

Foundation Separate version — Higher Tier (★) questions removed.

Q1. Describe the structure of DNA.

[3 marks]

Q2. Explain the relationship between DNA, genes and chromosomes.

[3 marks]

Total: 6 marks

Q1 (3 marks)

Describe the structure of DNA.

- Double helix — two strands twisted together [1]
- Made of nucleotides: each has a deoxyribose sugar, phosphate group and one of four bases (A, T, C, G) [1]
- Complementary base pairing: A-T and C-G holds strands together [1]

Q2 (3 marks)

Explain the relationship between DNA, genes and chromosomes.

- A gene is a section of DNA that codes for a specific protein [1]
- Chromosomes are long strands of DNA coiled up — each carries many genes [1]
- Humans have 46 chromosomes in 23 homologous pairs in body cells [1]