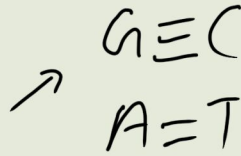


The Watson Crick Model

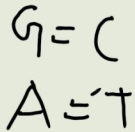
x ray diffraction

- Double helical structure.
- Right handed B form DNA.
- Complementary base pairing.



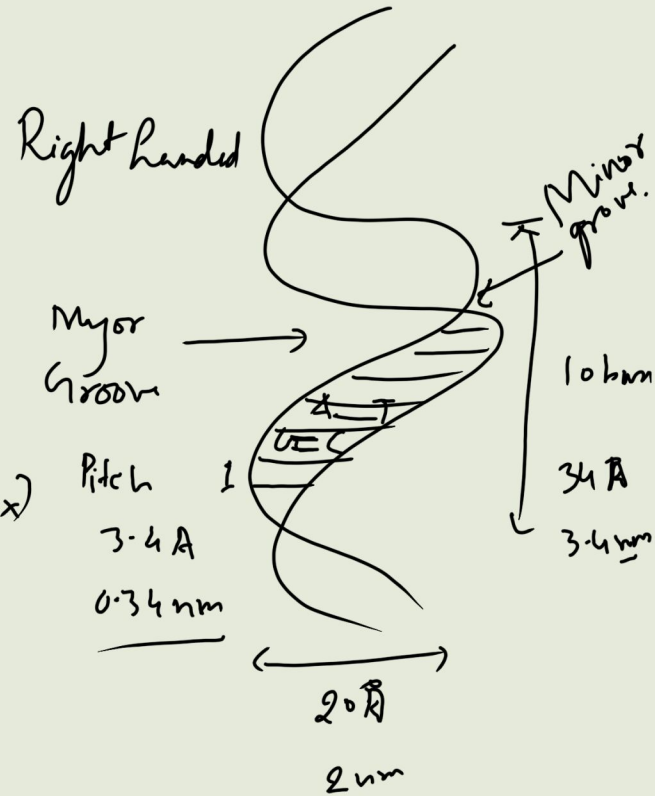
DNA (double helix)

Chargaff's Rule



$$\begin{aligned} G + A &= C + T \\ Purine &= Pyrimidine \end{aligned}$$

$$\begin{aligned} 37\% &= C \\ 37\% &= G \\ 13\% &= A \quad T = 13\% \end{aligned}$$



	A form	B form	Z form.
Helical Structure	Right handed	Right handed	Left handed.
Diameter	26 Å	20 Å	18 Å
Base pair per helix Turn	11	10.5	12
Helix rise per base pair	2.6 Å	3.4 Å	3.7 Å
Sugar pucker conformation	3' endo	2' endo	2' endo ^{C T} pyrimidine 3' endo purine
Glycosyl bond conformation	Anti	Anti	Anti for ^{G A} Pyrimidine Syn for Purine

