

Chapter 23 Fungi

True or False

Fungi are closely related to plants

Fungi are economically valuable.

Many fungi are beneficial to other organisms.

Where have you seen fungus grow?

Some of the most unusual organisms that
exists are in this _____

Some grow so fast they can appear

First grouped with plants
because they are _____,
have a cell wall, and in _____



Clockwise from top left:

Amanita muscaria, a basidiomycete;

Sarcoscypha coccinea, an ascomycete;

bread covered in mold;

a chytrid;

an *Aspergillus* conidiophore.

<http://en.wikipedia.org/wiki/Fungus>

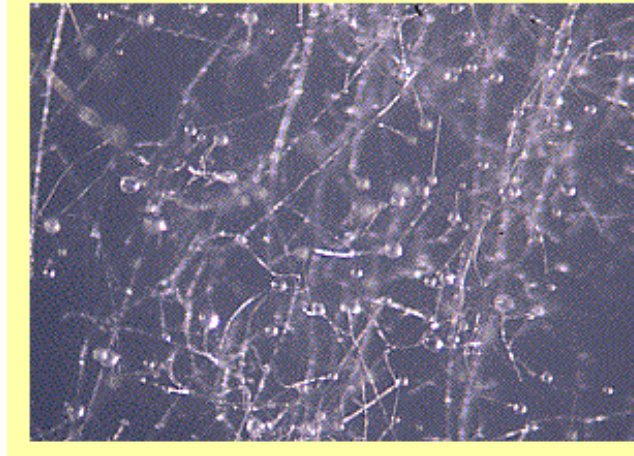


Characteristics of Fungi

Fungi are heterotrophic-
they do not contain _____.

They obtain energy by breaking down
_____ molecules that they absorb from
their environment

**Fungi have filamentous bodies-
they are made of long slender**



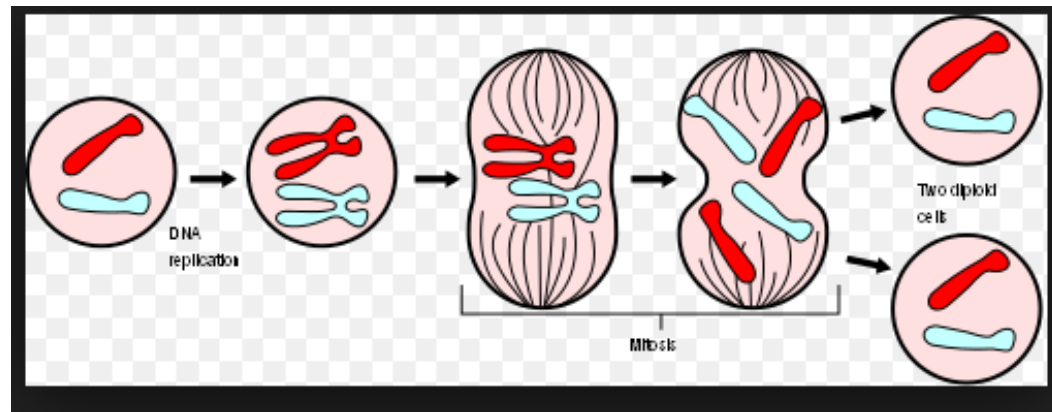
<http://www.ucmp.berkeley.edu/fungi/fungimm.html>



Fungal cell contain chitin- chitin is a tough polysaccharide found in the shells of _____.

Plants cells are made of _____ not polysaccharide.

Fungi exhibit nuclear mitosis-
the _____ membrane does not
disappear so chromosomes are
dragged to sides of the _____
not the cell.



