

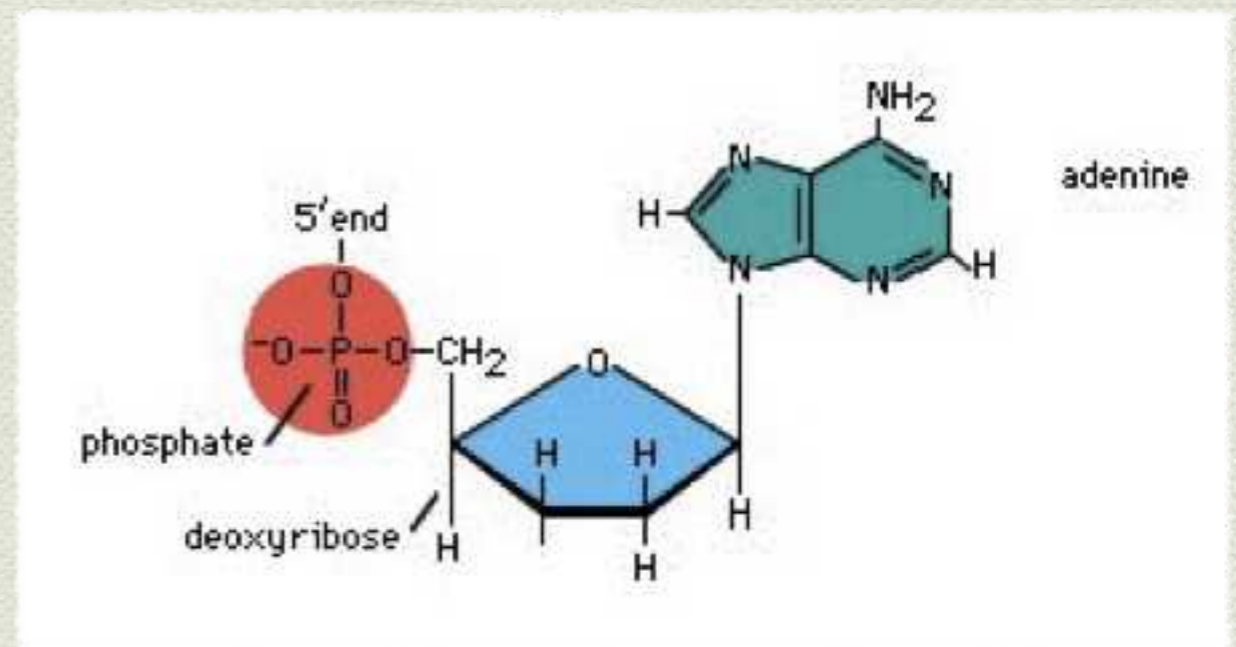
Genética Molecular

Prof. Fernando Belan - BIOLOGIAMAIS

DNA



- ❖ O DNA é formado por 3 elementos básicos.
- ❖ Fosfato, Pentose (desoxirribose) e uma base nitrogenada.
- ❖ Essa unidade é chamada de nucleotídeo.



As bases nitrogenadas podem ser de quatro tipos:
Adenina, Timina, Guanina e Citosina.

