



### ACROSS

- 3 \_\_\_\_\_ is the proportion of phenotypic variation in a population that is attributable to genetic variation among individuals.
- 7 The \_\_\_\_\_ sex-determination system is the sex-determination system found in humans, most other mammals, and some insects.
- 8 A \_\_\_\_\_ relationship refers to how the alleles for a locus interact to produce a phenotype.
- 9 The \_\_\_\_\_ describes the outward physical appearance or manifestation of a trait in an organism, as opposed to its genotype.
- 13 F1 \_\_\_\_\_ is a term used in genetics and selective breeding to describe the first filial generation offspring resulting from a cross mating of distinctly different parental types.
- 17 A \_\_\_\_\_ is a non-sex chromosome.
- 18 A \_\_\_\_\_ is a viable DNA coding that occupies a given locus on a chromosome.
- 20 The \_\_\_\_\_ describes the genetic constitution of an individual, that is the specific allelic makeup of an individual, usually with reference to a specific character under consideration.
- 22 A \_\_\_\_\_ breeding organism is an organism having certain biological traits which are passed on to all subsequent generations when bred with another organism of the same type for the same traits.
- 23 \_\_\_\_\_ is a term used in genetics describing the proportion of individuals carrying a particular variation of a gene that also express the particular trait.
- 24 The \_\_\_\_\_ type is the typical form of an organism, strain, gene, or characteristic as it occurs in nature.
- 25 Complete \_\_\_\_\_ is defined as the state in which two loci are so close together that alleles of these loci are virtually never separated by crossing over.

### DOWN

- 1 Gregor \_\_\_\_\_ (1822 - 1884) was an Austrian Augustinian priest and scientist often called the father of modern genetics for his study of the inheritance of traits in pea plants.
- 2 A \_\_\_\_\_ cross is a cross between two individuals identically heterozygous at two loci.
- 4 A \_\_\_\_\_ is a distinct phenotypic character of an organism that may be inherited, environmentally determined or somewhere in between.
- 5 A \_\_\_\_\_ is an individual characteristic or trait which can be possessed by an organism, such as eye colour or height, or any other observable characteristic.
- 6 \_\_\_\_\_ describes the similarity or dissimilarity of DNA between homologous chromosomes at a specific allelic position or gene.
- 10 A \_\_\_\_\_ chart is a chart which shows the known phenotypes for an organism and its ancestors.
- 11 Genetic \_\_\_\_\_ occurs when particular genetic loci or alleles for genes are inherited jointly because the loci are on the same chromosome and thus tend to segregate together during meiosis.
- 12 A \_\_\_\_\_ cross is a cross between individuals who are identically heterozygous at one locus.
- 14 A \_\_\_\_\_ body is the inactive X chromosome in a female cell.
- 15 The \_\_\_\_\_ square is a diagram used by biologists to determine the probability of an offspring having a particular genotype.
- 16 A \_\_\_\_\_ is a fixed position on a chromosome.
- 19 Sex \_\_\_\_\_ is the phenotypic expression of an allele that is related to the gender of the individual and is found on the sex chromosomes.
- 21 A \_\_\_\_\_ cross crosses a homozygous recessive with an individual with an unknown genotype.