Non - Medalian

Codominance - 2 alleles are both dominant and get paired up so they both work together. Ex: Red and White flowers make a red and white splotched flower

Incomplete Dominance - 2 alleles both dominant get paired up and "blend" together. Work as one. Ex: Red and White flower make a Pink flower.

Pleatropy - one single allele affects multiple traits. Ex: sickle cell anemia, it affects many characteristics.

Epistasis - whenever one allele affects another allele. Ex: mice, colored trait and dark/light trait so you can get Black with light or White with dark, etc., as offspring. Consists of dyhybrid crosses.

Polygenic Inheritence - additive affect of genes on a single trait on a continum. Ex: Height. A continum happens on a bell curve. Two parents traits will come together and pick height about same as their own.

Sex Linked - a gene that is located on a sex chromosome, generally on X chromosomes, dieseases will be carried on these X chromosomes. Ex: color blindness, it effects males more than females because females have an extra X chromosome that will take place of effected X and males don't have the extra X to take it's place.

Gene linkage - genes are on the same chromosome. Ex : freckles and red hair.

Non- Disjunction (not non-medalian, own categorie) - Whenever chromosomes don't split equally among the cell. Ex: downsyndrome, you will have 3 chromosomes instead of 2. Many time non-disjunction have to do with sex chromosomes.

Mendalian

Law of segregation - Alleles that seperate during meiosis.

Law of independent assortment - states chromosomes can line up anyway they want to.

Two capital letters - Homozygous Dominant

One capital letter and one lowercase letter - Heterozygous

Two lowercase letters - Homozygous recessive

Capital Letter - Dominant

Lowercase Letter - Recessive

Monohybrid - 4 Offspring

Dyhybrid - 16 Offspring

Dyhyrid phenotype Ratio. Homozygous dominant : heterozygous : heterozygous : homozygous recessive

Dyhybrid genotype ratio: each genotype to the others ex: 1:2:1:2:4:2:1:2:1

monohybrid genotype ratio. homozygous dominant : heterozygous : homozygous recessive

monohybrid phenotype ratio. Dominant showing traits: recessive showing traits

Pedigrees

Pedigree - how you trace diesease in your family

There are three types of pedigrees

Autosomal recessive - 2 normal parents. If you have two affected parents you can't have a kid who won't have the gene/diesease

Autosomal dominant - Every generation has the diesease. At least one parent has it.

sex-linked recessive - Never go from one generation to the next (always skips a generation). Normally seen in males.

Squares = Males , Circles = Females

Blood Types

Blood types have 3 alleles
A type , B type , and O type
Possible blood types: A+, A-,B+,B-,AB+,AB-,O+,O-
AB are codominant. A and B are both dominant alleles
O = recessive
You can't get other letter blood due to antigens
antigens are located on red blood cells
plasma is where the antibodies are located
antibodies fight the antigens
O blood doesn't have antigens so that's why it's the universal giver. No antigens for A or B antibodies to pick up and clot
AB is the universal acceptor because it has both A and B antigens and O doesnt have any antigens
A can give to A and AB
B can give to A and AB
AB can't give to anyone
O can give to O , A , B , and AB
Rh factor is a protein we have in common with rhesus monkeys which proves generic background.
If you are blood type + you have the Rh factor
If you are blood type - you don't have the Rh factor
- can give to - and +
+ can give to + but not to -
wrong blood always resluts in blood clotting