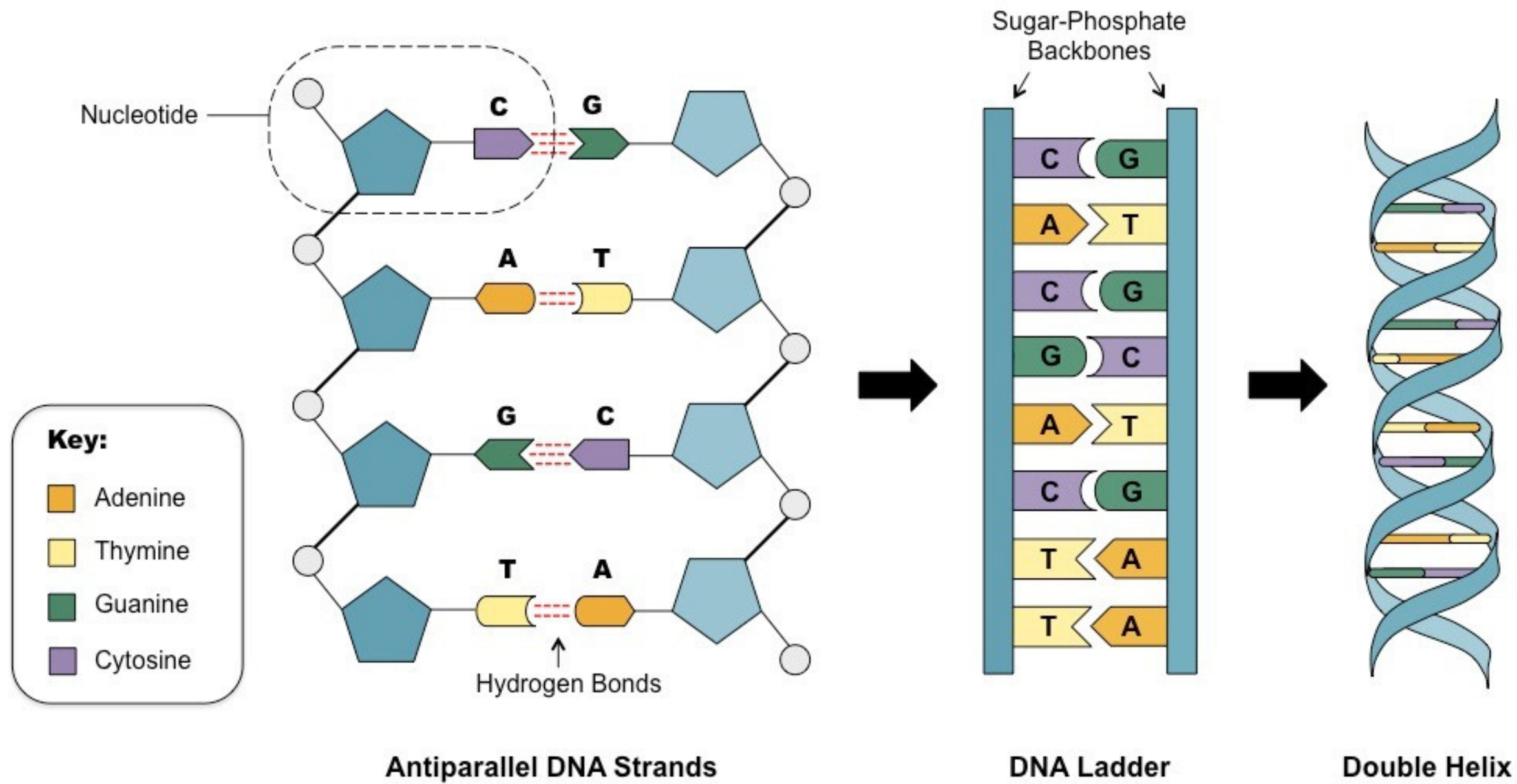
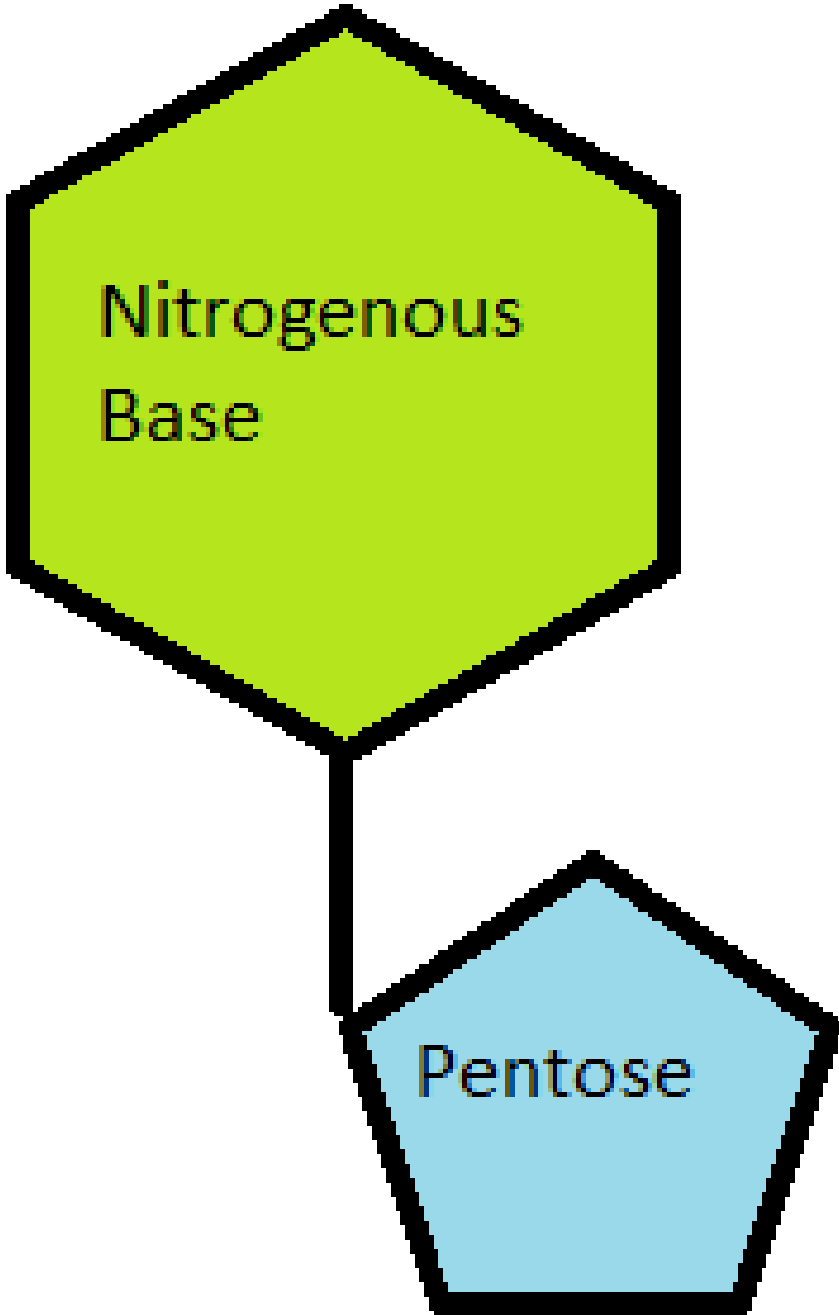


