuteromycota (Imperfect fungi)

5. The bracket fungi is a Basidiomycota (club fungi) (give the phylum).

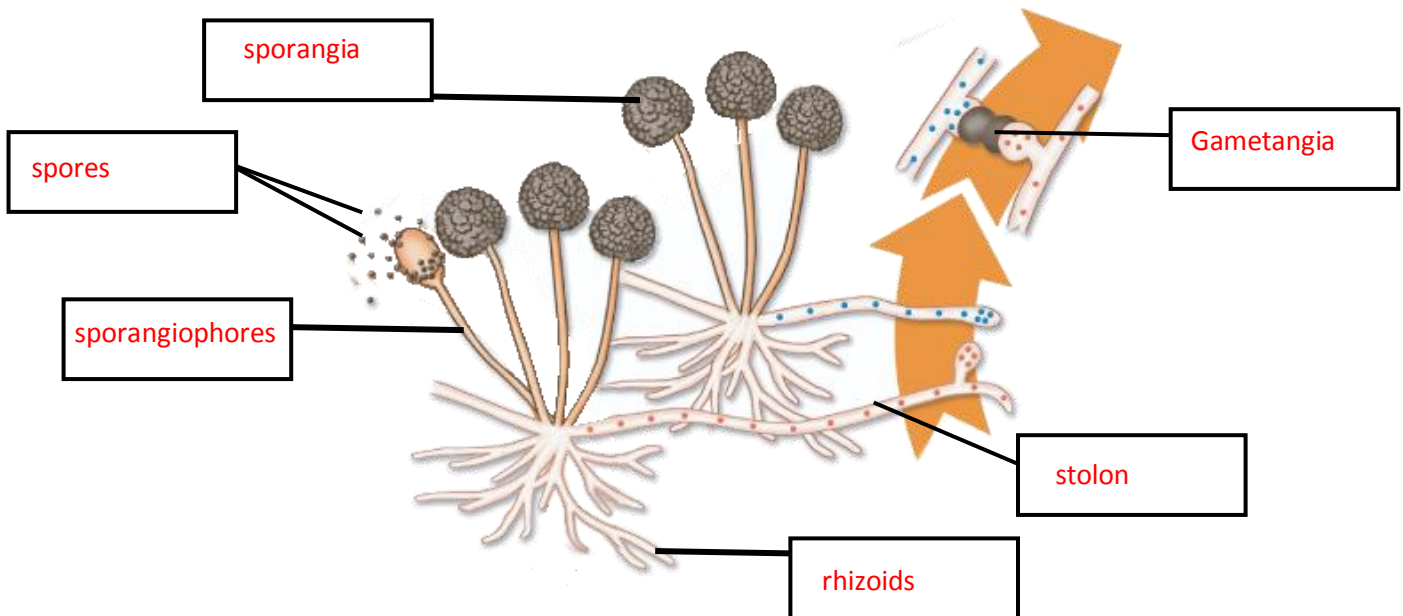
6. The following figure represents the life cycle of the black mold.

#1 represents the asexual reproduction.

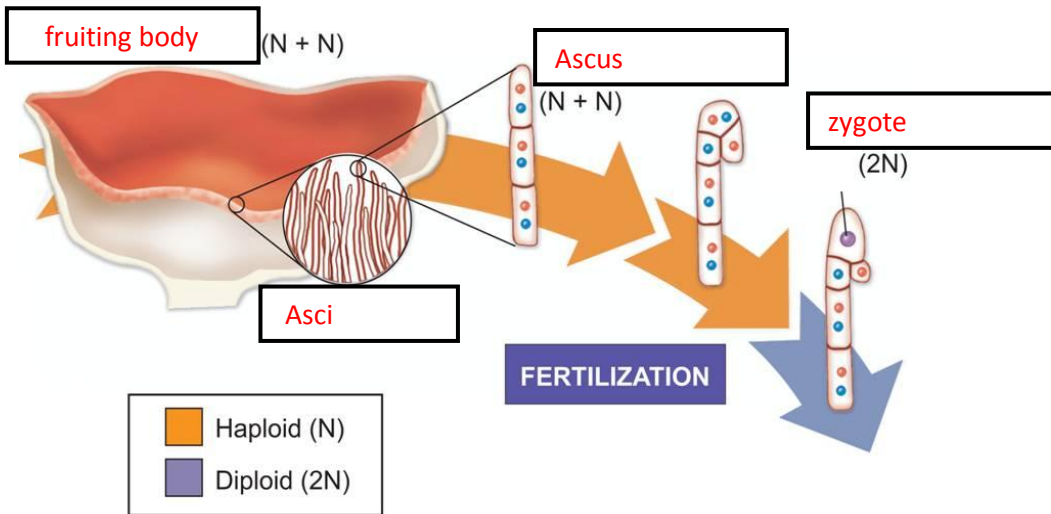
#2 represents the sexual reproduction.



