

Nucleic Acids

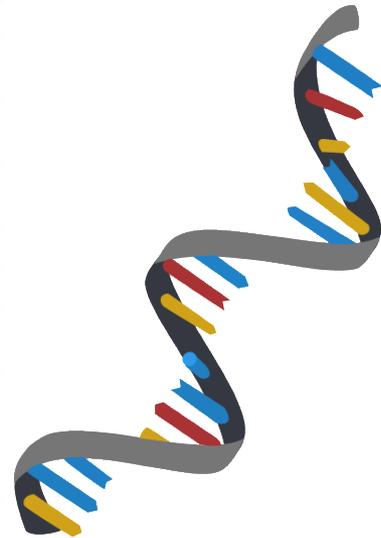
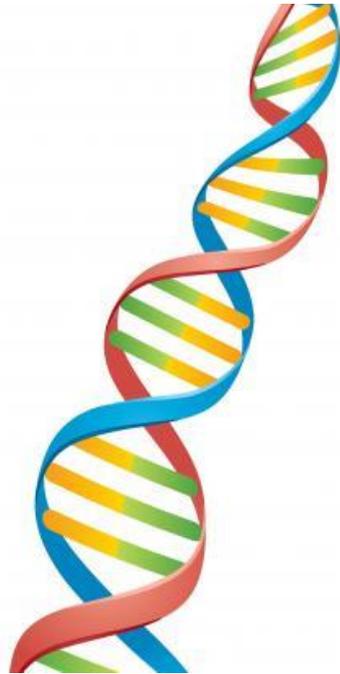


What are they?

Molecules that provide instructions for organisms.

Examples:

- DNA



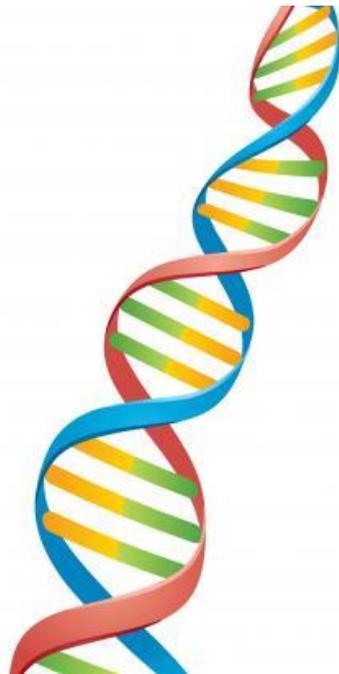
- RNA

What are they?

Molecules that provide instructions for organisms.

Examples:

- DNA



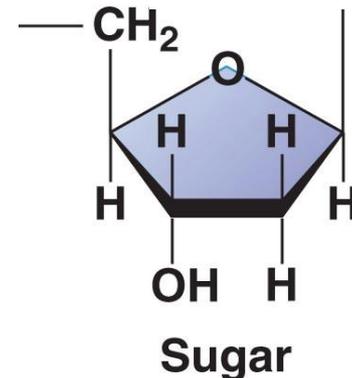
- Two strands
- Double helix (twisted ladder)

Nucleotide

The monomer (building block) of nucleic acids is a **nucleotide**.

Each nucleotide has three parts:

1 – sugar molecule

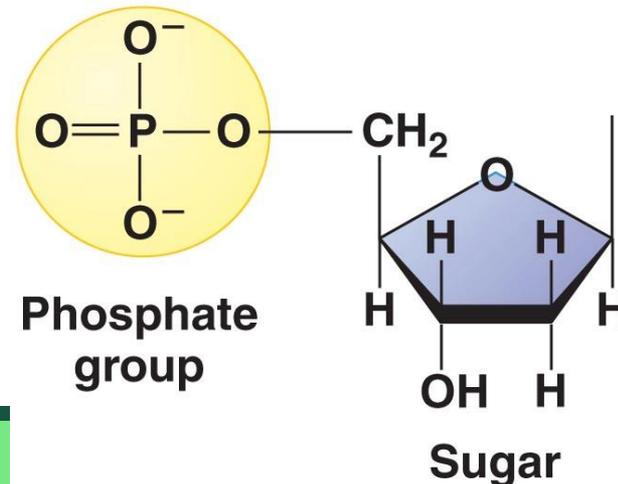


Nucleotide

The monomer (building block) of nucleic acids is a **nucleotide**.

