GENETICS

Trait (n) - a characteristic or quality determined by genetics (DNA).

DNA - the basic building block of our genetic code. It contains the information that controls all processes and structures in an organism.

Gene - a section of DNA that is responsible for certain traits in an organism.

Allele - a gene that can have different forms for the same trait. This is possible because we get one gene from each parent.

Phenotype - the set of observable traits in an organism. This is the genotype expressed.

Genotype - the genetic make-up of an organism. This is determined by the DNA.

Chromosome - a threadlike structure found in the nucleus of cells that contains complete strands of DNA organized into genes.

Protein - A molecule formed from the code of DNA that helps determine the phenotype.

Homozygous - when two identical copies of the allele are carried for a trait. (ex: dominant + dominant; recessive + recessive)

Heterozygous - when two different alleles are carried for a trait. (ex: dominant + recessive)

Inherit (v) - to get from one's parents or ancestors (genetically).

Dominant - an allele/trait that is expressed in the phenotype and masks any recessive allele.

Recessive - an allele/trait that is carried in the genetic code, but does not express itself in the phenotype unless there is no dominant allele present.

Complete dominance /Mendelian - when an allele is dominant over a recessive gene in the genotype. The dominant trait will be expressed unless both alleles are recessive.

Incomplete Dominance - when neither allele completely dominates the phenotype you end up with a combination or mixture of the two alleles. (red flower + white flower = pink flowers)

Codominance - when both alleles are expressed for a trait (ex: black fur + white fur = white and black speckled fur.)