

12.2 The Structure of DNA

The Components of DNA

For Questions 1–5, complete each statement by writing in the correct word or words.

1. The building blocks of DNA are _____.
2. Nucleotides in DNA are made of three basic components: a sugar called _____, a _____, and a nitrogenous _____.
3. DNA contains four kinds of nitrogenous bases: _____, _____, _____, and _____.
4. In DNA, _____ can be joined in any order.
5. The nucleotides in DNA are joined by _____ bonds.

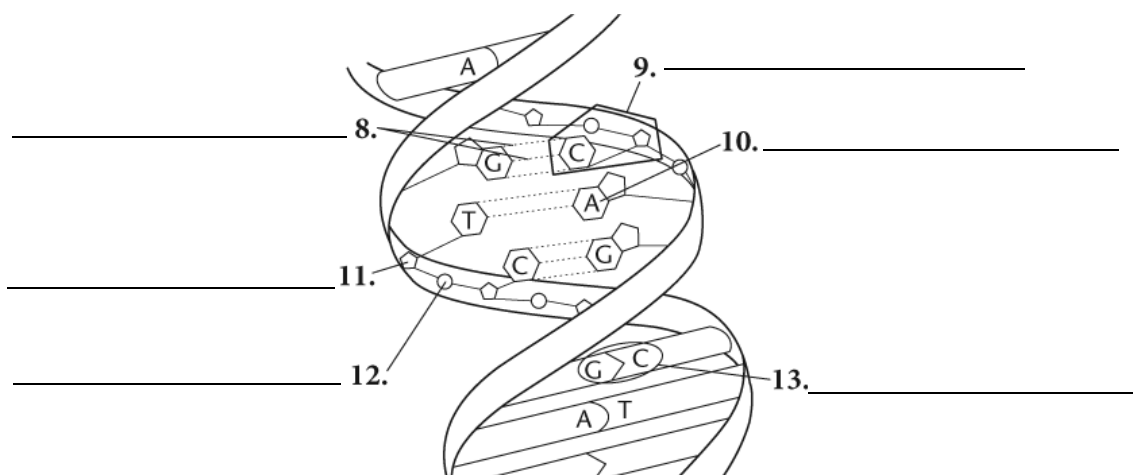
Solving the Structure of DNA

6. Complete the table to describe each scientist's contribution to solving the structure of DNA.

Scientist	Contribution
Erwin Chargaff	
Rosalind Franklin	
James Watson and Francis Crick	

The Double-Helix Model

For Questions 8–13, on the lines provided, label the parts of the DNA molecule that correspond to the numbers in the diagram.



14. **THINK VISUALLY** The drawing below shows half of a DNA molecule. Fill in the appropriate letters for the other half. Explain why you drew your sketch the way you did.

Key
A = Adenine
C = Cytosine
G = Guanine
T = Thymine

