**Pedigrees**

**7.L.2** **Understand the relationship of the mechanisms of cellular reproduction, patterns of inheritance and external factors to potential variation among offspring.**

7.L.2.2 Infer patterns of heredity using information from Punnett squares and pedigree analysis.

*At the completion of this unit, students should be able to:*

* Use pedigrees to visualize relationships within families
* Use pedigrees to determine the mode of inheritance of genetic traits and diseases

**Pedigree:** a visual diagram that shows relationships among individuals and patterns of inheritance

**Purebred:** An organism that always produces offspring with the same form of a trait as the parent because it has two of the same allele.

**Hybrid:** An organism that has two different alleles for a specific trait

**Offspring:** Product of reproduction, a new organism produced by one or more parents

**Co-dominance:** Situation in which both alleles of a gene contribute to the phenotype of the organism to make a new phenotype with both original phenotypes (black and white makes spotted).

**Incomplete dominance:** Situation in which both alleles of a gene contribute to the phenotype to make a phenotype that is a combination of the original phenotype black and white makes grey).

**Sex-linked trait:** a trait that is determined by a gene found on one of the sex chromosomes, such as the X chromosome or the Y chromosome in humans

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