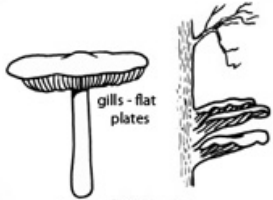
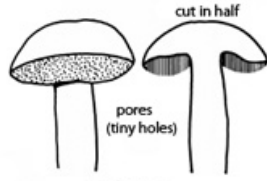


# Madison Mycological Society Macrofungi Primer

## Form Groups



Gilled Fungi



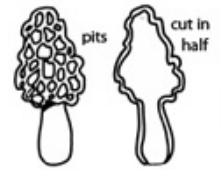
Boletes



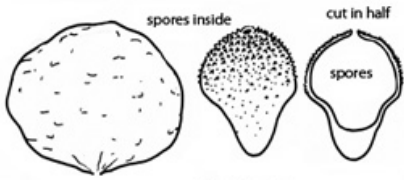
Cup fungi



False Morels



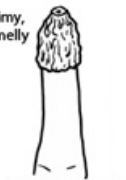
True Morels



Puffballs



Earthstars



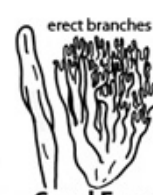
Stinkhorns



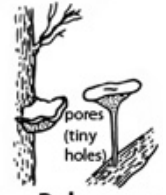
Teeth Fungi



Chanterelles

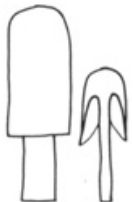


Coral Fungi

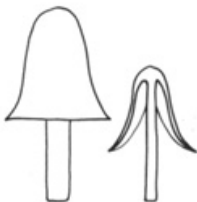


Polypores

## Cap Morphology



Cylindrical



Bell-shaped (campanulate)



Conical



Convex



Flat (plane)



Infundibuliform (deeply depressed)



Depressed

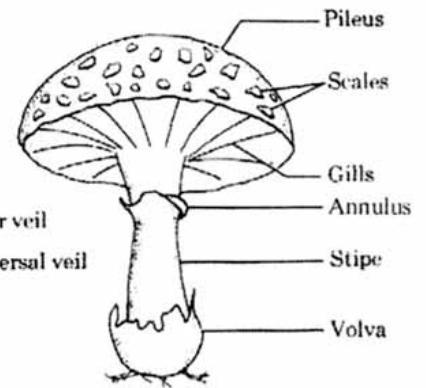


Knobbed (umbonate)



Context

Inner veil  
Universal veil



Pileus

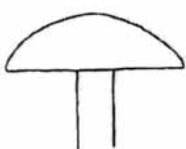
Scales

Gills

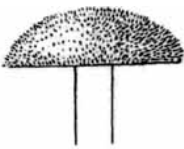
Annulus

Stipe

Volva



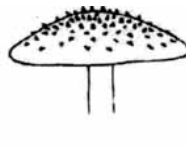
smooth



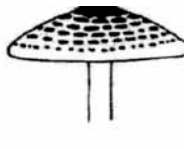
velvety



hairy or fibrous



raised scales



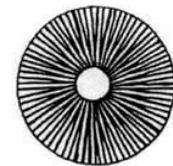
flat scales



patches



crowded



close



distant



attached (adnate)



attached (adnexed)



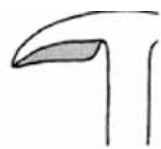
attached (notched)



