

Life Cycles of Eukarya

FUNGI	PLANTAE	ANIMALIA
<p>General Characteristics of the Cycle</p> <p>multinucleated phase "unusual" life cycle</p> <p>Phyla Classified based on this stage = fruiting body = "mushroom"</p>	<p>"Alternation of Generations"</p>	<p>"Diploid Dominant"</p>
<p>The Cycle:</p>		
<p>Other Notes:</p> <p>- has both a sexual and a sexual part of it's cycle</p>	<p>- evolutionary trend towards Sporophyte (diploid) dominant reproductive cycles</p> <p>- asexual cycles do exist also but only some species</p>	<p>- asexual cycles in some but not all species</p>

Terms to Know

Haploid 1N one "set" of chromosomes

Diploid 2N two "sets" of chromosomes
↳ homologous pairs

Gamete 1N • haploid sex cell
• single cell

Spore 1N haploid cell that through mitosis grows into a multicellular gametophyte

Mitosis "exact copy" cell division
 $1N \rightarrow 1N$ or $2N \rightarrow 2N$

Meiosis "reductive" cell division
 $2N \rightarrow 1N$

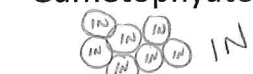
Zygote 2N diploid cell that goes through mitosis and grows into a multicellular sporophyte or adult
• single cell

Fertilization when two gametes fuse into a zygote
 $1N + 1N \rightarrow 2N$

Sporophyte 2N



Gametophyte 1N



Plasmogamy



Heterokaryotic cell



Karyogamy

multicellular diploid that produces haploid spores via meiosis ($2N \rightarrow 1N$)

multicellular haploid that produces haploid gametes via mitosis ($1N \rightarrow 1N$)

fusion of 2 cells cytoplasm but not nuclei

fusion of nuclei

Instead of fertilization in Fungi!