7. Identify the structures of the black mold.



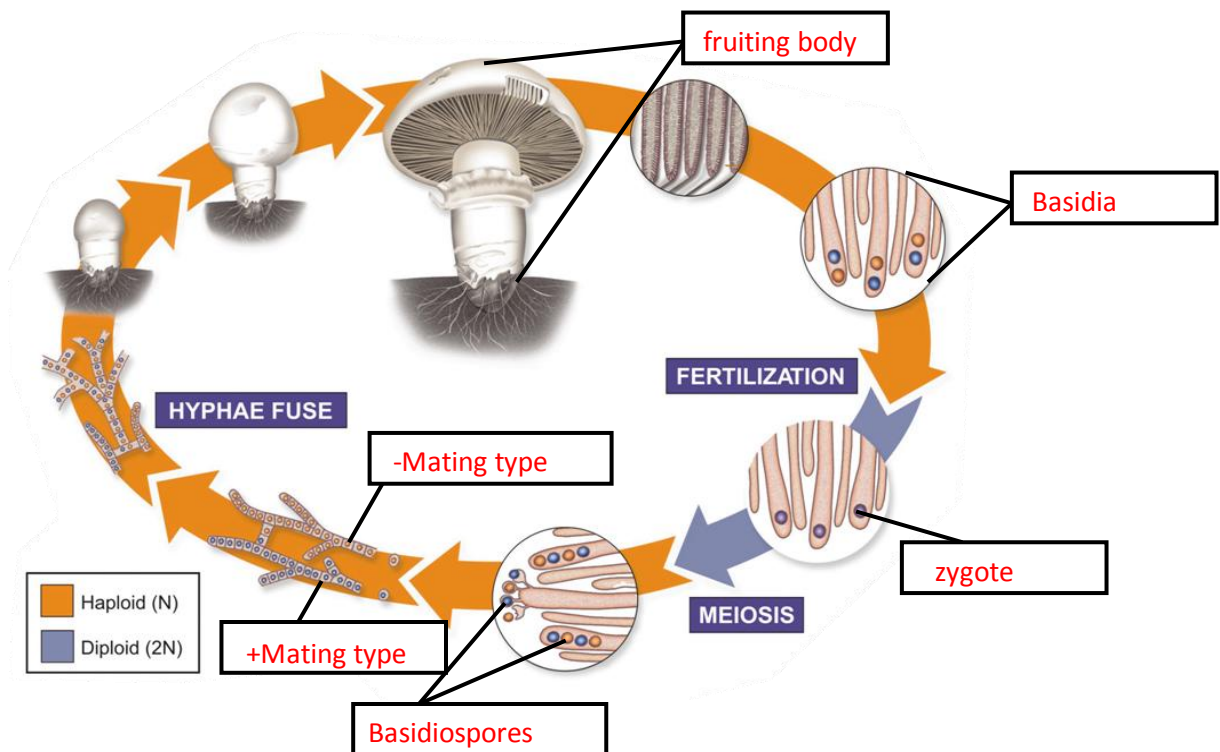
8. The following figure represents a section of the sexual reproduction of the ascomycetes. Identify the structures.



9. a) In the **sexual** reproduction of the ascomycetes, the spores are called Ascospores.

b) In the **asexual** reproduction of the ascomycetes, the spores are called Conidia.

10. The following figure represents the life cycle of the basidiomycetes. Identify the structures.



11. What do species of the phylum Deuteromycota have in common?

The Deuteromycota are fungi that cannot be placed in other phyla because researchers have never been able to observe a sexual phase in their life cycles.

21-3 Ecology of Fungi

12. Complete the sentence:

Lichen is the symbiosis between a fungi and an algae or a cyanobacteria, or both.

13. Give four examples of diseases caused by fungi.

- 1) Corn smut
- 2) Wheat rust
- 3) Athlete foot
- 4) Ringworm other possible answers

14. Give three examples of fungi uses by humans.

- 1) Yeast: baking and brewing
- 2) Antibiotics (penicillin, cephalosporin)
- 3) cheeses other possible answers

15. Why are decomposers, such as fungi, so important?

Decomposers maintain an equilibrium, they recycle nutrients by breaking down the bodies and wastes of other organisms. Without decay, the energy-rich compounds that organisms accumulate during their lifetimes would be lost forever.

16. What are mycorrhizae? How does the fungi benefit? How does the plant benefit?

It is a mutualistic relationship between fungi and plant roots. The hyphae of the fungi aid plants in absorbing water and minerals. The plants provide the fungi with the products of photosynthesis.