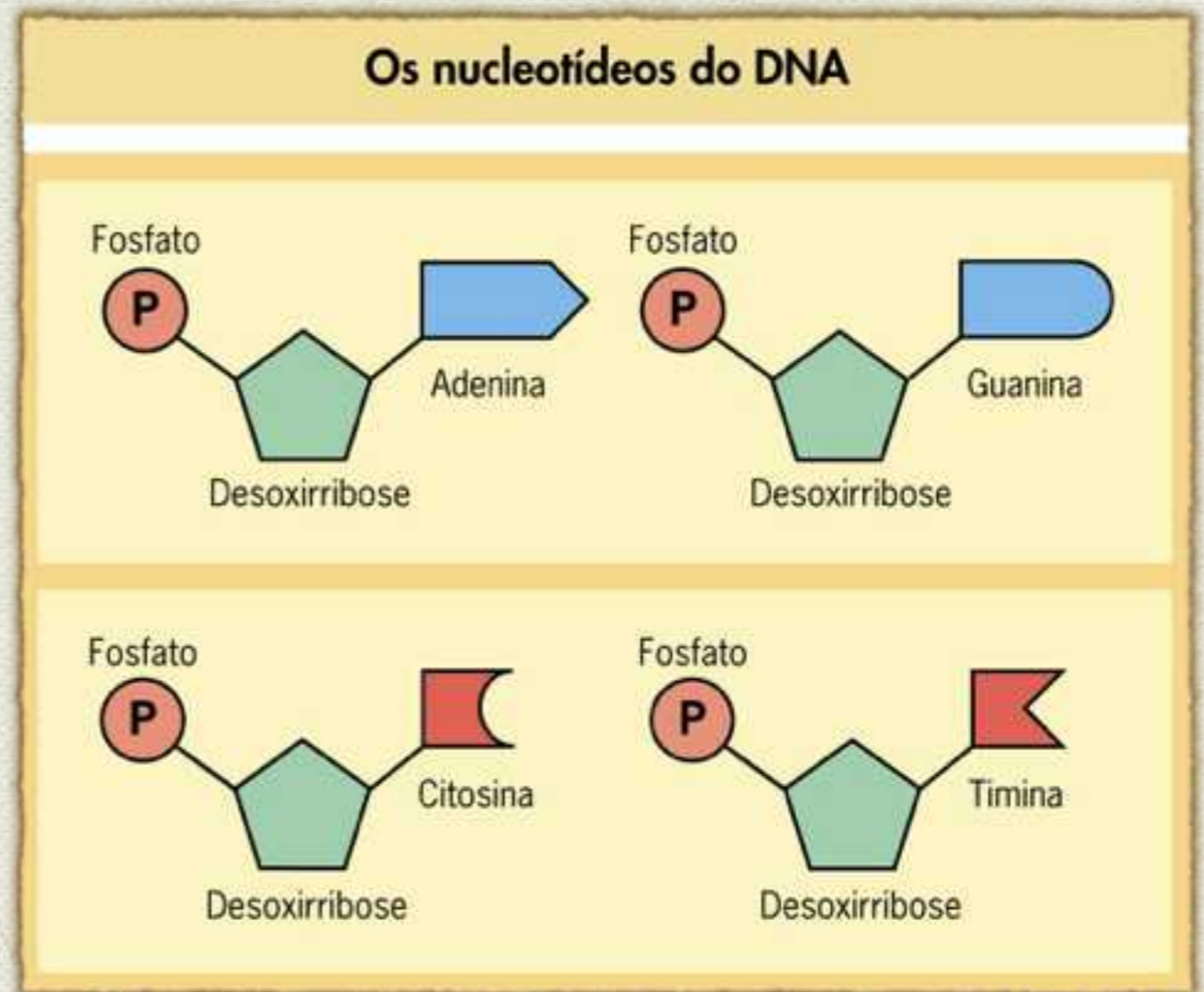
Água PURa

Bases púricas:

Adenina
Guanina

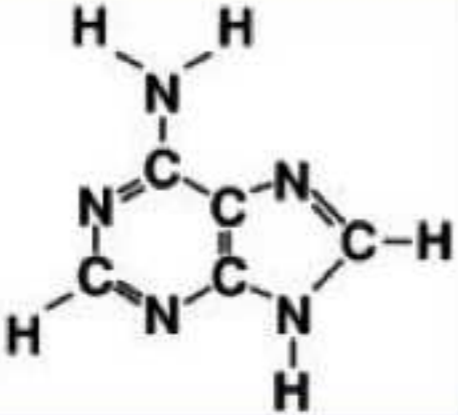
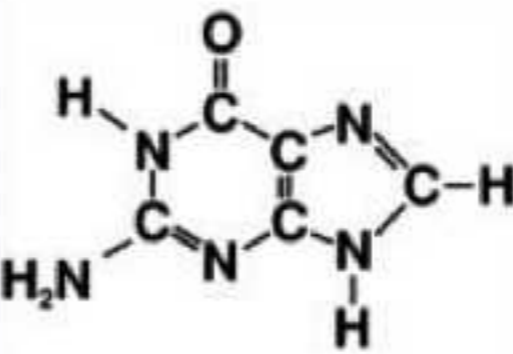
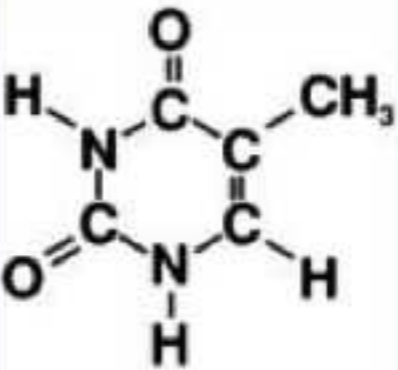
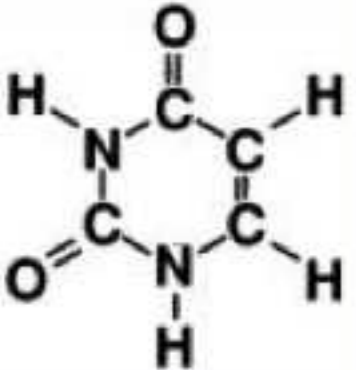




