

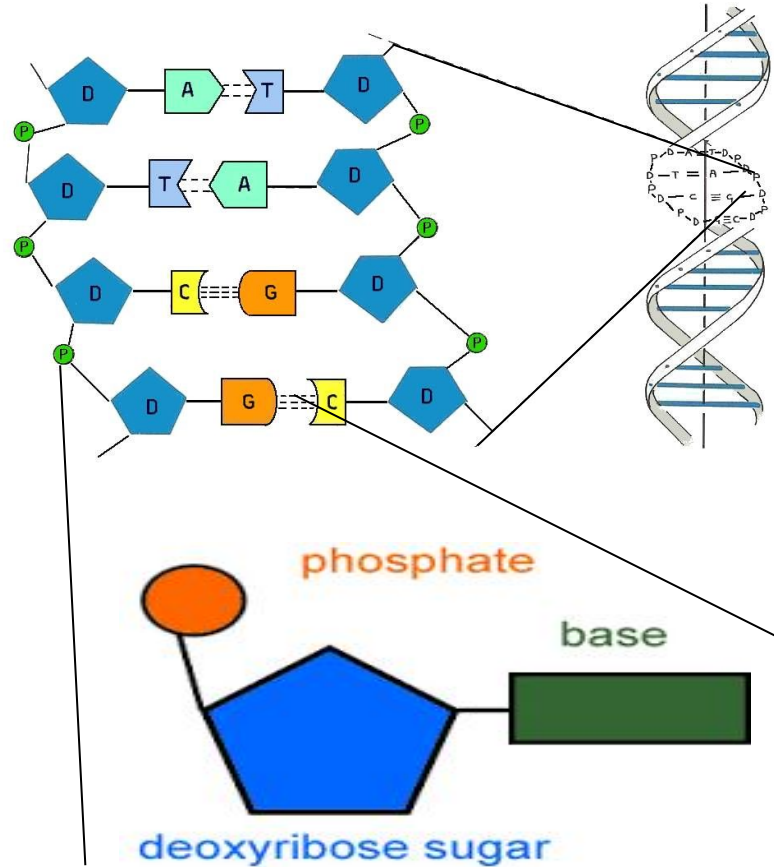
# 12.1: The Components and Structure of DNA

(Monomer of a nucleic acid)

**Nucleotides**: units strung together to create a strand of DNA

Each nucleotide is made up of three basic components:

