

Macromolecules — Nucleic Acids



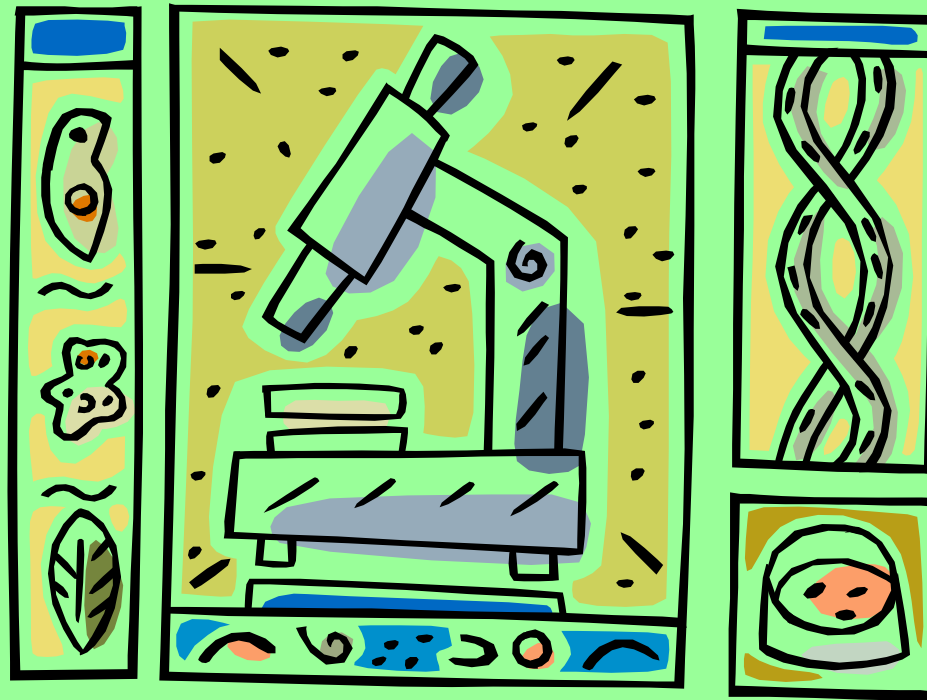
Define *nucleic acids*.

- ❖ A nucleic acid is a complex biomolecule that stores cellular information in the form of a code.



📖 Name the smaller subunits of nucleic acids.

- ❖ Nucleic acids are polymers made up of smaller subunits called nucleotides.





Do nucleic acids form
polymers?

