

Name _____

Course/Section _____

Date _____

Professor/TA _____



Activity 31.1 How diverse are the fungi in form and function?

1. a. What is the basic body plan of most fungi?

b. Which fungi do not share this basic body plan?

2. Fungi may be said to have both plantlike and animal-like characteristics. What plantlike characteristics do fungi have? What animal-like characteristics?

3. a. Into what five major phyla (or divisions) is the kingdom Fungi divided?	b. On what basis are these divisions made?

4. Is it more correct to describe a mushroom as haploid or diploid? Explain.
5. If you did not know that fungi were primarily terrestrial organisms, what structures or features of the organisms would suggest that they were terrestrial?
6. a. In what ways are fungi important in the ecosystem?
- b. In what ways are fungi important to humans?
7. Lichens are symbiotic associations of a fungus, usually an ascomycete, and an alga, usually a green algal species or a cyanobacterial species. Lichens can often survive in harsh natural environments.
- a. To what environmental conditions are lichens well adapted?
- b. What makes them so well adapted to these conditions?

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31.1 Test Your Understanding

Patients with AIDS often acquire opportunistic infections. Imagine a patient with AIDS (caused by human immunodeficiency virus) and two opportunistic infections—a respiratory disease caused by a *Mycobacterium* and another disease caused by the fungus *Candida*. As the patient's physician, you need to prescribe drugs to counteract the infections.

Given the normal anatomical and functional characteristics of each disease organism, what characteristics should a drug combination have to treat each of these three infections while doing the least harm to the patient?