Each nucleotide has three parts:

- 1 – sugar molecule
- 2 – phosphate group

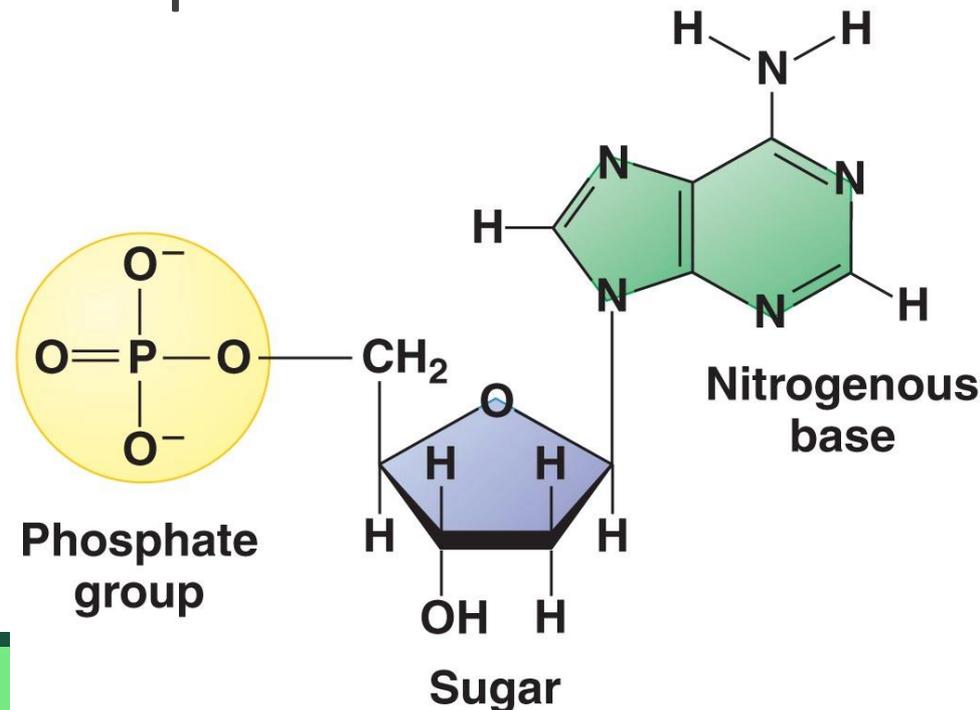


Nucleotide

The monomer (building block) of nucleic acids is a **nucleotide**.

Each nucleotide has three parts:

- 1 – sugar molecule
- 2 – phosphate group
- 3 – nitrogenous base

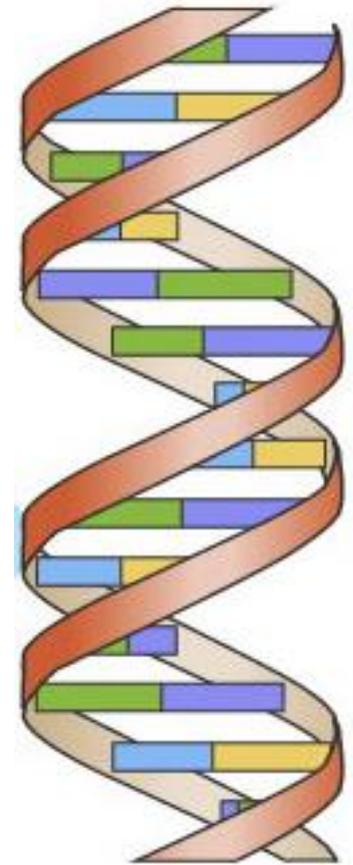


DNA Structure

Review!

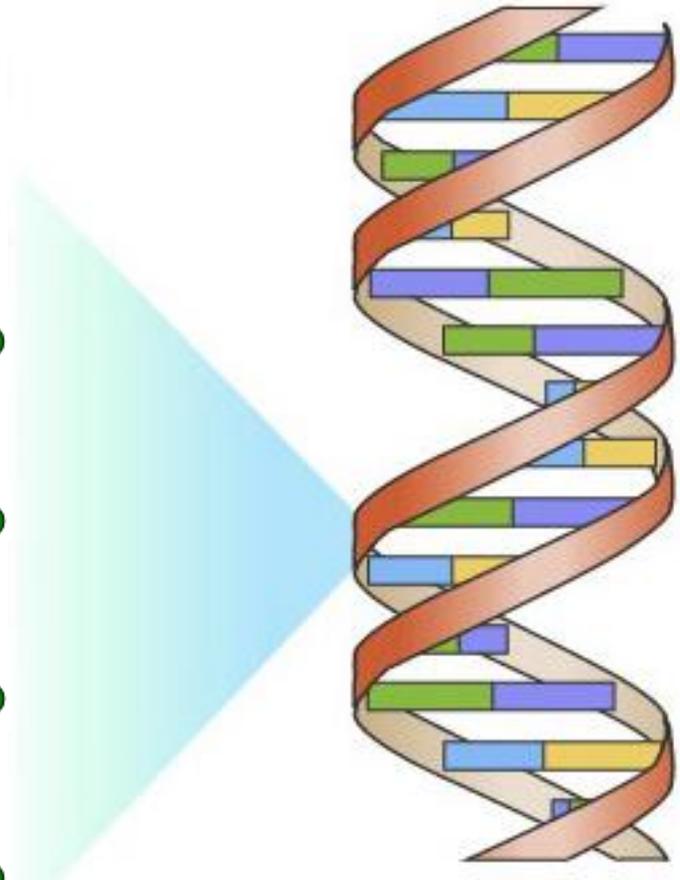
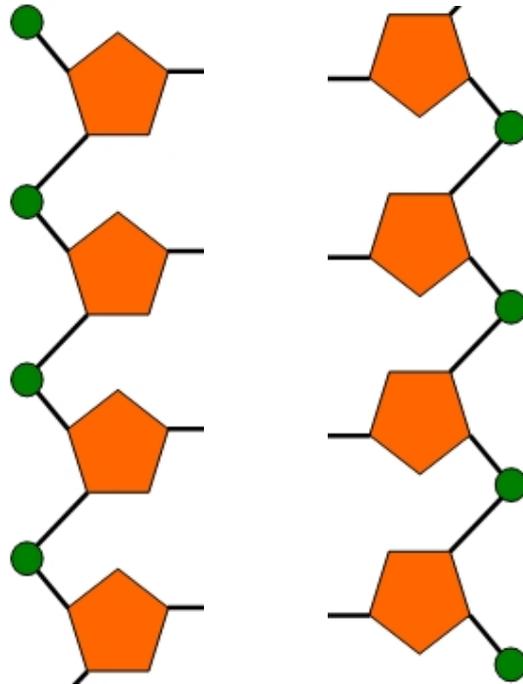
DNA Structure