- 5 carbon sugar- deoxyribose
- A phosphate group
- A nitrogenous base

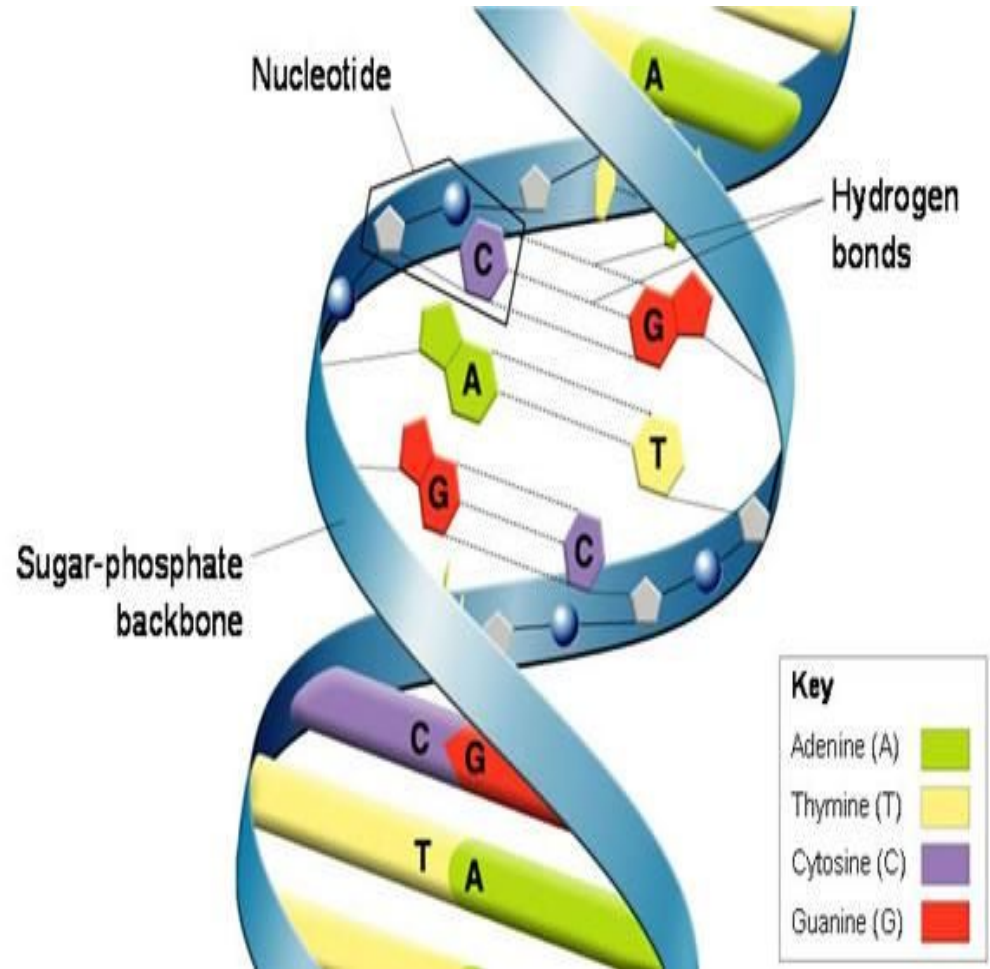
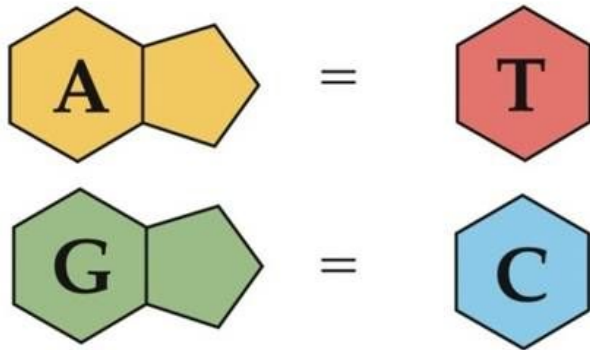


There are 4 kinds of nitrogenous bases:

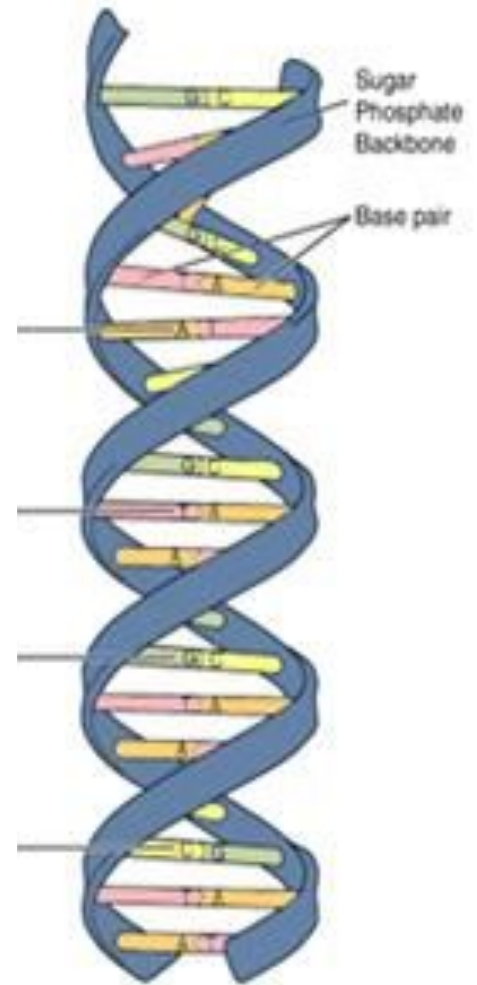
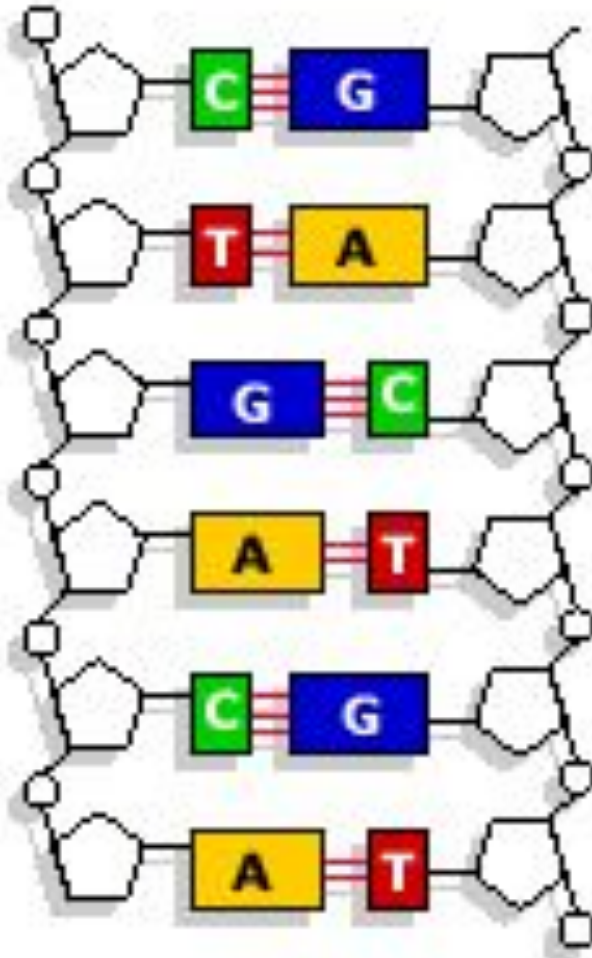
- Adenine (A)
- Guanine (G)
- Cytosine (C)
- Thymine (T)