DNA

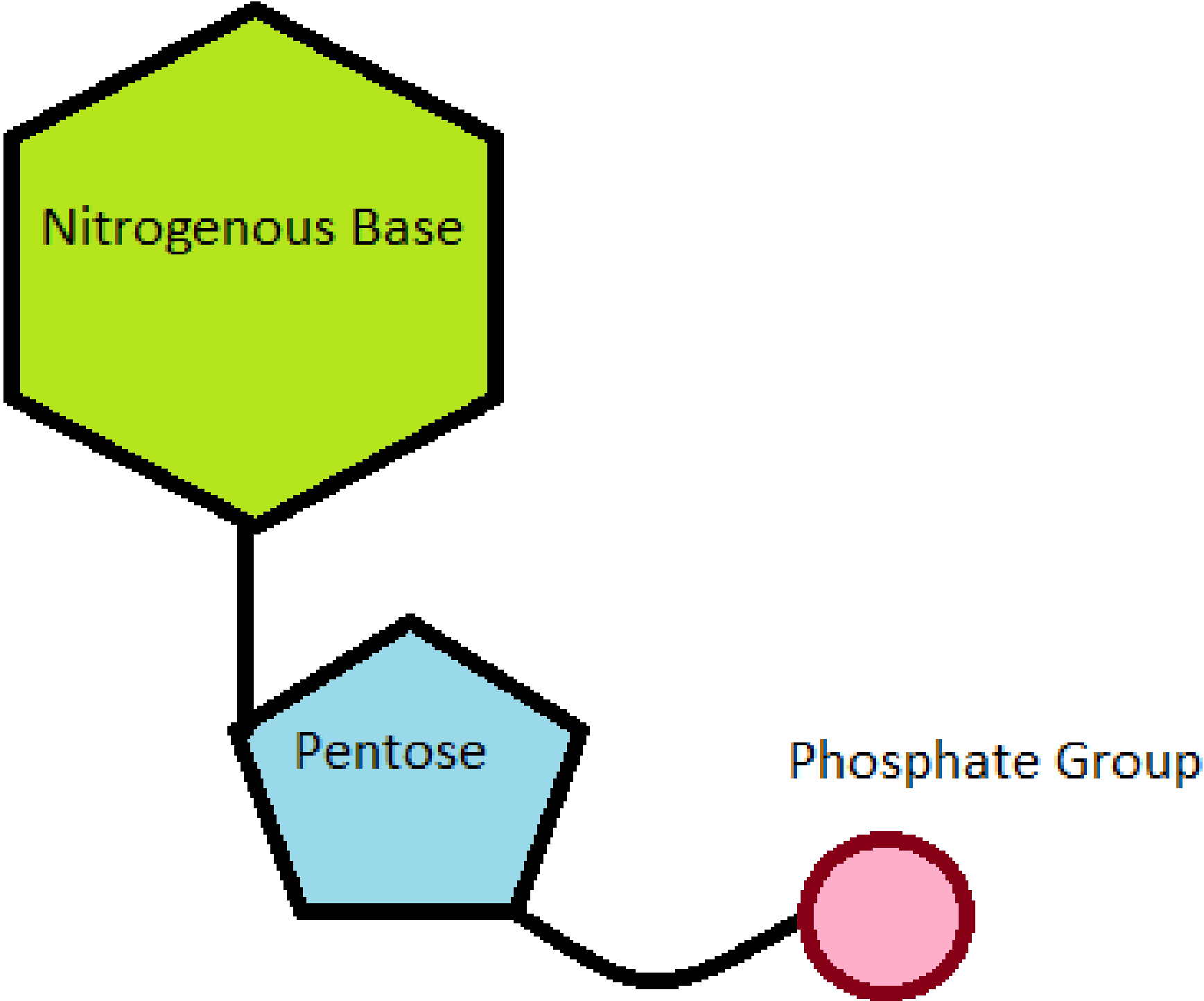
Di-oxy ribonucleic acid

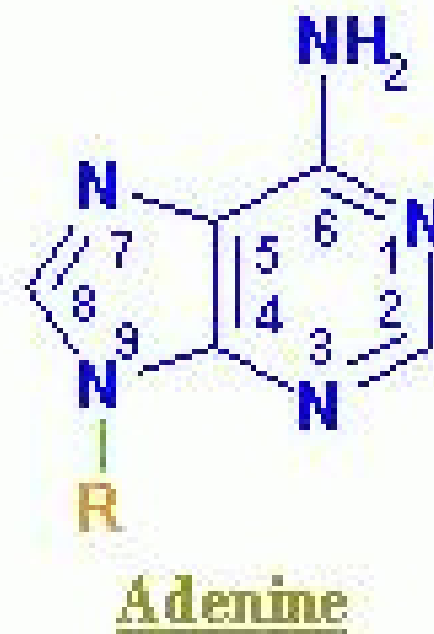
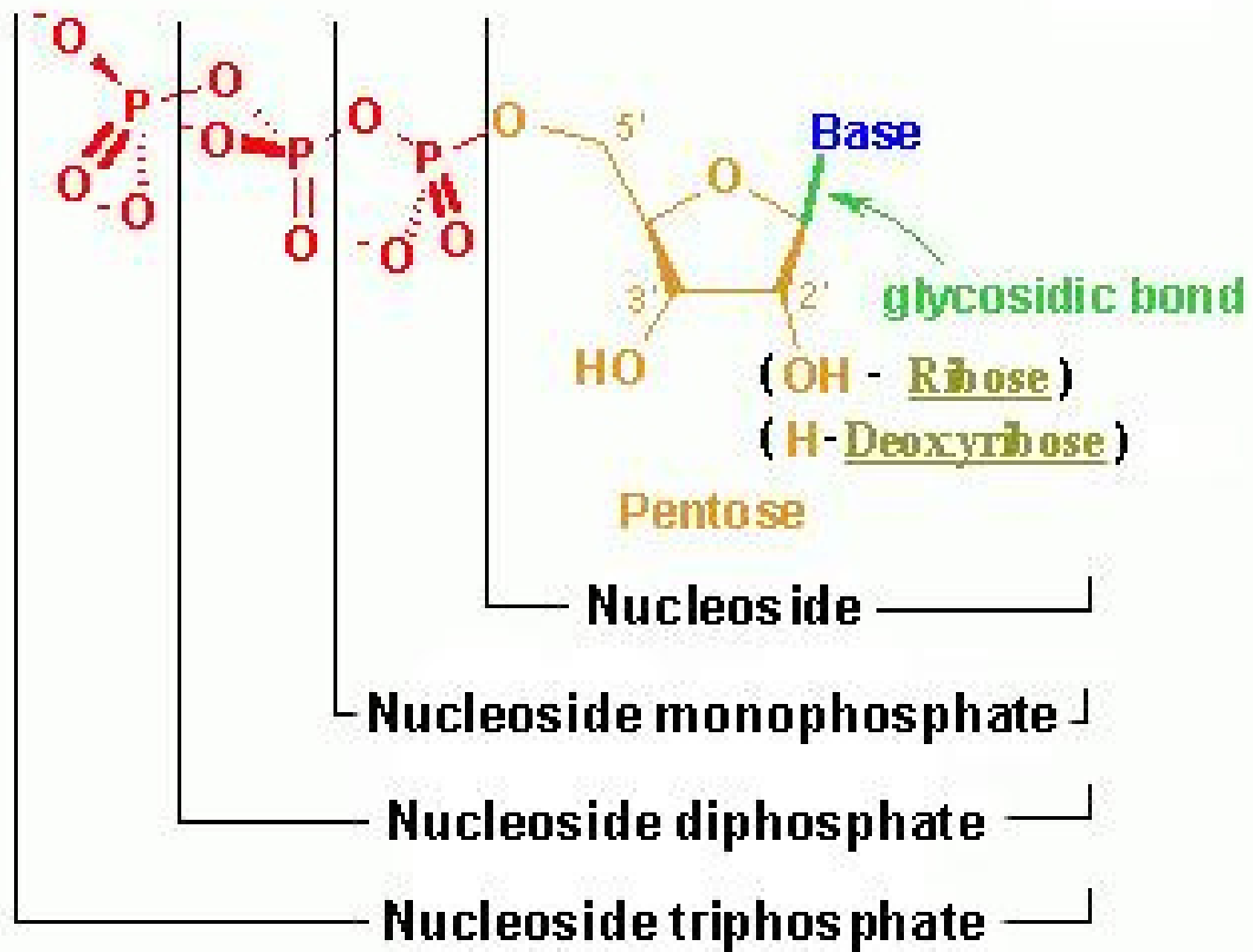