Two strands,
double helix



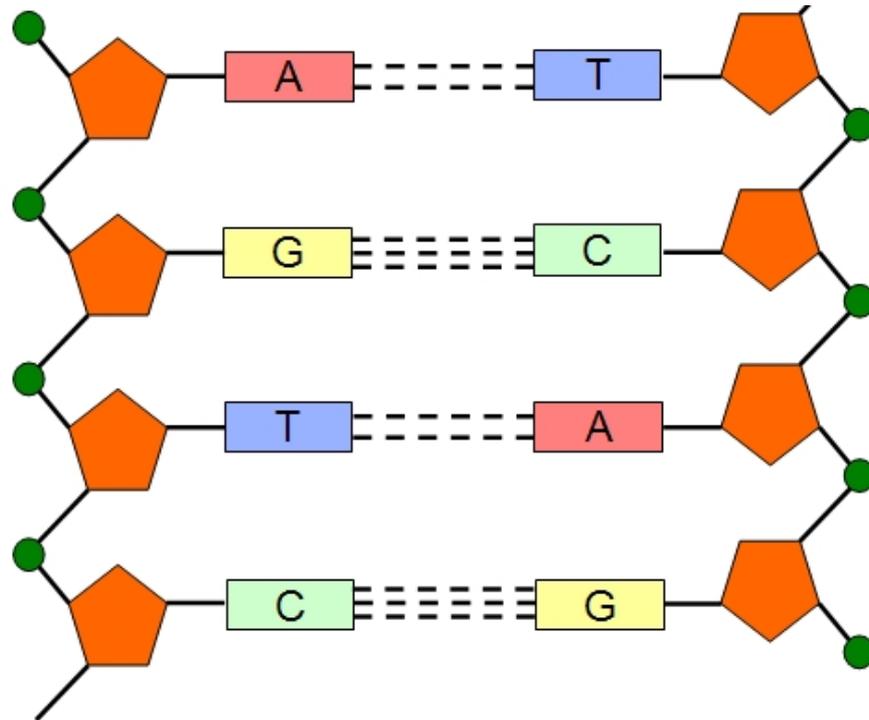
DNA Structure

Sugar backbone with
phosphate groups



DNA Structure

Nitrogenous bases connect the two strands



Nitrogenous bases

4 types:

- Adenine (A)

- Thymine (T)

- Cytosine (C)

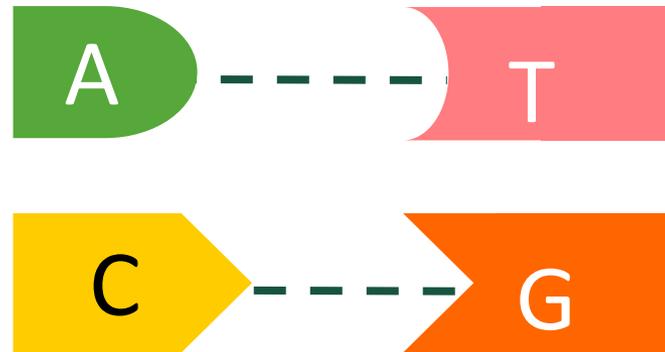
- Guanine (G)



Nitrogenous bases

A pairs with **T**

C pairs with **G**



Nitrogenous bases

A pairs with **T**

C pairs with **G**

If you know the sequence of one strand, you know the sequence of the **complementary strand**.