TUC PIRado

Bases pirimídicas:
Timina, Uracila, Citosina

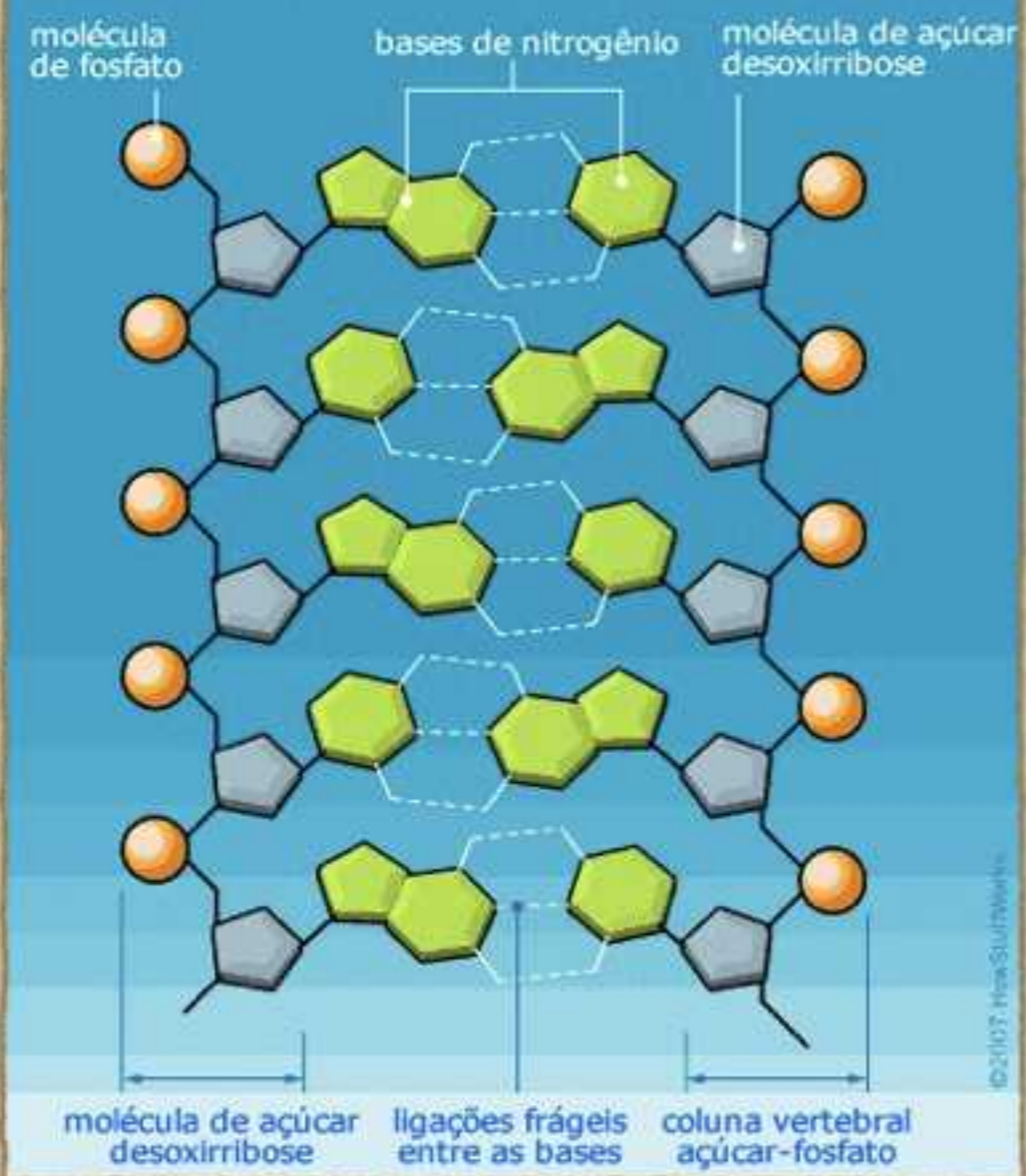


Adenina e Guanina são maiores = 2 anéis aromáticos

Timina e Citosina possuem apenas 1 anel aromático.

