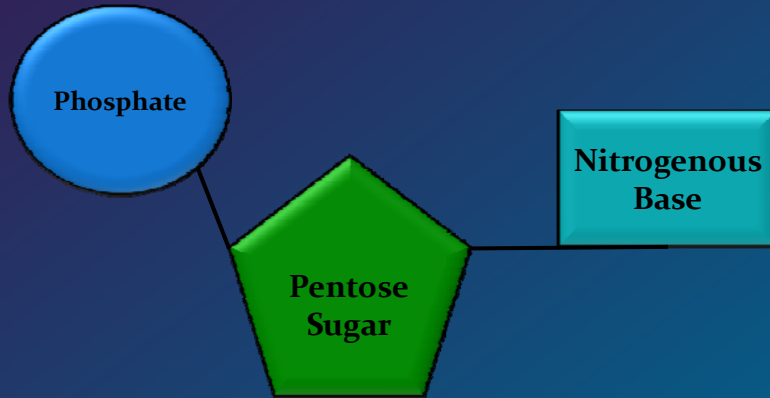


DNA Structure

- DNA consists of two molecules that are arranged into a ladder-like structure called a **Double Helix**.
- A molecule of DNA is made up of millions of tiny subunits called **Nucleotides**.
- Each nucleotide consists of:
 1. Phosphate group
 2. Pentose sugar
 3. Nitrogenous base

Nucleotides

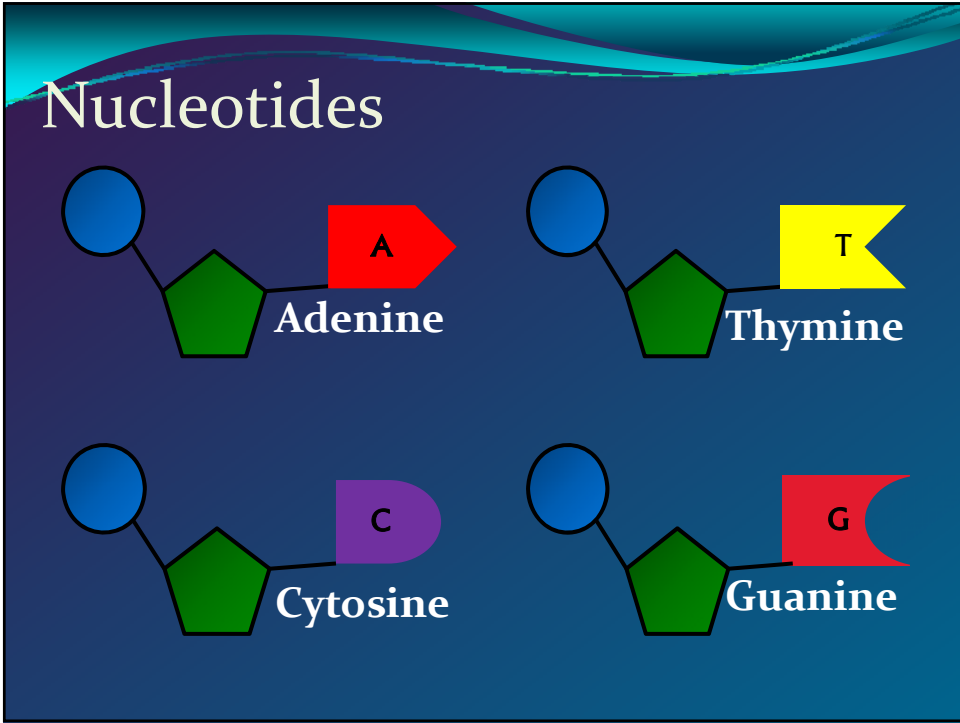


Nucleotides

- The phosphate and sugar form the backbone of the DNA molecule, whereas the bases form the “rungs”.



- There are four types of nitrogenous bases.



