

Plants 1

- send answer to iClicker Question 11A now.
- Exam 1 comments
- plant phylogeny/history
- life cycles
 - definitions & processes
 - animals vs. plants
 - genetics
- iClicker Question 11B

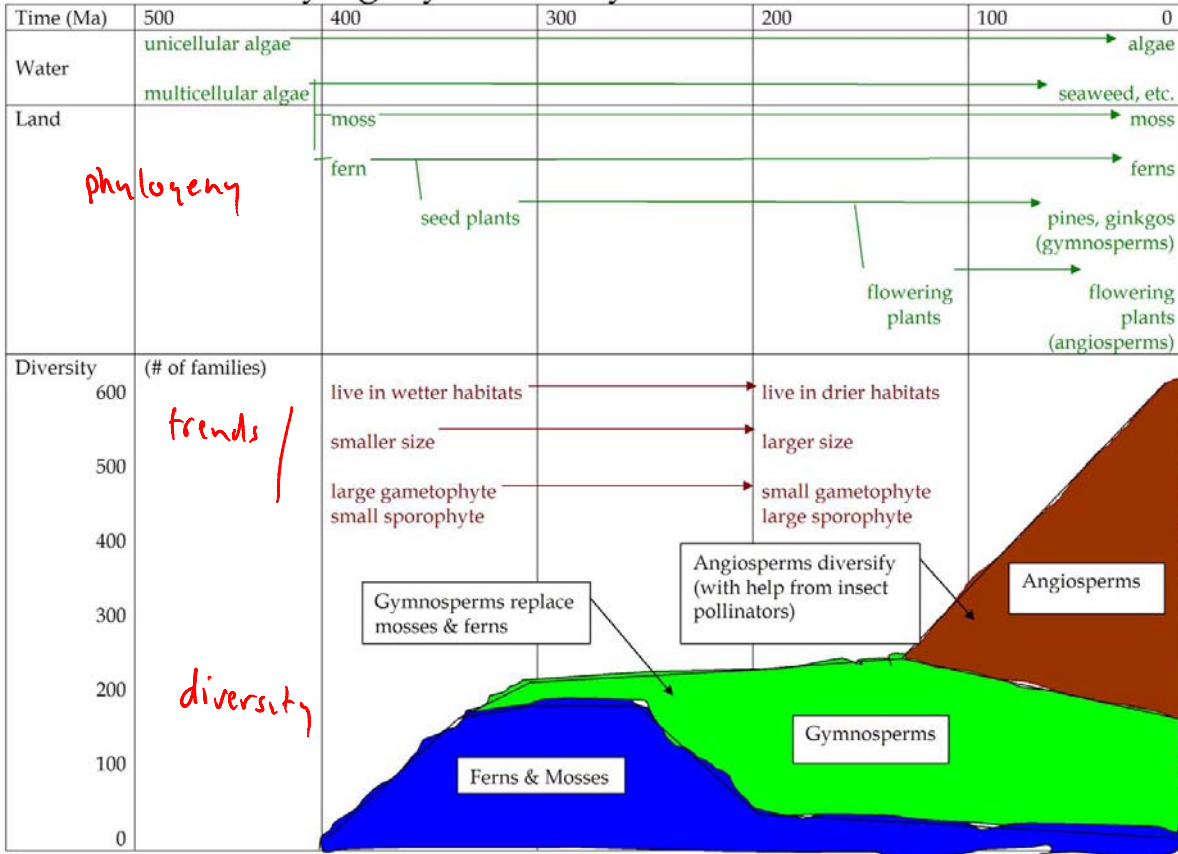
Due in lab **this** week:

⇒ pre-lab for Eukaryotic Cells (lab manual p 75 and on-line)

⇒ Aipotu IV lab report

Start thinking about the Phylogenetic Collection Lab (16 phyla)

Bio 112 Plant Phylogeny & History



Life cycles

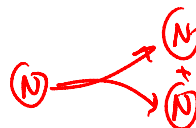
① definitions:

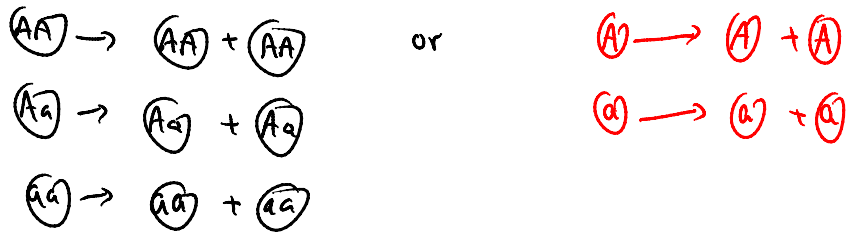
diploid - has 2 copies of each chromosome ($2N$)
 ∴ has 2 copies of each gene : AA, Aa, aa

haploid - has 1 copy of each chromosome (N)
 ∴ has 1 copy of each gene : A or a only

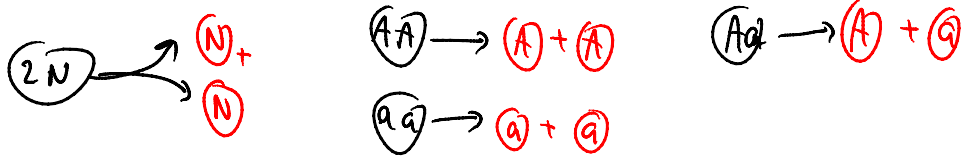
② processes: (see Bio 114 website for animations)

a) mitosis "cell division" = exact duplication

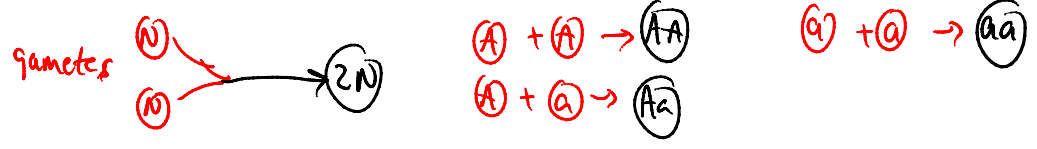




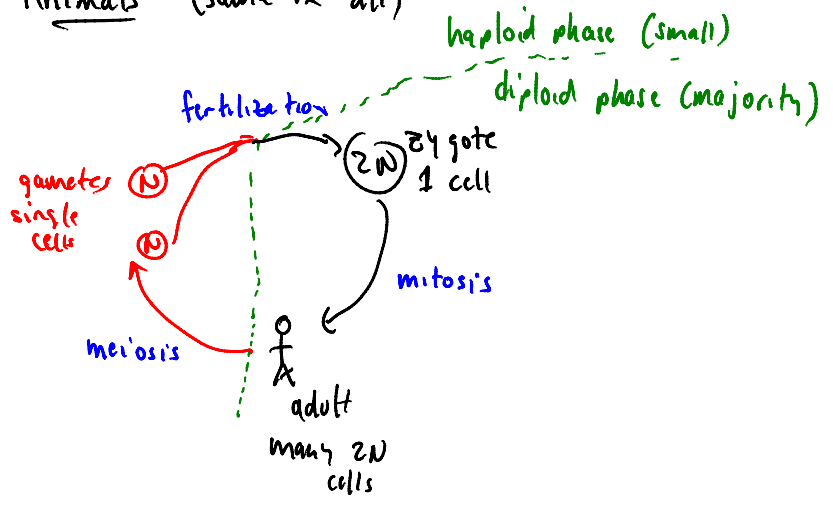
ⓑ meiosis = chromosome pairs are separated



