

New Terms - Classical Genetics (by Mendel)

diploid cells -	cells that have a double set of chromosomes, one from each parent
haploid cells -	cells that have a single set of chromosomes
gametes -	haploid cells or sex cells
genes -	segments of DNA molecules that define a certain trait or characteristic in organisms.
alleles -	different forms of the same gene. Remember that because of sexual reproduction, the offspring receives one gene for each trait from each parent.
homozygous -	two identical alleles present for the same characteristic
heterozygous -	two different alleles present for the same characteristic
dominant -	when one allele is expressed (shown) over another; often expressed with a capital letter (A).
recessive -	the overshadowed allele; often expressed by a small letter (a).
genotype -	all the genes present in an organism
phenotype -	the observable traits in an organism, also known as gene expression
P -	parental generation
F1 -	first generation offspring
F2 -	second generation offspring
homozygous dominant -	individual has a pair of dominant alleles (AA)
heterozygous dominant -	individual has one dominant and one recessive allele (Aa)
homozygous recessive -	individual has a pair of recessive alleles (aa)
gene locus -	the location of a gene on the chromosome; the plural is loci
law of dominance -	when organism has two different alleles for the same trait, one allele dominates.
law of segregation -	diploid cells have pairs of genes, and during meiosis the two genes of each pair separate and end up in different gametes.
law of independent assortment -	gene pairs of homologous chromosomes are sorted into one gamete or another independently of how gene pairs on other chromosomes are sorted.
Punnett square -	a boxed figure used to determine the probability of genotypes and phenotypes in offspring.
incomplete dominance -	when no single trait is dominant, but the allele combination blends.
multiple alleles -	there are more than two alleles for a single trait; blood type is an example
polygenic inheritance -	when a trait is determined by the interaction of genes on several chromosomes.
gene linkage -	the transfer of a linkage group
linkage group -	genes that are inherited together and are located on the same chromosome
sex linkage -	traits that are linked to sex chromosomes

sex chromosomes - chromosomes that determine the sex of an individual; there are two types - the X chromosome and the Y chromosome. Females have two X chromosomes and males have an X and a Y chromosome.

autosomes - all of the other chromosomes besides the sex chromosomes. The other 22 pair in humans.