*This is the **Foundation Separate** version — Higher Tier content has been removed.*

DNA is the hereditary material found in the nucleus of eukaryotic cells. Its structure allows it to store and transmit genetic information.

- DNA: double helix made of two strands of nucleotides
- Each nucleotide: deoxyribose sugar, phosphate group, and one of four bases (A, T, C, G)
- Complementary base pairing: A-T and C-G hold strands together
- A gene is a sequence of bases coding for a specific protein (amino acid sequence)
- Chromosomes: DNA coiled around proteins (histones). Humans: 46 chromosomes in 23 pairs

Key Terms

DNA	Double-helix molecule carrying genetic information in cells
Nucleotide	Monomer of DNA — sugar, phosphate, and base
Complementary base pairing	A pairs with T, C pairs with G — holds DNA strands together

■ **Exam Tip:** If asked: how many G bases are in a section with 20 C bases? Answer: 20 (each C pairs with one G). Complementary base pairing means equal numbers of A-T pairs and C-G pairs.