Nucleoside

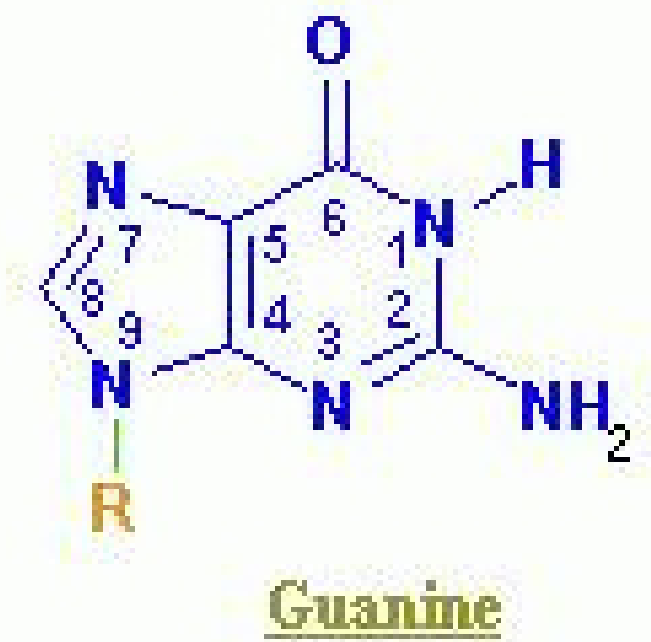


Nucleotide

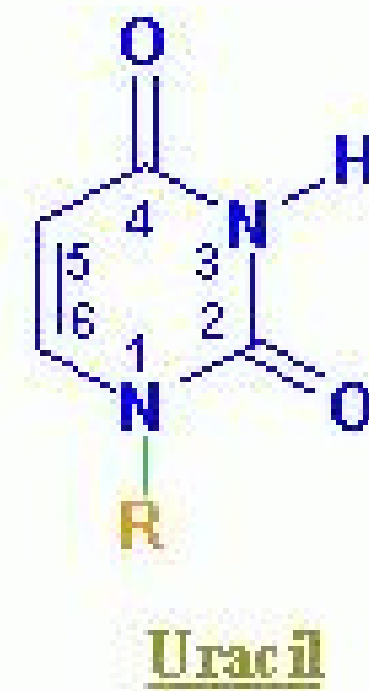
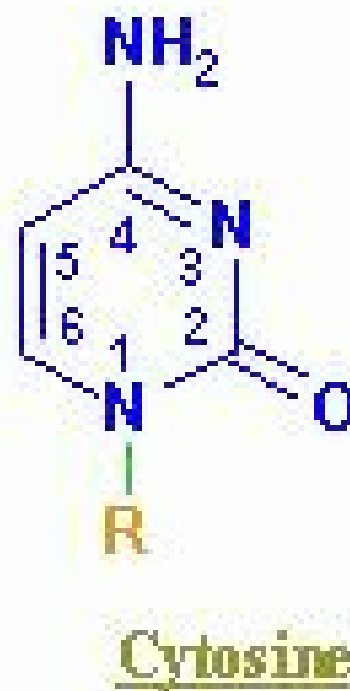


