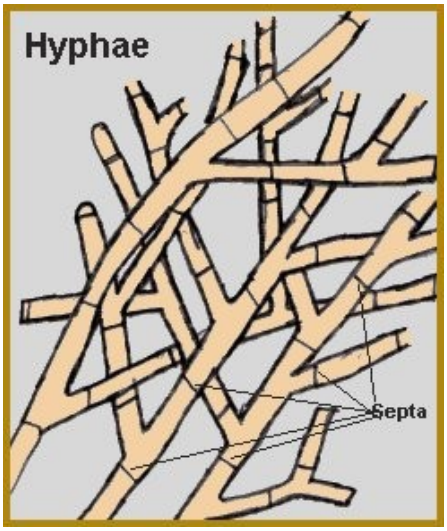
Biology
Notes: Fungi



- **Basic characteristics of fungi:**
  - *mycelium:* a complex network of branching hyphae; may serve to anchor the fungus, invade food sources, or form reproductive structures.
  - *hyphae:* threadlike filaments that are the basic structural units of multicellular fungi.
  - *chitin:* complex carbohydrate that makes up the cell walls of fungi.
  - *septa:* cross walls that divide hyphae into individual cells that that contain on or more nuclei.

- **Nutrition of fungi:**
  - *saprobes*: live off of dead materials.
  - *parasitic*: live off of live organisms.
  - *symbiotic*: (mutualistic) lichens - example: bacteria and fungus.

  * How do they obtain nutrients?
    Like bacteria, they attach themselves to an organism and secrete enzymes that cause materials to digest.

- **Reproduction:** Asexual vs. Sexual

  1.) Asexually: fragmentation where pieces of mycelium break off which then allow remains to become their own.

  2.) Sexually: spores don't have male or female organs that involve the production and subsequent fusion of haploid sex cells.

- **Diversity of Fungi**:

1.) Division of Zygomycota:
  - Example: breadmold (black)
  - Includes 600 species

2.) Division Ascomycota:
- Examples: truffles, morels, and yeasts
- Includes 30,000 species

3.) Division Basidiomycota:
- Example: shelffungi
- Includes 25,000 species

4.) Division Deuteromycota:
- have known sexual stage in their life cycle and may only be able to reproduce asexually