Base	Adenina (A)	Guanina (G)	Timina (T)	Citosina (C)
Purina/ Pirimidina	Purina	Purina	Pirimidina	Pirimidina
Estrutura Química				
Representação Simplificada				

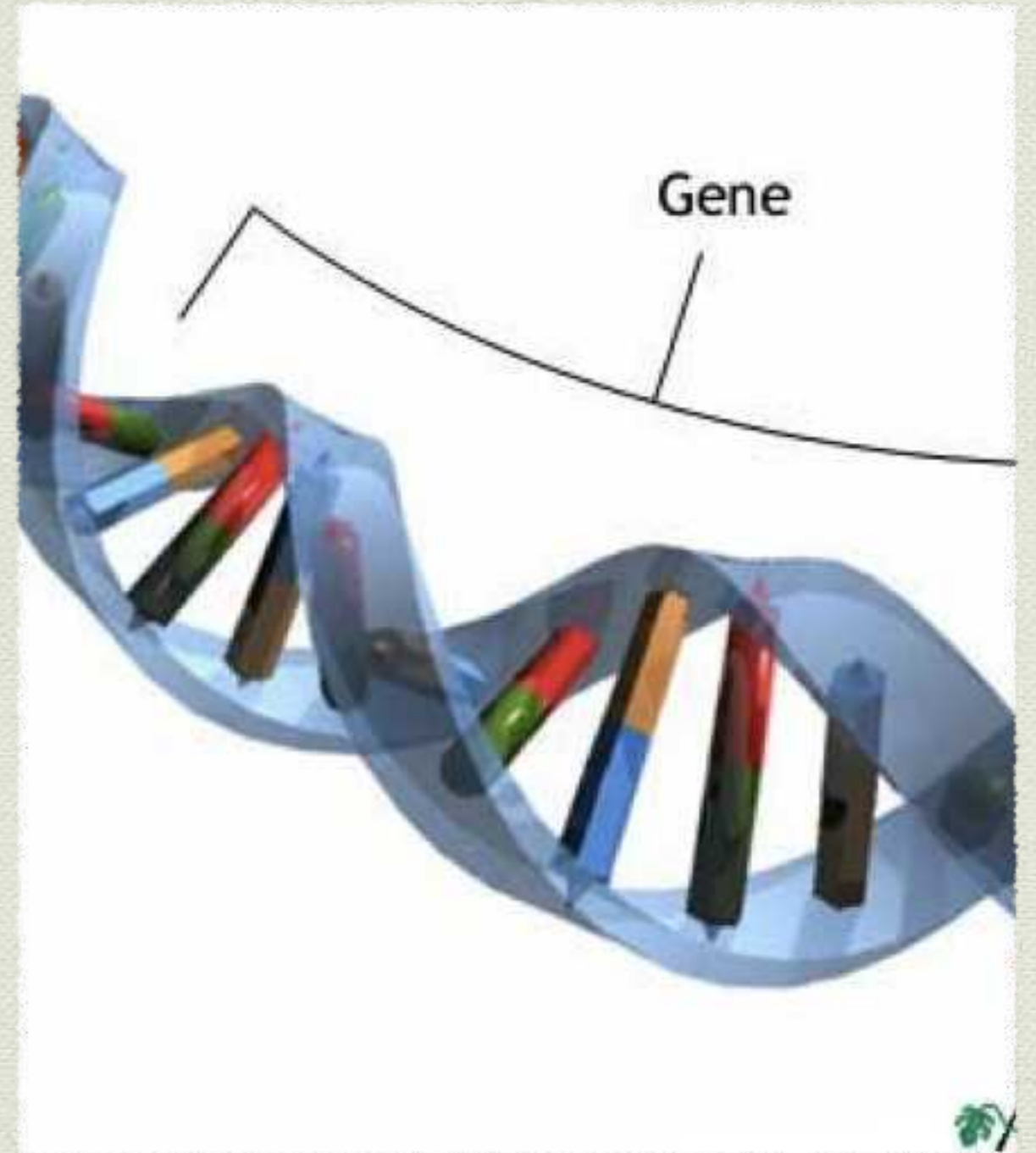
Como funciona o DNA Junção de nucleotídeos de base