http://www.diffen.com/difference/Meiosis_vs_Mitosis



Fungi are well suited for absorbing _____



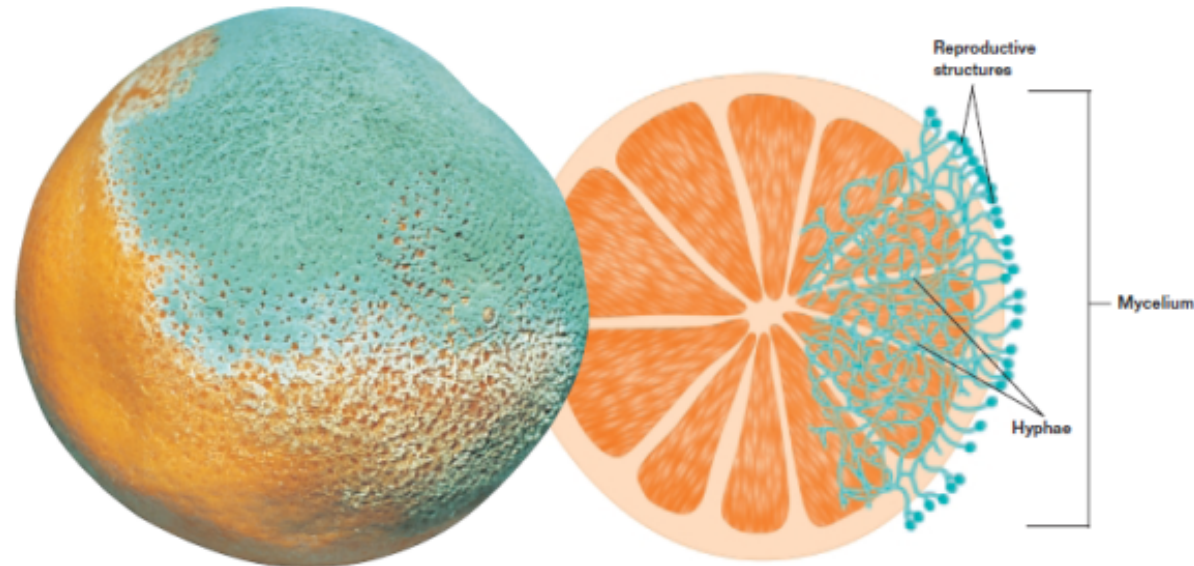
<http://en.wikipedia.org/wiki/Fungus>



Bracket fungi on dead log



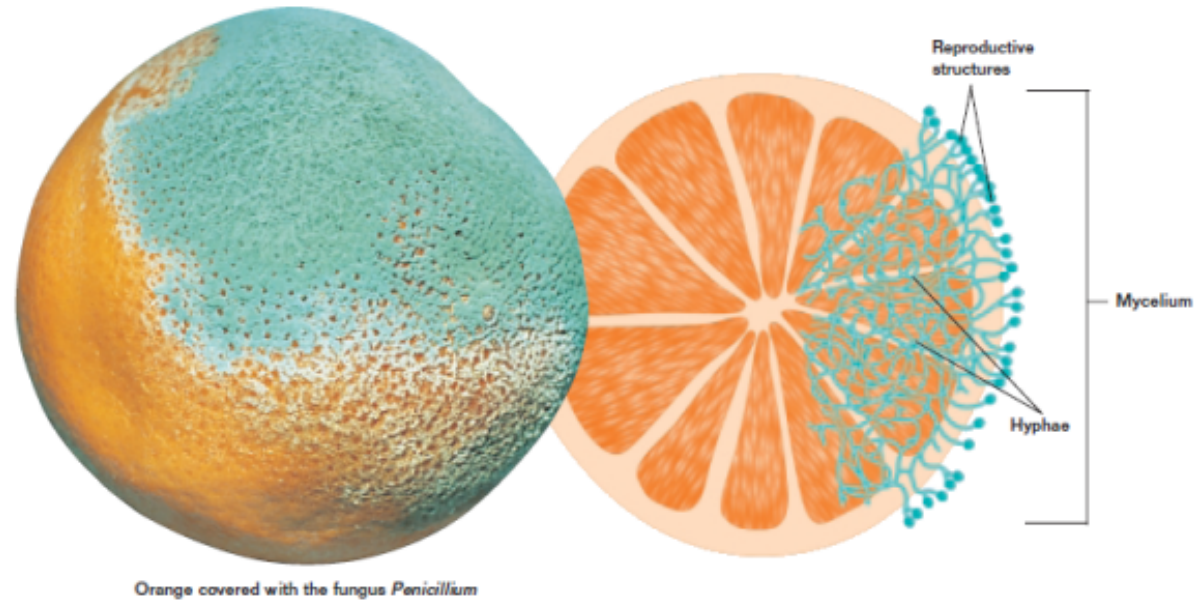
The green and white fuzz is actually the reproductive _____ of the fungus. The _____ of the fungus is inside the orange.