Nucleotides

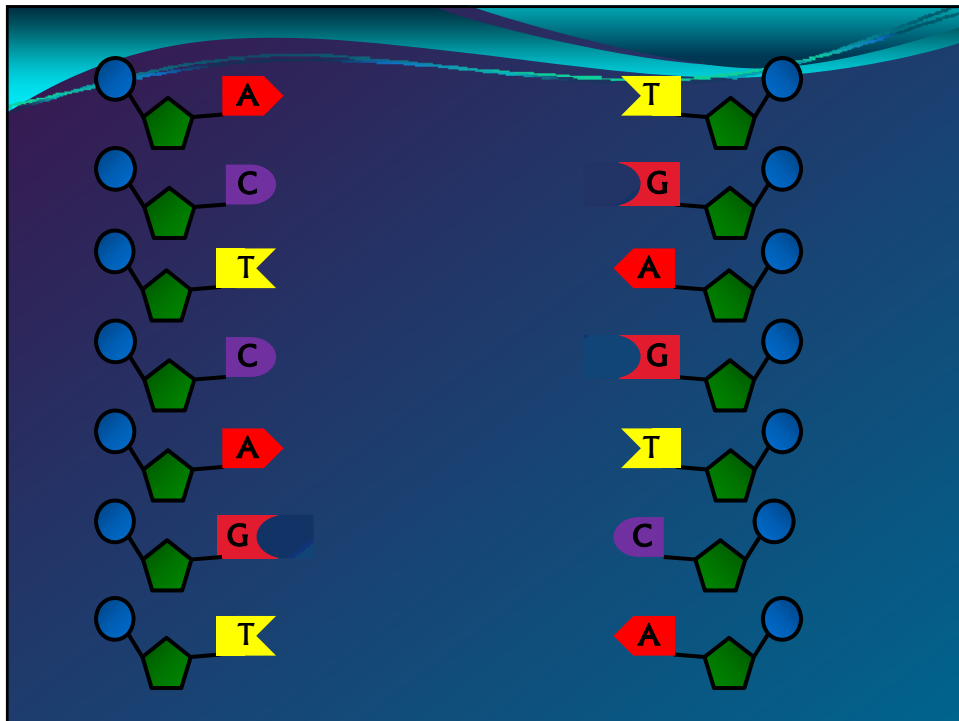
- Each base will only bond with **one** other specific base.

- Adenine (A) } Form a base pair.
- Thymine (T) }

- Cytosine (C) } Form a base pair.
- Guanine (G) }

DNA Structure

- Because of this **complementary** base pairing, the order of the bases in one strand determines the order of the bases in the other strand.



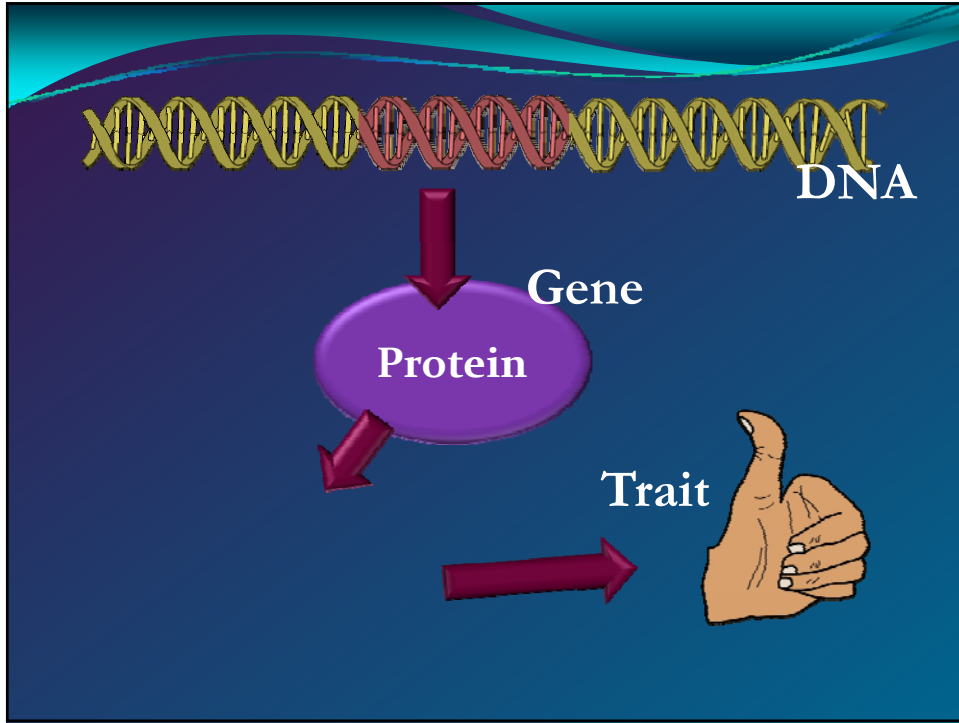
DNA Structure

- To crack the genetic code found in DNA we need to look at the sequence of bases.
- The bases are arranged in triplets called **codons**.

AGG - CTC - AAG - TCC - TAG
TCC - GAG - TTC - AGG - ATC

DNA Structure

- A gene is a section of DNA that codes for a **protein**.
- Each unique gene has a unique sequence of bases.
- This unique sequence of bases will code for the production of a unique protein.
- It is these proteins and combination of proteins that give us a unique **phenotype**.



Your Task

- Draw a flow chart to show how to get from:

The diagram shows a cross-section of a cell with various organelles. A large blue arrow points from the cell to a photograph of a human eye with blue irises.

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