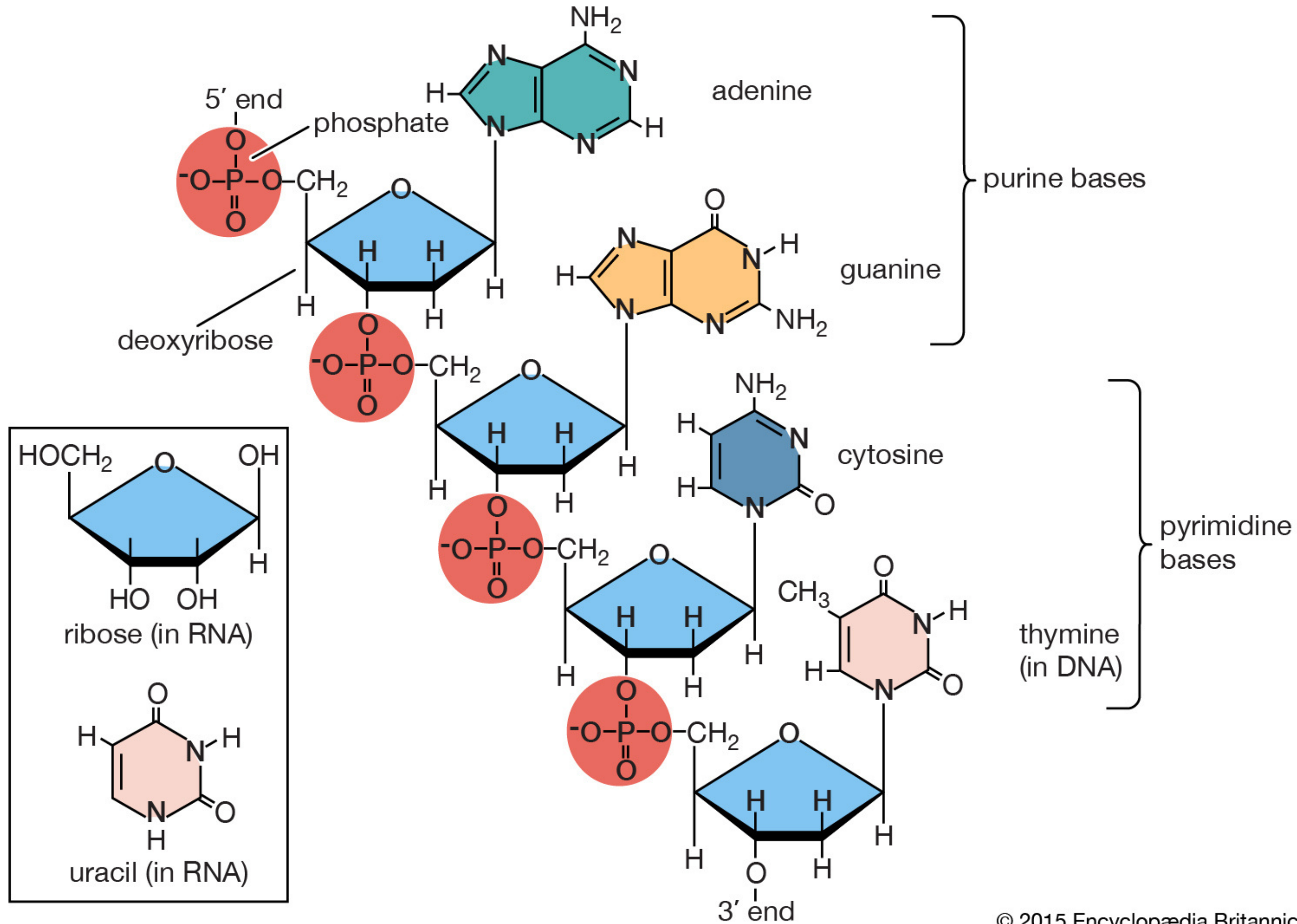


Purines



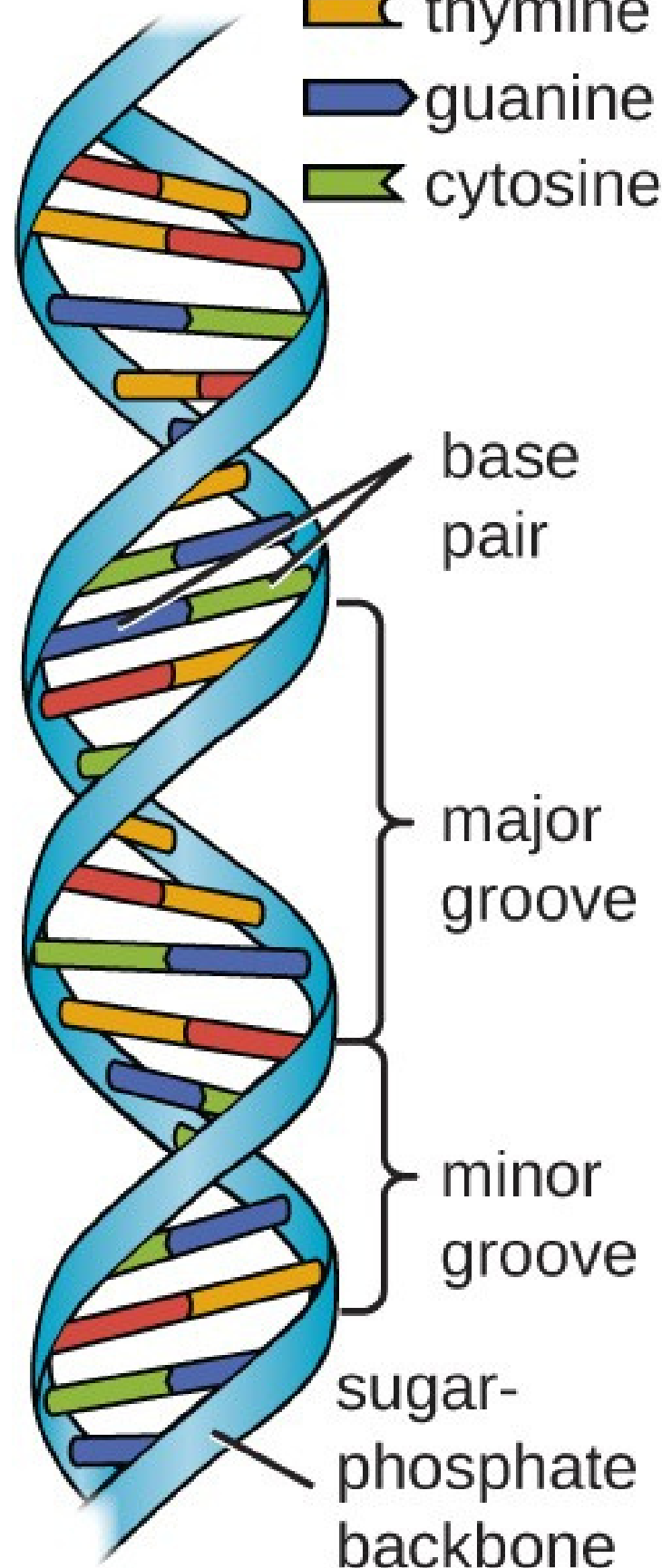
Pyrimidines



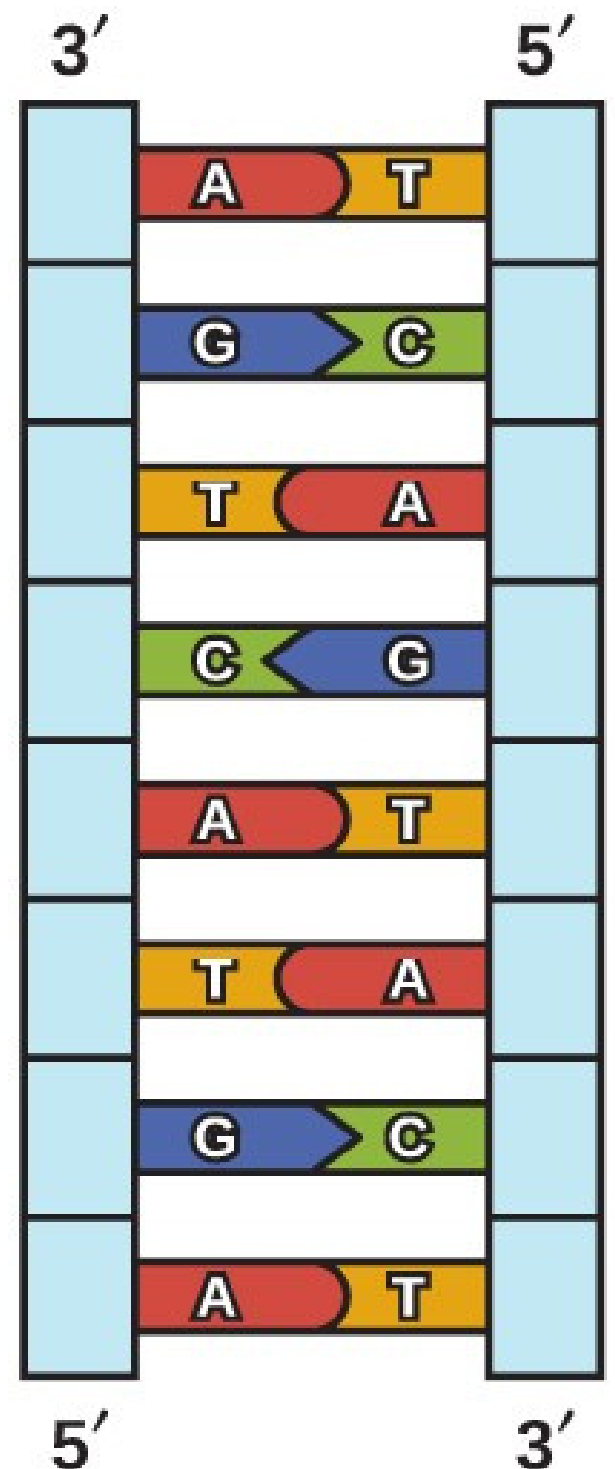


nitrogenous bases:

