

# KINGDOM FUNGI

## Common Examples of Fungi:

- Mold
- Mildew
- Mushrooms
- Yeast

\* Not considered a plant because they do not contain chlorophyll and do not do photosynthesis.

Kingdom Fungi Basic Characteristics
1) Multicellular (all except yeast)
2) Heterotrophic (Decomposers)
3) Eukaryotic
4) Cell Wall Containing <u>Chitin</u>

Saprophyte - feeds on dead and decaying material. ex: mushroom

Some fungi are parasites - live on living material ex: athlete's foot

## Basic Vocabulary

Hyphae - tiny filaments that are only one cell thick; they may or may not have cross walls



Mycelium - a mass of hyphae; located underground

Fruiting Body - top portion of fungus that is located above ground; it is still made up of hyphae internally.

\* Fungi are classified based on the type of spores (how fungi reproduce)

Phylum Zygomycota	Phylum Ascomycota	Phylum Basidiomycota	Phylum Deuteromycota
<ul style="list-style-type: none"> <li>produce zygospores</li> <li>ex: bread mold</li> <li>rhizoids - roots that anchor mold</li> <li>stolon - stems that spread mold along surfaces</li> </ul>	<ul style="list-style-type: none"> <li>produce ascospores</li> <li>ex: yeast, mildew, cup fungus</li> <li>"Sac Fungi"</li> </ul>	<ul style="list-style-type: none"> <li>produce basidiospores</li> <li>ex: mushrooms, shelf fungi, rusts and smuts</li> <li>"Club Fungi"</li> </ul>	<ul style="list-style-type: none"> <li>produces no spores</li> <li>no sexual reproductive structures, only asexual phases</li> <li>ex: orange "mold" <u>Penicillium</u></li> </ul>

• have sexual and asexual alternation of generations using spores

## Digestion in Fungi:

- is called extracellular, meaning "outside the cell"
- they do not take food into their bodies to eat it, but they secrete digestive enzymes onto their food, dissolve it, and then absorb the dissolved food into their hyphae.

## Ecological Importance

- Symbiotic Relationship with a Photosynthetic Organism - Lichen - between an algae or cyanobacteria and a fungi - serves as a pioneer species
- Symbiotic Relationship with Plants - Mycorrhizae - mutualistic relationship between a plant and a fungus

## Structure of a Mushroom

