

1. **chromosomes** thread-like structures made of DNA, observed in dividing cells
2. **chromosome theory of inheritance** the idea that genes, the units of heredity, are carried on chromosomes
3. **co-dominance** an inheritance pattern where both alleles present are expressed in the heterozygote
4. **crossing over** the exchange of DNA as a result of breaking and rejoining between homologous chromosomes during meiosis
5. **fertilisation** the fusion of male and female gametes during reproduction
6. **gamete formation** the process by which diploid cells divide and differentiate to become sex cells with half the chromosome number
7. **genetic recombination** the process by which a strand of genetic material (DNA or RNA) is broken and then rejoined to a different DNA molecule, either naturally or artificially
8. **genetic variation** differences in various traits or features that are genetically determined amongst members of a population
9. **genome** the total genetic material within a cell or an individual
10. **heredity** similarity between parents and offspring as a result of the inheritance of genes, carried on DNA molecules, by offspring from their parents
11. **independent assortment** random separation of pairs of chromosomes (or genes) during meiosis, giving different traits an equal opportunity of passing into a gamete
12. **locus** the position that a gene occupies on a chromosome
13. **meiosis** a process of cell division that is considered to be a reduction division because it halves the number of chromosomes in the resulting gametes that it produces
14. **nucleotide** a monomer or subunit of nucleic acids that has a distinct structure made up of sugar, a phosphate and a nitrogenous base
15. **sex chromosomes** chromosomes that play a role in determining the sex (gender) of an individual
16. **sex-linked genes** genes for non-sexual traits, physically linked to the sex chromosome and inherited together with the sexual traits
17. **sex-linked inheritance** a pattern of inheritance of a non-sexual trait whereby it appears to be gender-linked
18. **sexual reproduction** a method of producing offspring that involves the fusion of male and female gametes to form a zygote, containing a combination of genetic material from both parents