*purines*

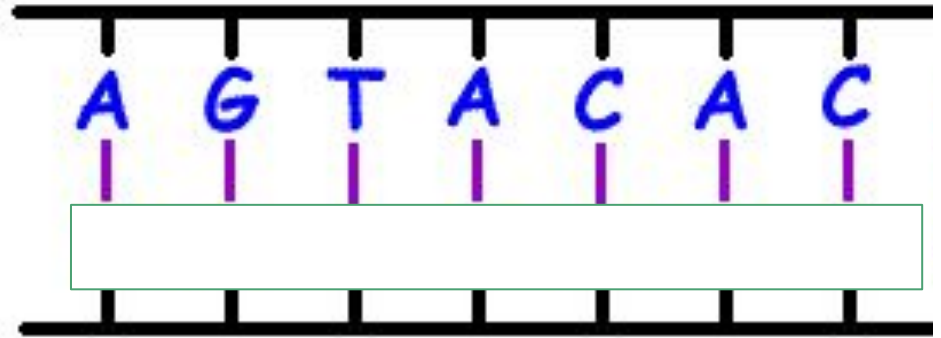
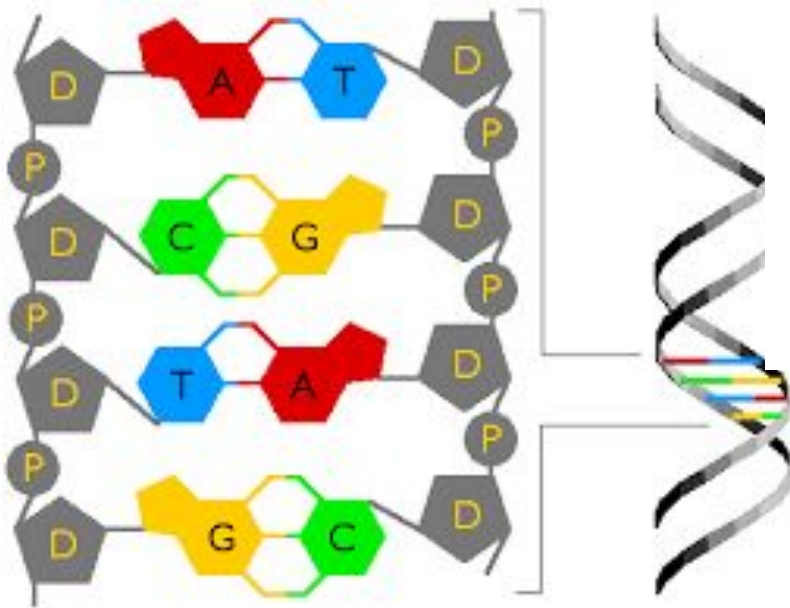
*pyrimidines*



The **backbone** of a DNA chain is formed by a sugar (deoxyribose) and a phosphate group of each nucleotide.



**Base pairing**: the principle that states that only certain base pairs can be held together through hydrogen bonding.



Fill in the matching base pair  
on your note sheet!