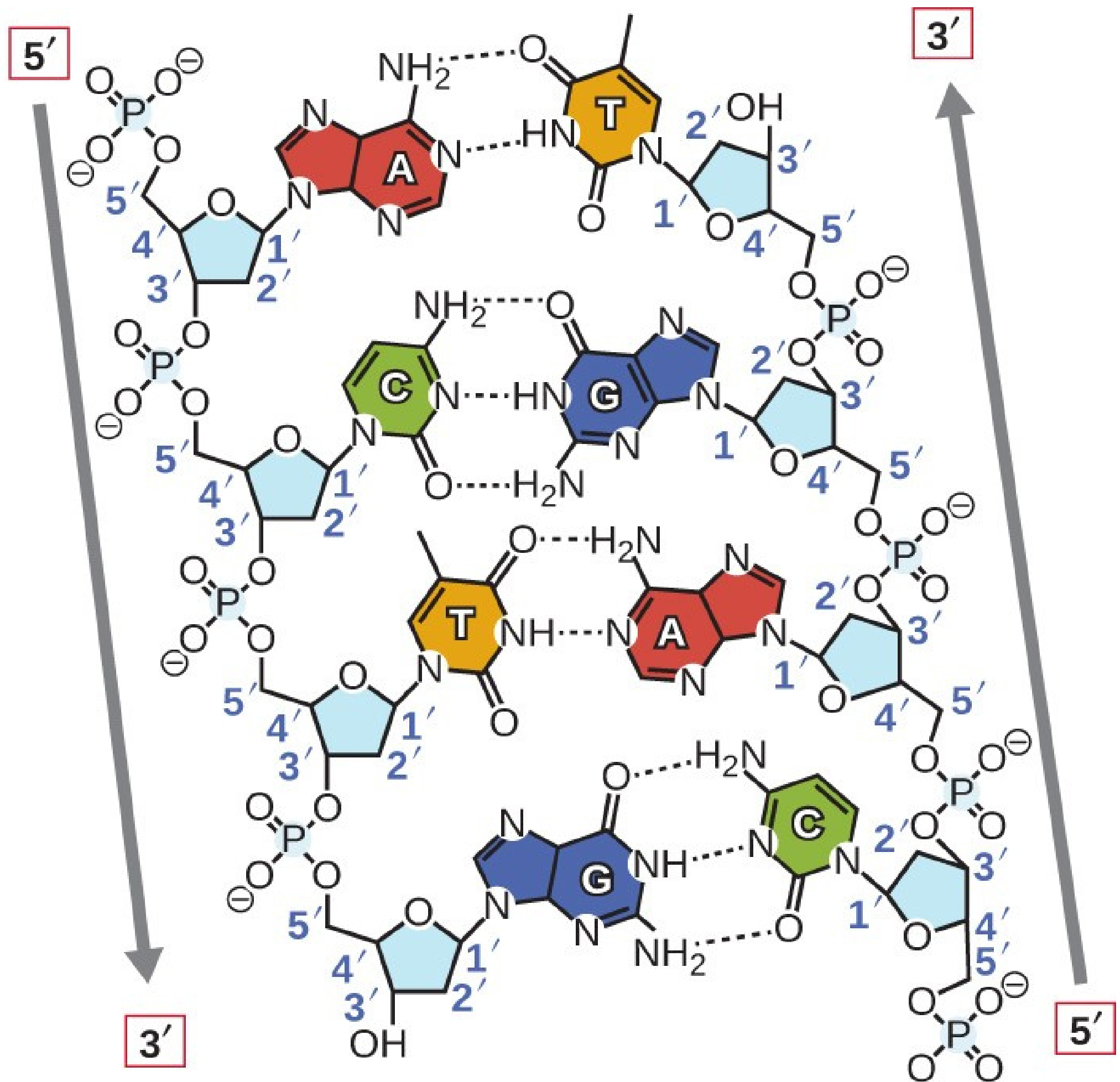
- adenine
- thymine
- guanine
- cytosine



(a)

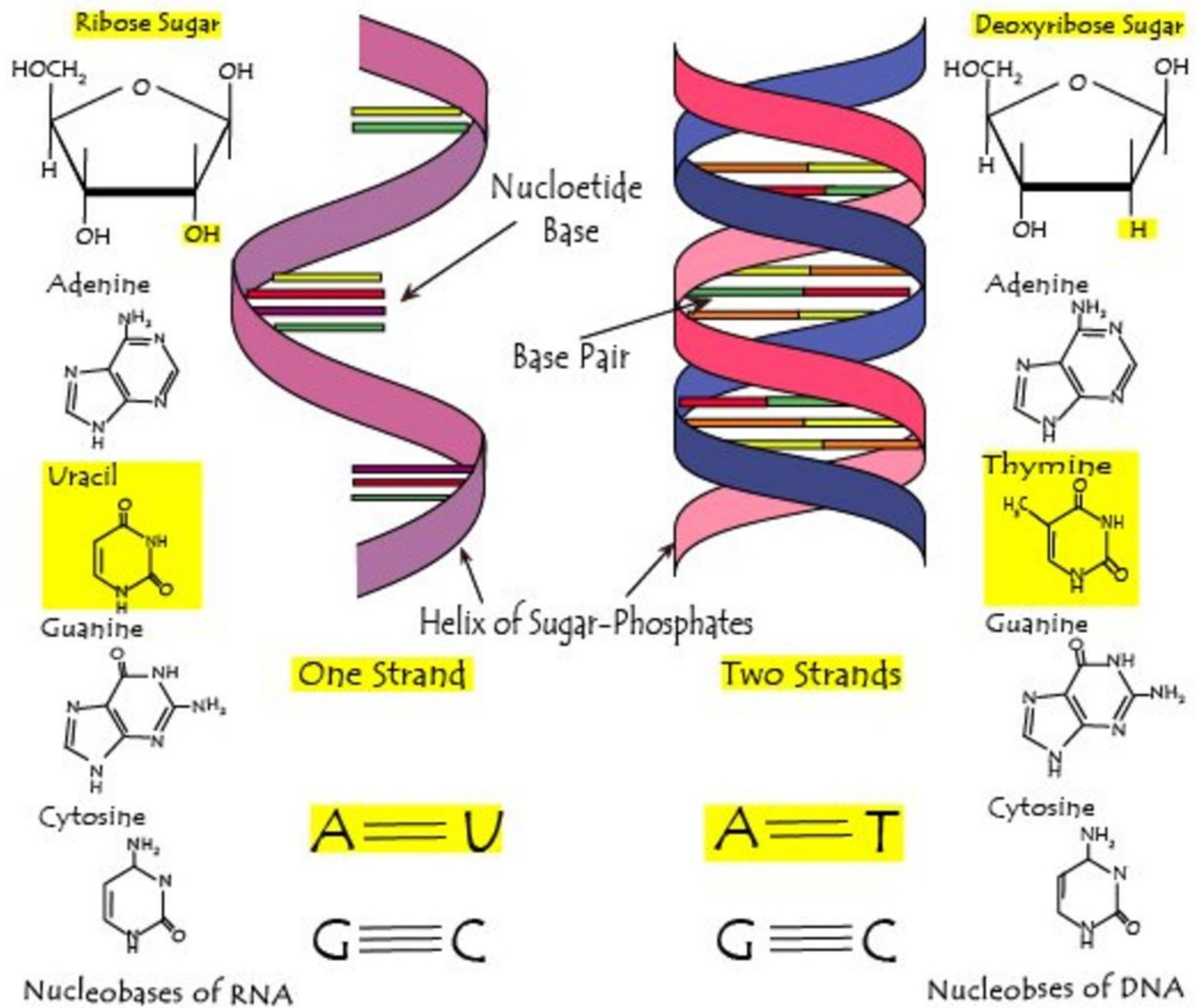


(b)

