

### Genetics Key Definitions

Term	Definition
Genetics	The study of inheritance.
Variations	Differences that exist among individuals of the same population.
Artificial Selection	The process by which humans breed plants and animals to ensure certain desirable traits.
Gamete	A sex cell (egg or sperm). Gametes are haploid.
Allele	Different forms of the same gene.
Dominant Alleles	Prevent the recessive allele from being expressed (symbolised by a capital letter).
Recessive Alleles	Prevented from being expressed by the dominant allele (symbolised by a small letter).
Genotype	Means the genetic make-up of an organism, i.e. the genes that are present.
Phenotype	Means the physical make-up or appearance of an organism.
Progeny	Refers to the offspring that are produced.
F1 Progeny	Means the first generation of offspring
Homozygous	The 2 alleles are the same. i.e. both are either recessive or dominant.
Heterozygous	the 2 alleles are different.
Incomplete Dominance	Means that neither allele is dominant or recessive with respect to the other. Both alleles work in the heterozygous genotype to produce an intermediate phenotype.
Multiple Alleles	When a characteristic is controlled by 2 or more alleles, the alleles are known as multiple alleles e.g. blood groups in humans.
Continuous variation	When a characteristic is controlled by a number of genes interacting with each other to give a range of phenotypes rather than 2 distinct groups e.g. milk yield.