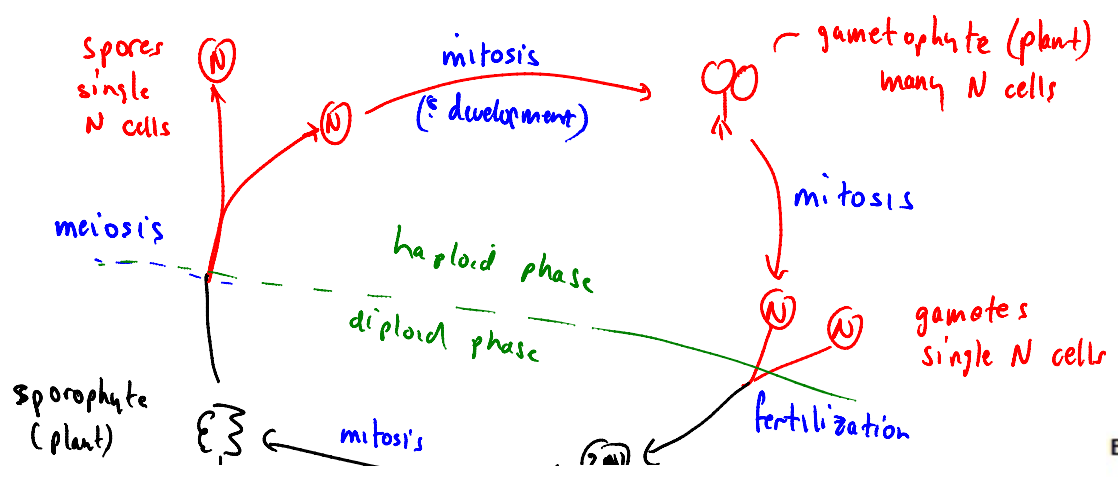
ⓒ fertilization - haploid cell fusion



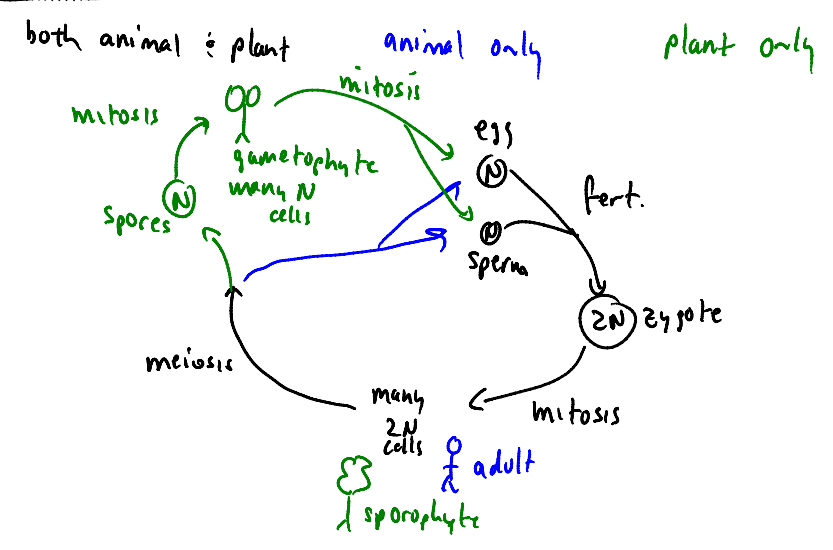
Animals (same in all)



plants * different form than animals
* variations between different plant groups



many $2N$ cells \rightarrow (& development) \rightarrow $(2N)$ zygote (1 cell)



genetics consider 1 gene with 2 alleles (in lab)

allele	contribution to phenotype
D	normal color \ominus dominant
d	polka-dot color \odot recessive

gametophyte = "the plant that makes gametes" "g-phyte"
 all cells N
 \therefore genotypes only D \ominus or d \odot
 - grows from spores; makes gametes

sporophyte: "plant that makes spores" "s-phyte"
 all cells $2N$
 \therefore genotypes: DD, Dd \ominus or dd \odot
 - grow from zygote; make spores