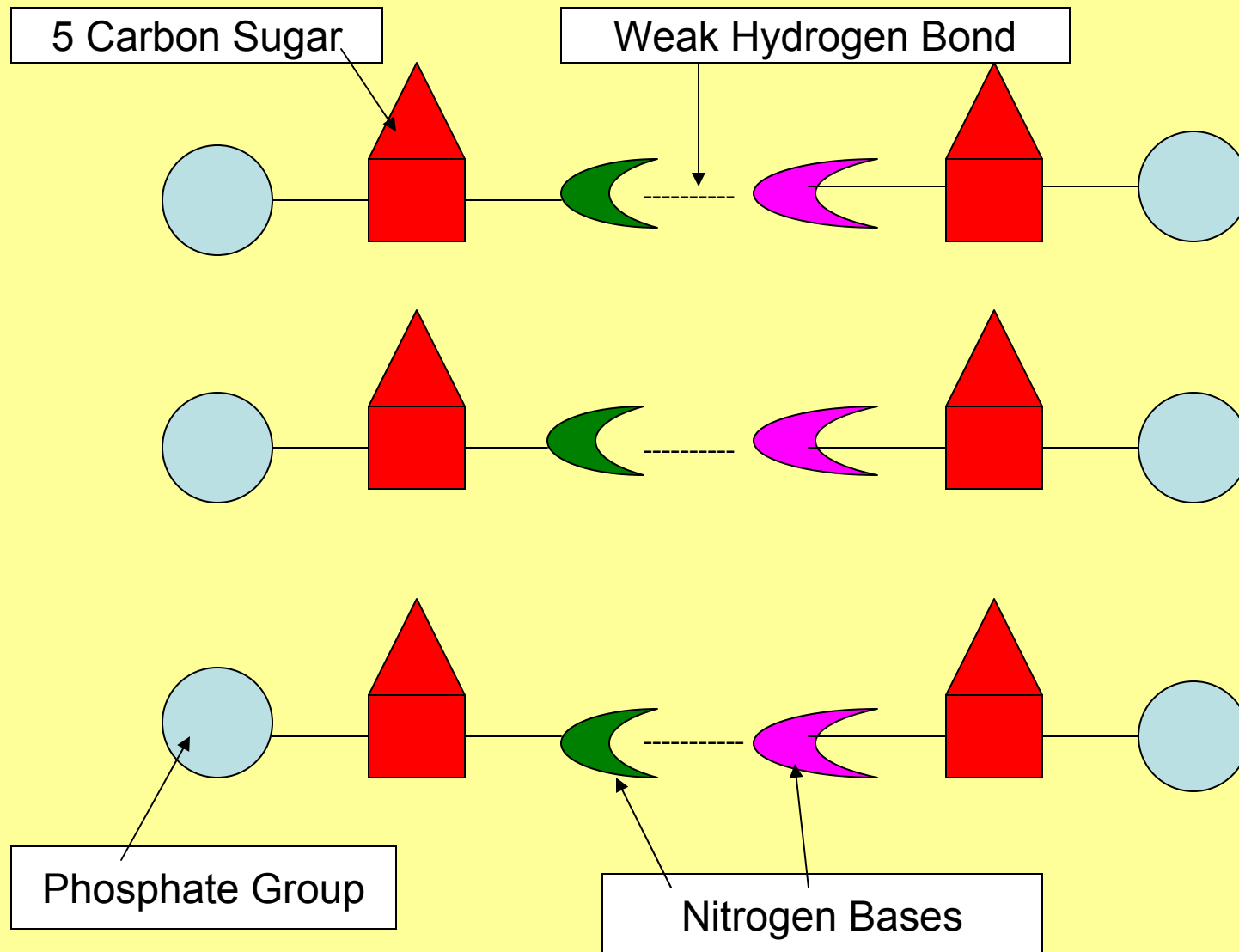
YES



Name the elements that make up nucleic acids.

- ❖ Nucleotides consist of carbon, hydrogen, oxygen, nitrogen, and phosphorus arranged in 3 groups.

Structure of nucleic acid



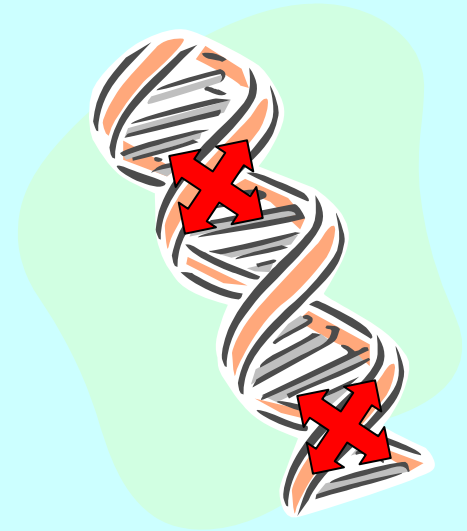
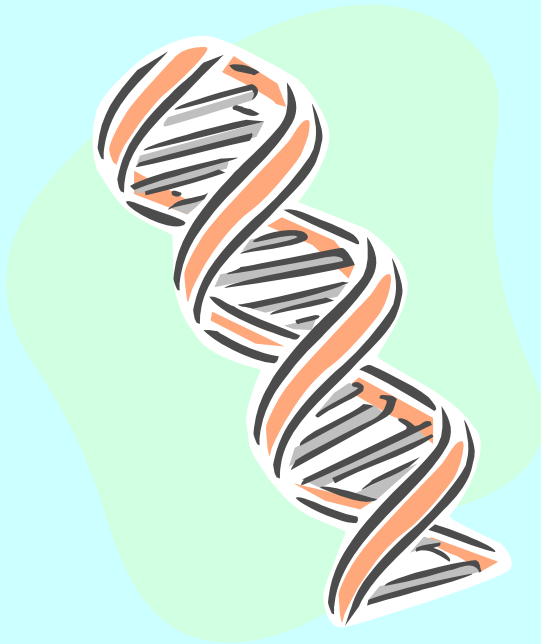


Name the 2 types of nucleic acid.

DNA

&

RNA





DNA stands for...

deoxyribonucleic acid



RNA stands for...

ribonucleic acid


DNA is responsible for...

- ❖ Is the "Blue Print" of all living organisms (master copy)
- ❖ Forms the genetic codes that determines *how* an organism *looks* and *acts*
- ❖ Contains the instructions used to build all proteins

💡 RNA is responsible for...

- ❖ Is a nucleic acid that forms from a single strand of untwisted DNA
- ❖ Provides the instructional codes to make proteins
 - ▶ process is called *proteins synthesis*



 What is the vocabulary term that represents a change or random error in a DNA sequence?

Mutation

🧠 Name some genetic disease?

❖ Huntington's Disease

❖ Down Syndrome

❖ Parkinson's Disease

❖ Diabetes