Gene



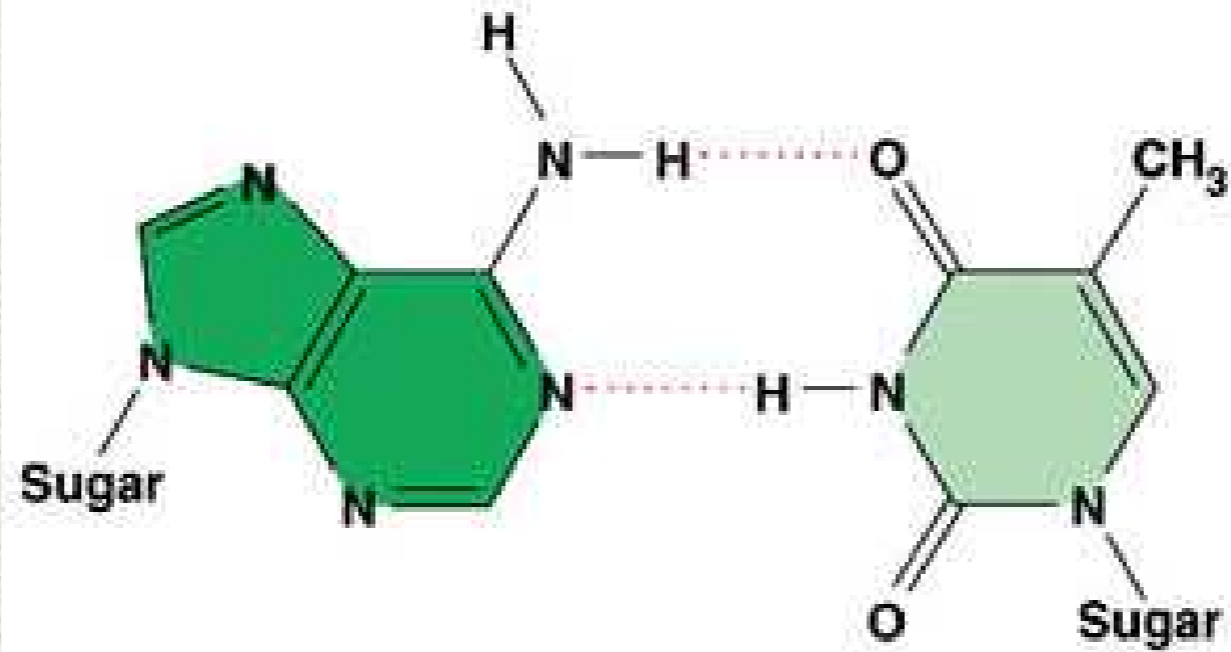
É cada sequência de DNA que corresponde a um código que formará uma proteína.



