S3 Biology Genetics Glossary **answers**

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| word | meaning |
| variation | the differences between individuals in a population |
| characteristic | a way that individuals in a population vary  |
| phenotype | The particular version of a characteristic seen in an individual. |
| discrete variation | characteristics that fall into separate categories |
| continuous variation | characteristics that show a wide range of values |
| nucleus | location of the genetic material in a cell |
| chromosomes | long thread-like structures made of DNA |
| gene | a section of DNA on a chromosome, contains the instructions for a characteristic |
| Gel electrophoresis | is a technique that can be used in DNA profiling |
| gamete | male or female sex cell, contains only one set of genes |
| alleles  | different versions of a gene that contain different instructions for a characteristic |
| genotype | the alleles an organism has for a characteristic |
| recessive allele | the allele that will only be shown in the phenotype if two copies of it are inherited |
| dominant allele | the allele that will mask the effect of a recessive allele |
| homozygous | when the two alleles an organism inherits are identical |
| heterozygous | when the two alleles an organism inherits are different |
| Punnet square | a grid that shows the possible combinations of alleles that can result at fertilisation. |
| P,F1,F2 | parents, the first generation and the second generation of offspring in a genetic cross |
| Predicted ratio | the proportion of each type of phenotype expected as the result of a genetic cross |
| Actual ratio | the proportion of each phenotype in the real offspring of a genetic cross |
| pedigree chart | a diagram that displays the phenotypes of individuals in several generations of a family. |
| XX | sex chromosomes in a female |
| XY | sex chromosomes in a male |
| karyotype | a picture of the chromosomes from one cell of a species |
| Downs syndrome | a genetic disorder where there is an extra copy of chromosome 21. |