seceding

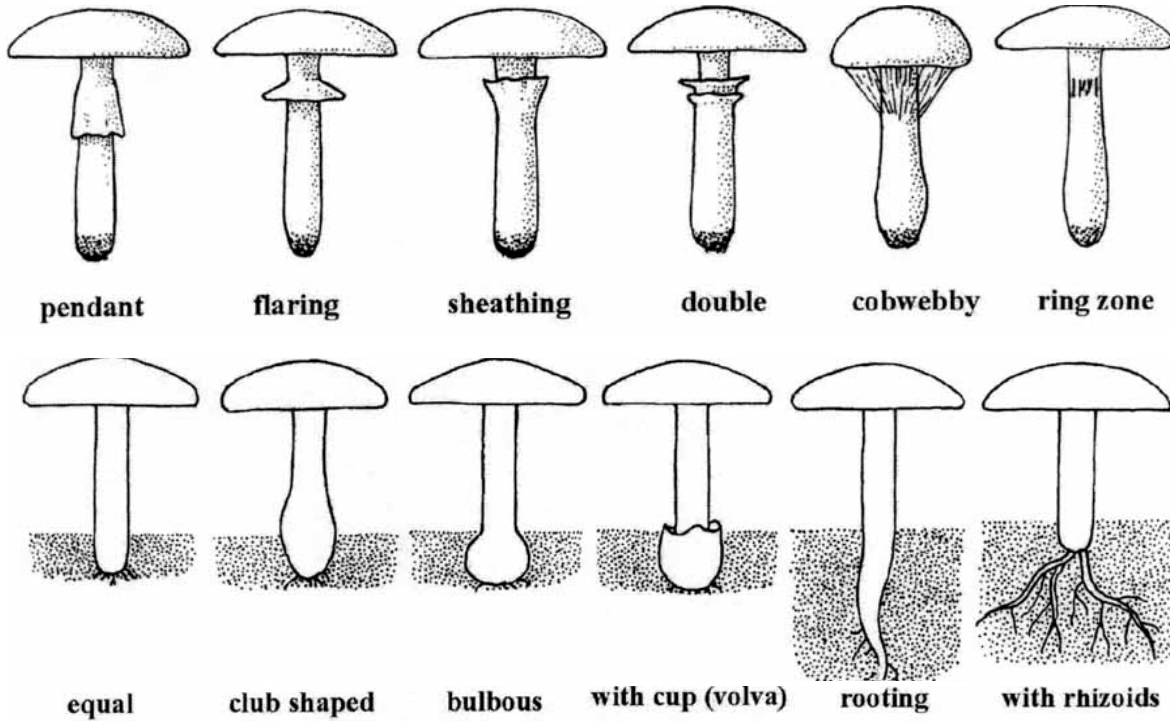


descending



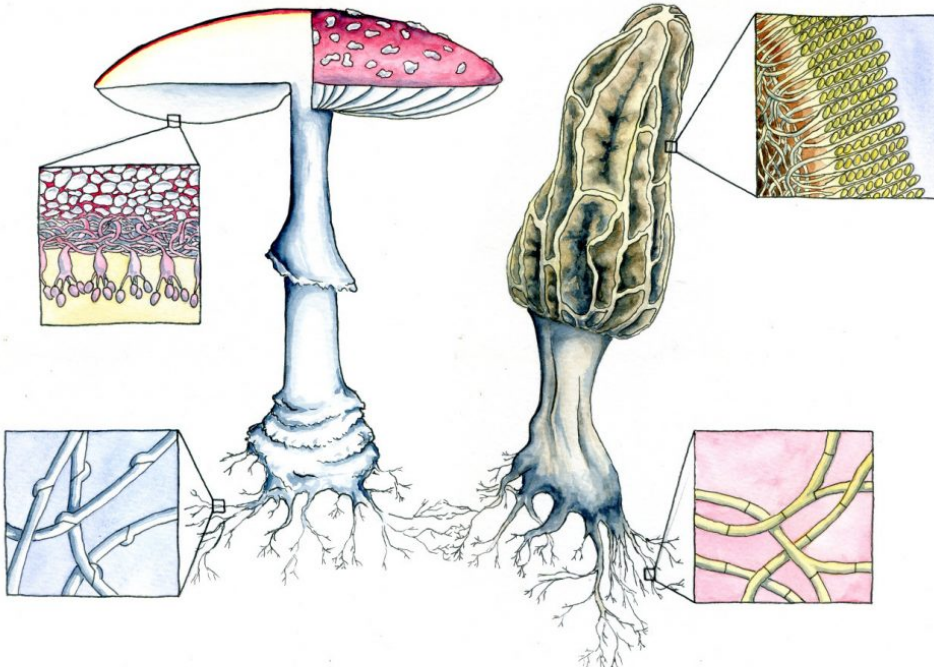
free

## Stem Morphology



### Phylum Basidiomycota (basidia)

### Phylum Ascomycota (asci)



### Modes of Nutrition

#### Saprobic

Brown rot – cellulose, not lignin  
White rot – cellulose and lignin  
Soft rot – attack wood with high moisture, low lignin content

#### Mutualistic

Arbuscular mycorrhizae  
Ectomycorrhizae  
Ericoid mycorrhizae  
Orchid mycorrhizae  
Dark septate endophytes  
Foliar endophytes

#### Parasitic

Entomopathogenic fungi  
Plant pathogens  
Human pathogens, etc.

A fungus can transition between various lifestyles

## Resources and Further Reading

- o [madisonmycologicalsociety.com](http://madisonmycologicalsociety.com), [mushroomobserver.org](http://mushroomobserver.org), or [iNaturalist.org](http://iNaturalist.org)
- o [mushroomexpert.com](http://mushroomexpert.com) by Michael Kuo – most useful mycology resource on the web
- o *Fascinating Fungi of the North Woods* (2012) by Cora Mollen and Larry Weber
- o *Mushrooms of the Midwest* (2014) by Michael Kuo
- o *Ascomycete Fungi of North America* (2014) by Michael Beug, Alan Bessette, and Arleen Bessette
- o *Boletes of Eastern North America* (2016) by Alan Bessette, William Rood, and Arleen Bessette