DNA

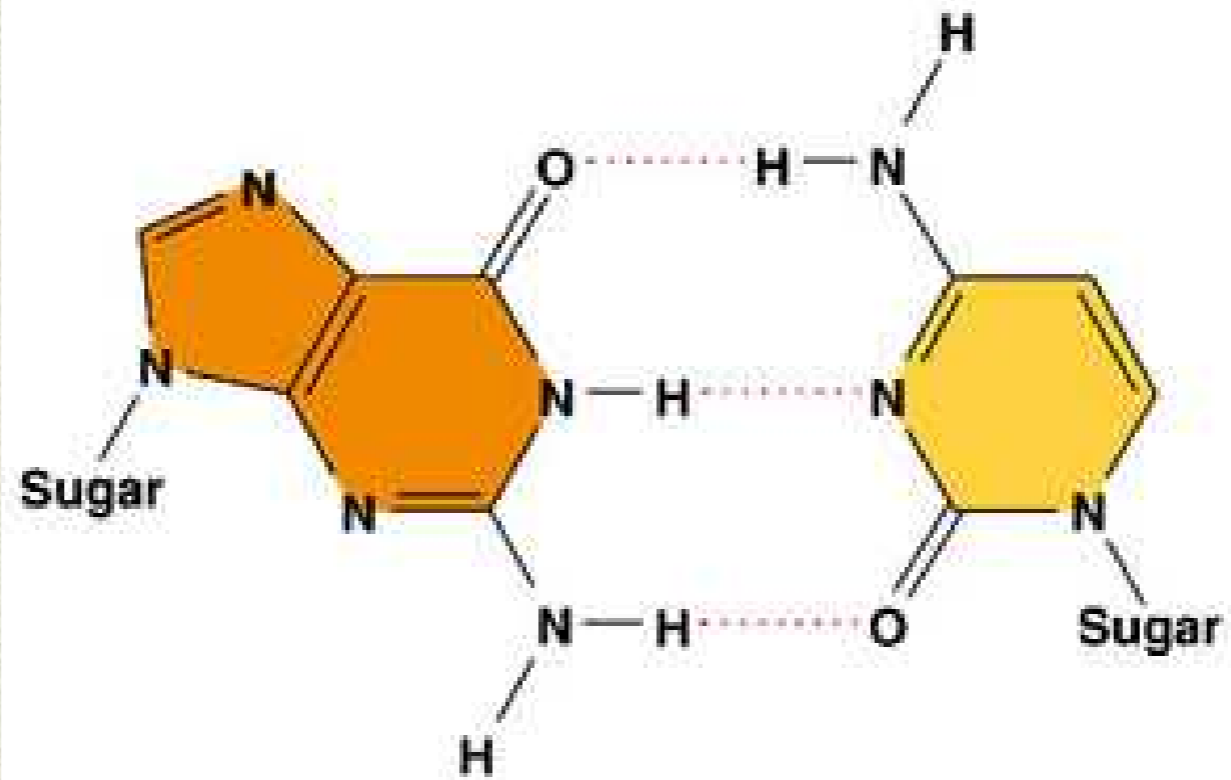


- ◆ Adenina se liga à Timina (2 pontes de H).
- ◆ Citosina se liga à Guanina (3 pontes de H).



Adenine (A)

Thymine (T)



Guanine (G)

Cytosine (C)

Exercício



- ◆ Um cientista ao analisar uma molécula de DNA, encontrou aproximadamente 21% de base nitrogenada Timina.
- ◆ Qual é o percentual de Guanina? Justifique.



DNA

RNA

Bases Púricas

Adenina (A)

Adenina (A)

Guanina (G)

Guanina (G)

Bases Pirimídicas

Citosina (C)

Citosina (C)

Timina (T)

Uracila (U)