Orange covered with the fungus *Penicillium*

Hyphae- slender _____ in the bodies of fungi

Mycelium-mass of hyphae that form the body if _____



This high surface area to volume ratio makes to best for absorbing _____.

How fungi absorb nutrients.

They secrete _____ enzymes that
break down organic matter in their
_____.

They can decompose things like leaves, _____, dead animals, and waste

They are recyclers but some are also parasites that live on hosts live



<http://medicallywiseinfo.com/2010/131/ringworm.html>



They can cause things like _____
foot and _____ infection



http://commons.wikimedia.org/wiki/File:Severe_athletes_foot.JPG



Bread fruit, vegetables and meat are as _____ as a log. They will also attack paper, _____, cloth, paint, and leather.



<http://moldremediation101.com/types-of-mold/>



Unicellular fungi called _____ are useful in baking, brewing, and wine making.

They are also used in making _____ and in making penicillin.



<http://www.cookingforengineers.com/article/213/Bakers-Yeast>



Fungi reproduce _____ and
_____.

They release spores formed sexually and asexually. The reproductive spores grow _____ the food source so the air can spread them. They can remain in the air for a long time.

What are all the different ways that organisms are classified?

Fungi are _____ by their sexual reproductive structures

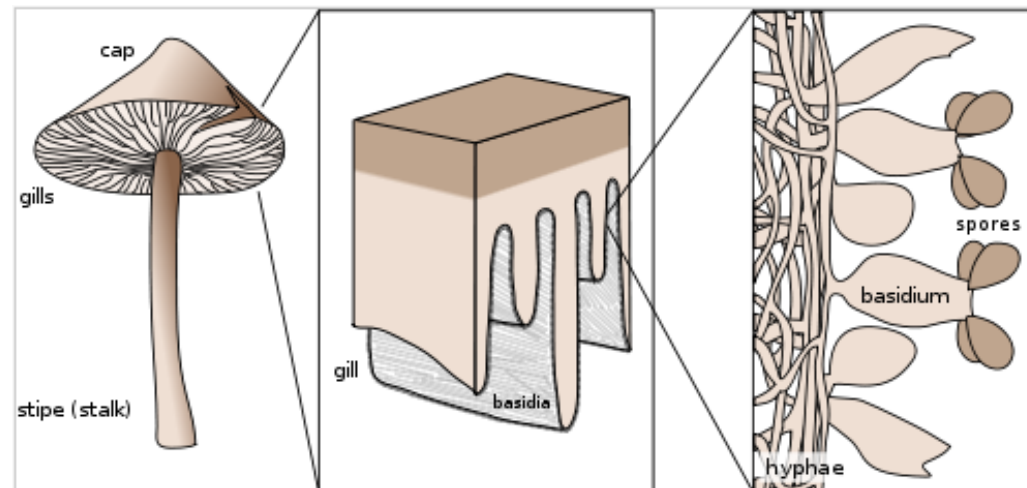
Asexual reproduction

Deuteromycetes- group of fungi with no sexual stage seen

This includes things like *Penicillium* (makes penicillian), and *Aspergillus* (which makes _____ sauce) Also cause things like athlete's foot and ringworm.

This is the group for _____ bread mold.

Basidium- the club shaped sexual
_____ structure for which this
group is names.



<http://en.wikipedia.org/wiki/Basidium>



Fungi form symbiotic relationships with plant roots

Mycorrhizae

A type of mutualistic relationship formed between fungi and _____ plant roots



<http://www.finegardening.com/how-to/articles/mycorrhizae-help-feed-your-plants.aspx>



Hyphae transfers phosphorus and other materials from the soil to the roots of the plant and the plant gives carbohydrates to the _____

Fungi form symbiotic relationships with _____

Lichen- symbiosis between a fungus and a photosynthetic _____ like green alga, a cyanobacteria, or both



Lichen-covered tree: Grey, leafy *Parmotrema perlatum* on upper half of trunk; yellowy-green *Flavoparmelia caperata* on middle and lower half and running up the extreme right side; and the fruticose *Ramalina farinacea*. Treco, Isles of Scilly, UK

<http://en.wikipedia.org/wil>