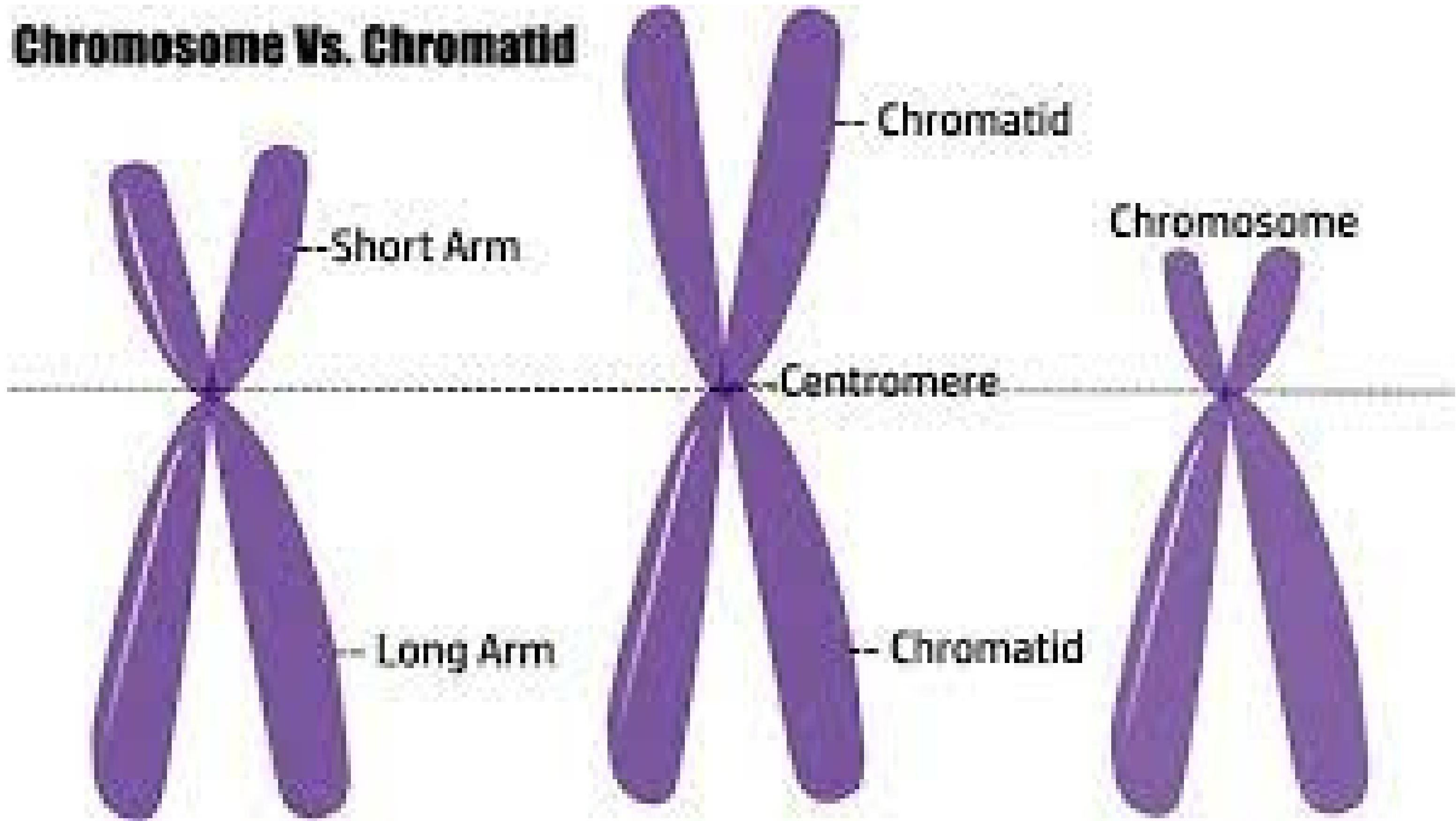


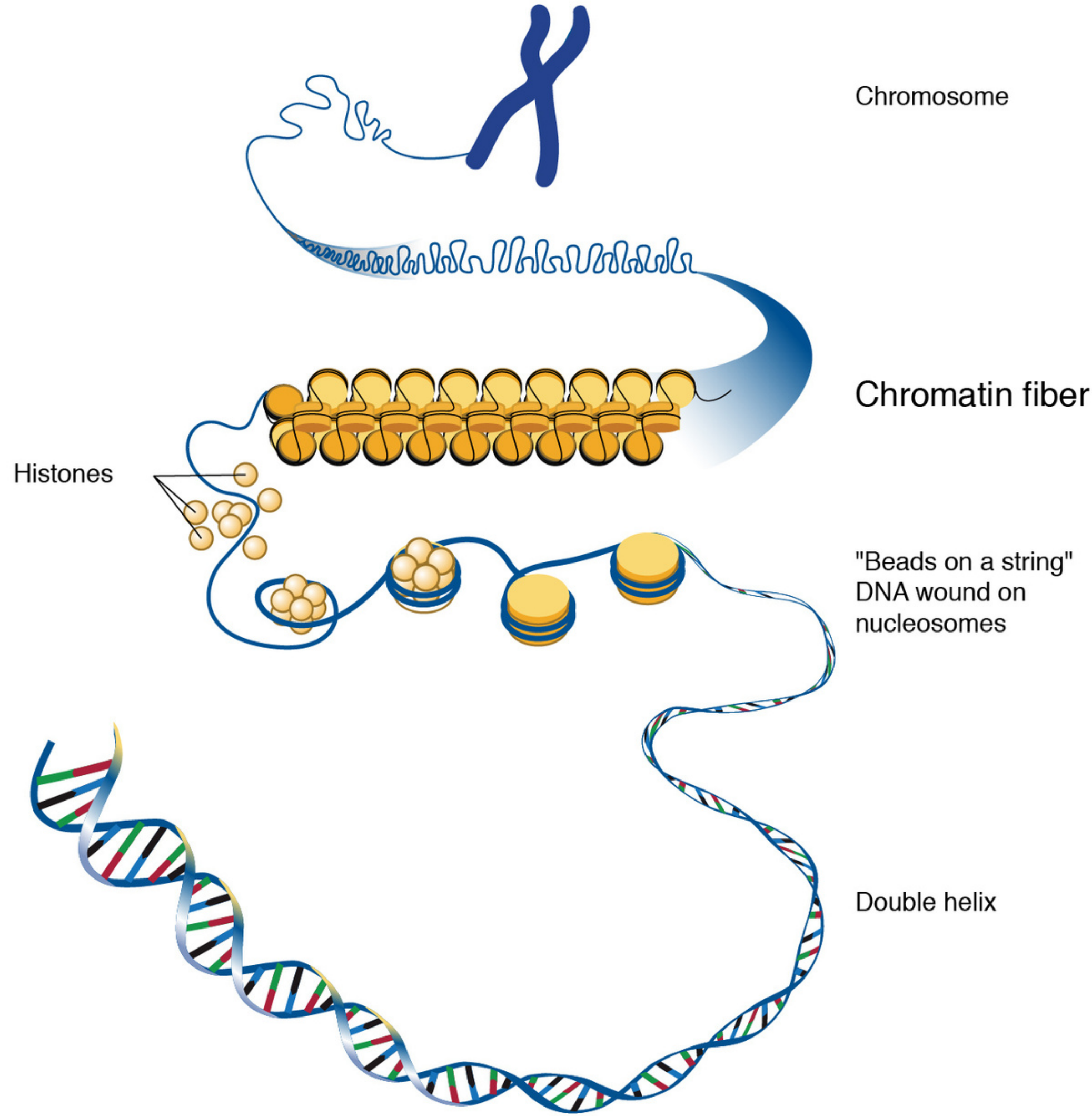
(c)