Pentose

Desoxirribose

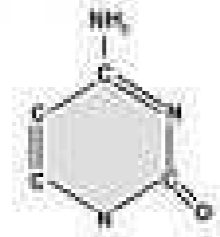
Ribose

Fita

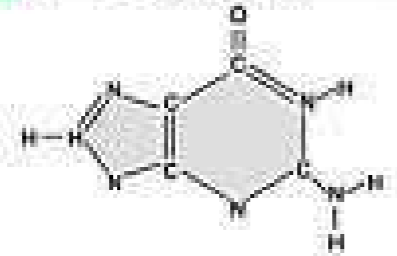
Dupla

Simples

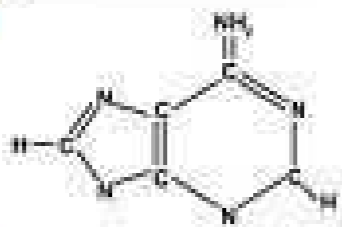
Citosina



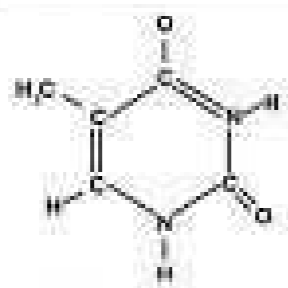
Guanina



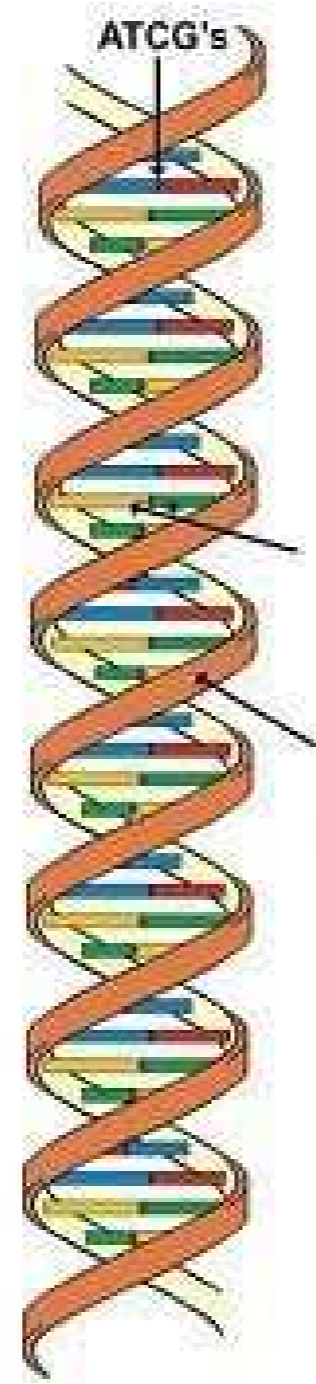
Adenina



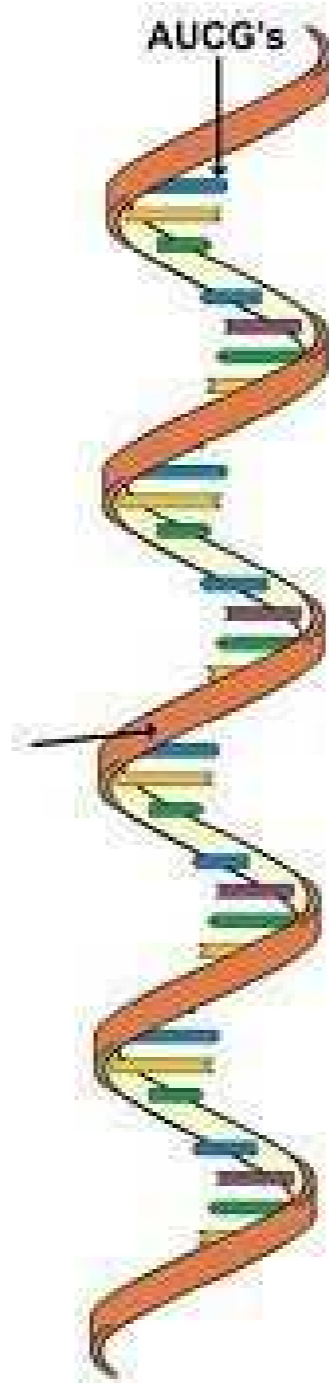
Timina



Bases Nitrogenadas

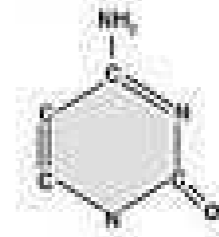


DNA

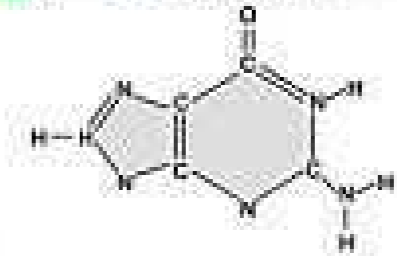


RNA

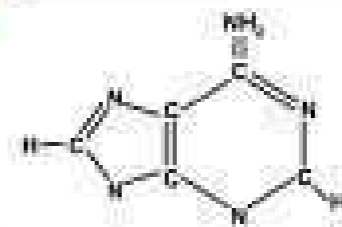
Citosina



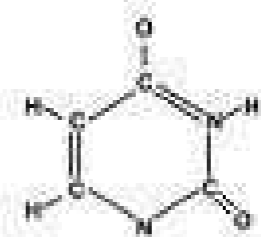
Guanina



Adenina



Uracila



Substitui a Timina no RNA

Bases Nitrogenadas



Vitaminas

Ver tabela do livro, p. 128

O balancê das vitaminas.

Ritmo: Balancê-balancê

Sem a **vitamina C**, o **escorbuto** vai pegar você;

E o **raquitismo** acontece porque?

Falta **vitamina D**.

Quando há **cegueira noturna**,

Falta **vitamina A**.

Quando há **hemorragia**,

falta **vitamina K**.

Sem a **vitamina E**, o ratinho **não vai ter nenê**.

E o **beriberi**, acontece porque:

Falta **vitamina B (um)**

Falta **vitamina B (um)**.

hey!



/belan.biologia



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