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| **Term** | **Textbook Definition** | **Simple Definition** |
| Genetics | The scientific study of the principles of heredity and the variation of inherited traits among related organisms. |  |
| Trait | A genetically determined characteristic or condition. Traits typically result from the combined action of several genes, though some traits are expressed by a single gene. |  |
| Hybrid | An organism that is the offspring of two parents that differ in one or more inheritable characteristics |  |
| Genes | A sequence of DNA that codes for a protein and thus determines a trait; a factor that is passed from parent to offspring |  |
| Alleles | Any of the possible forms in which a gene for a specific trait can occur. |  |
| Principle of Dominance | States that some alleles are dominant and others are recessive. |  |
| Gametes | A mature sexual reproductive cell, as a sperm or egg, that unites with another cell to form a new organism |  |
| Segregation | Separation of alleles during gamete formation. |  |
| Probability | The relative possibility that an event will occur, as expressed by the ratio of the number of actual occurrences to the total number of possible occurrences. |  |
| Homozygous | Having two identical alleles for the same gene. |  |
| Heterozygous | Having two different alleles for the same gene. |  |
| Phenotype | The appearance of an organism resulting from the interaction of the genotype and the environment. |  |
| Genotype | The genetic makeup of an organism or group of organisms with reference to a single trait, set of traits, or an entire complex of traits |  |