RNA vs DNA



Chromosome Vs. Chromatid





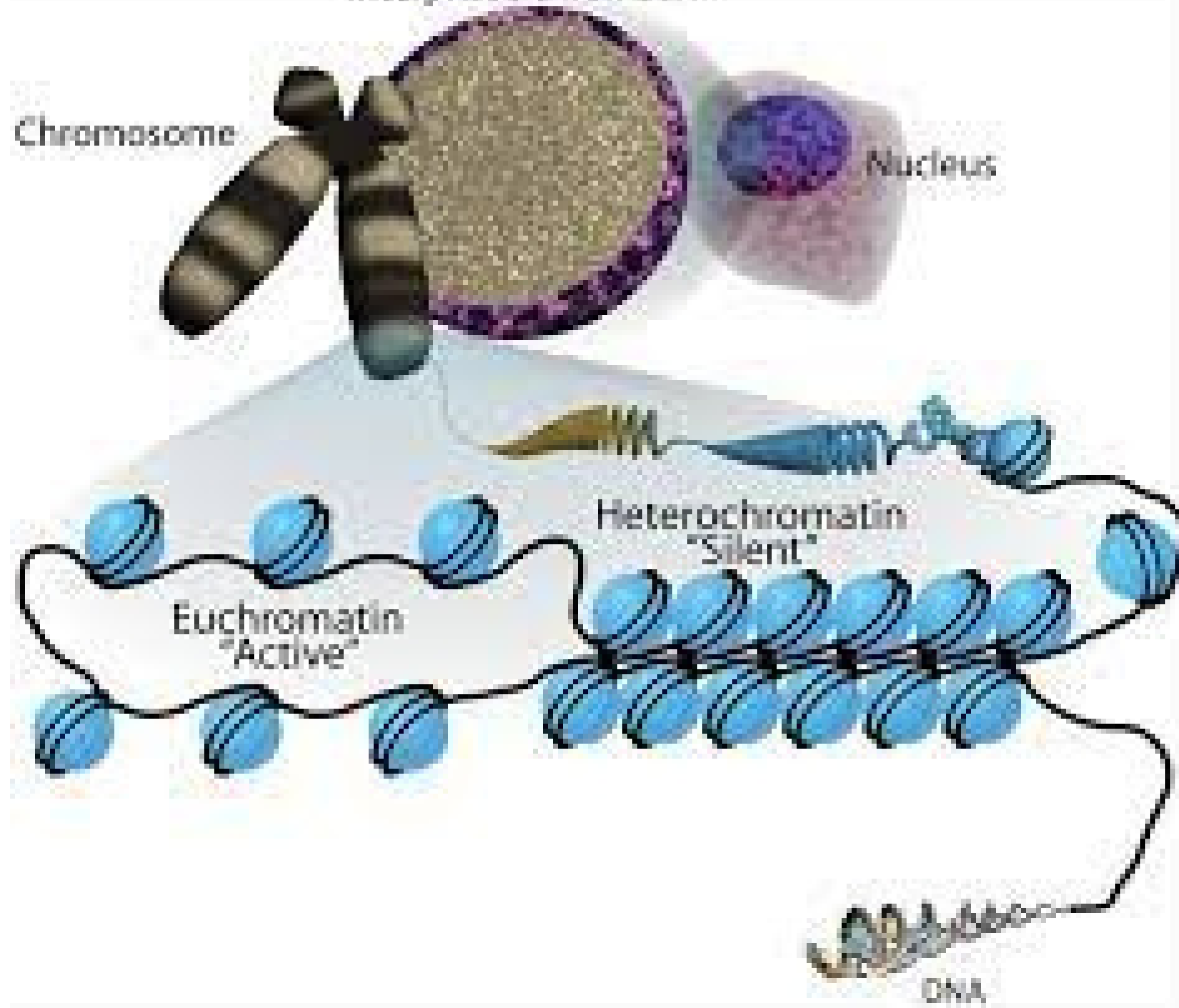
Chromosome

Chromatin fiber

"Beads on a string"
DNA wound on
nucleosomes

Double helix

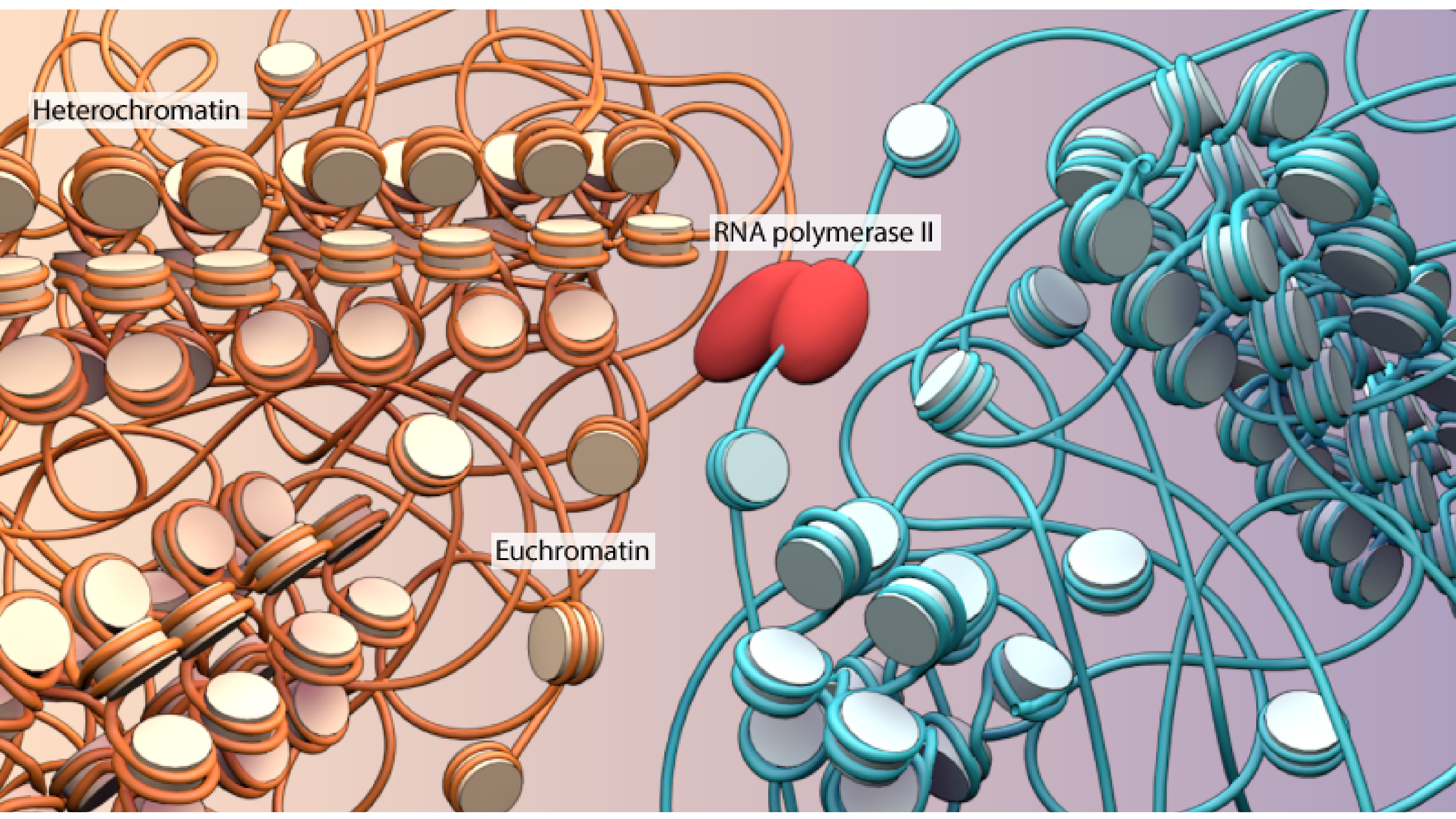
Interphase chromatin



Heterochromatin

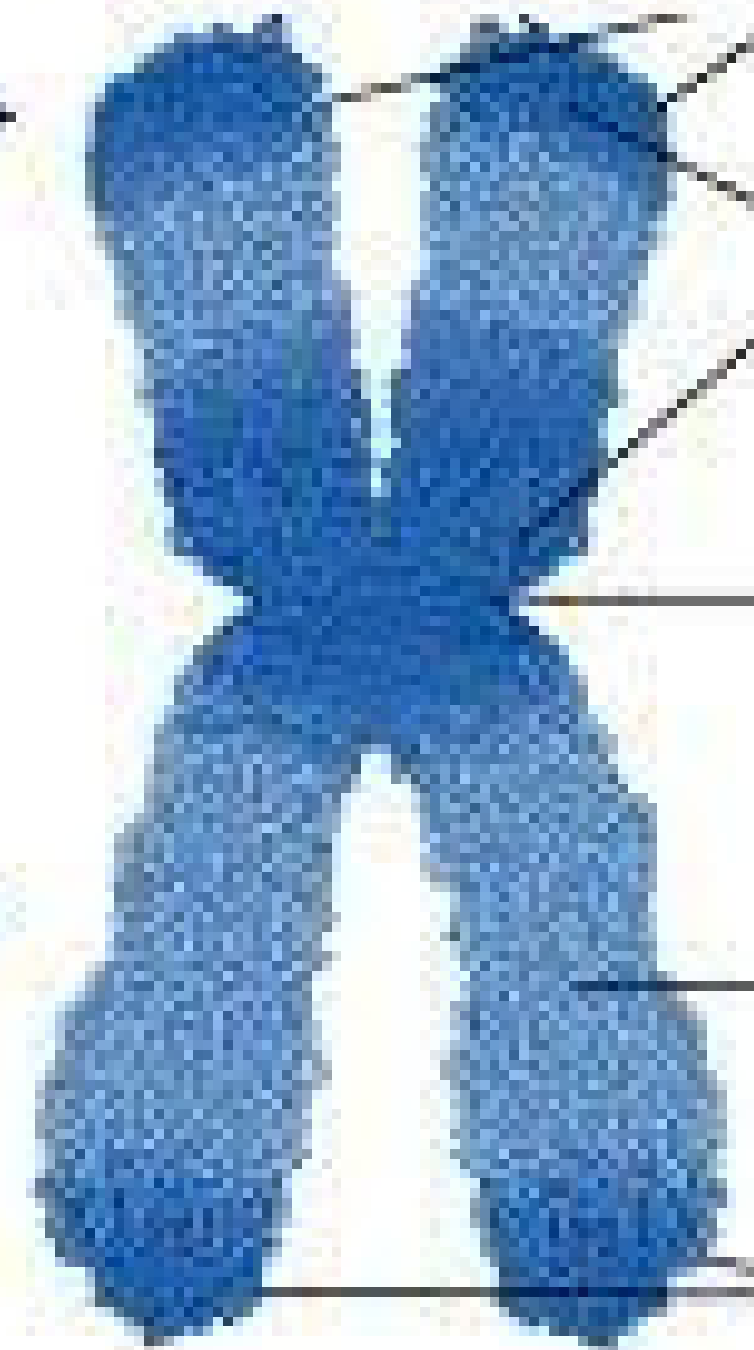
RNA polymerase II

Euchromatin

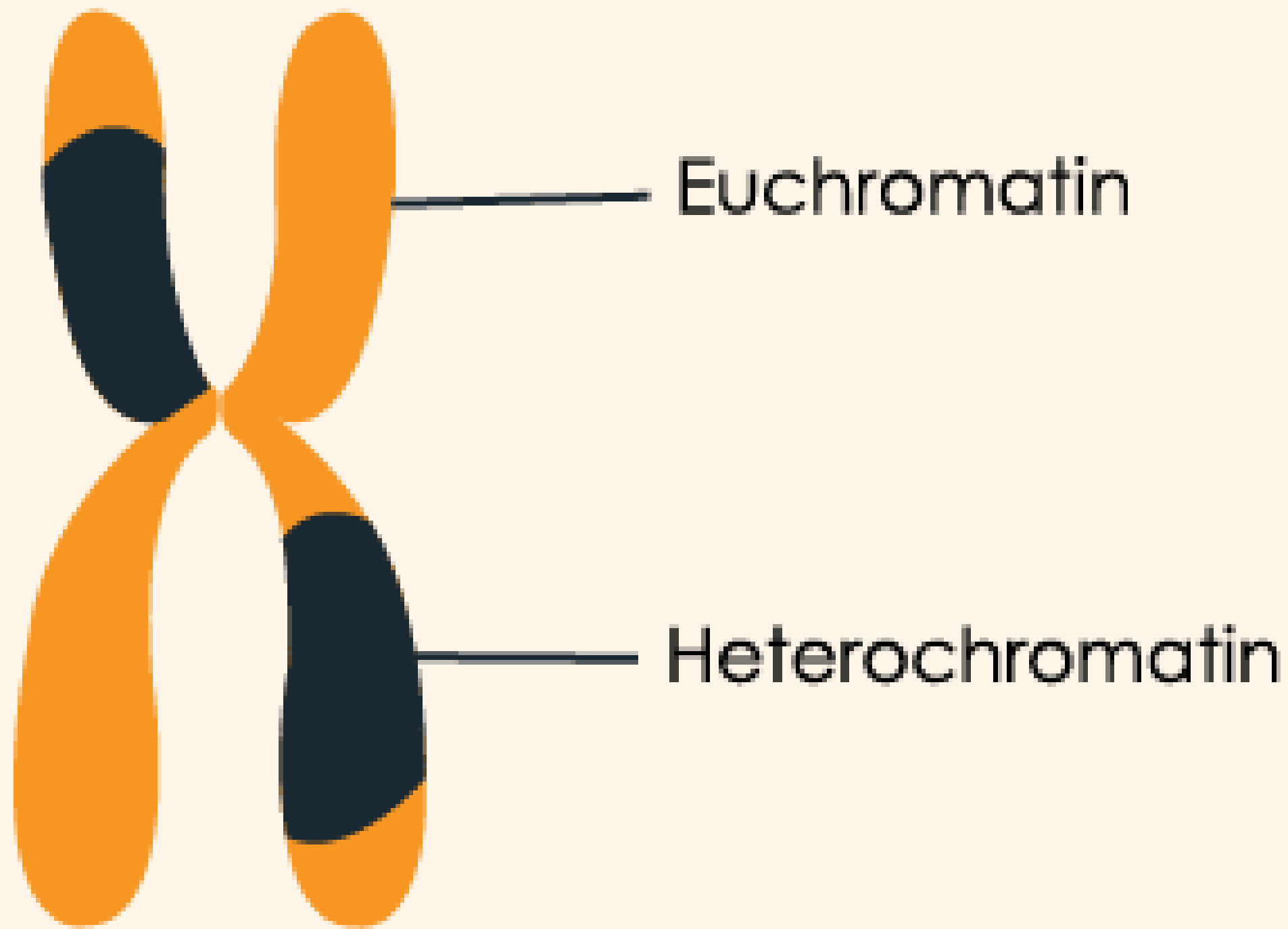


Chromosome Parts:

- **Heterochromatin:** →
 - More condensed
 - Silenced genes (methylated)
 - Gene poor (high AT content)
 - Stains darker
- **Euchromatin:** →
 - Less condensed
 - Gene expressing
 - Gene rich (higher GC content)
 - Stains lighter



Heterochromatin and Euchromatin



Euchromatin

euchromatin has loose chromatin structure and active for transcription.

Heterochromatin

Heterochromatin has condensed chromatin structure and is inactive for transcription.