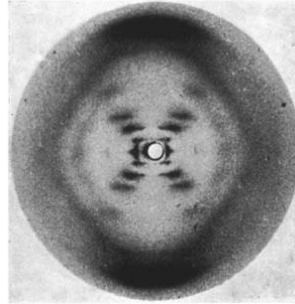
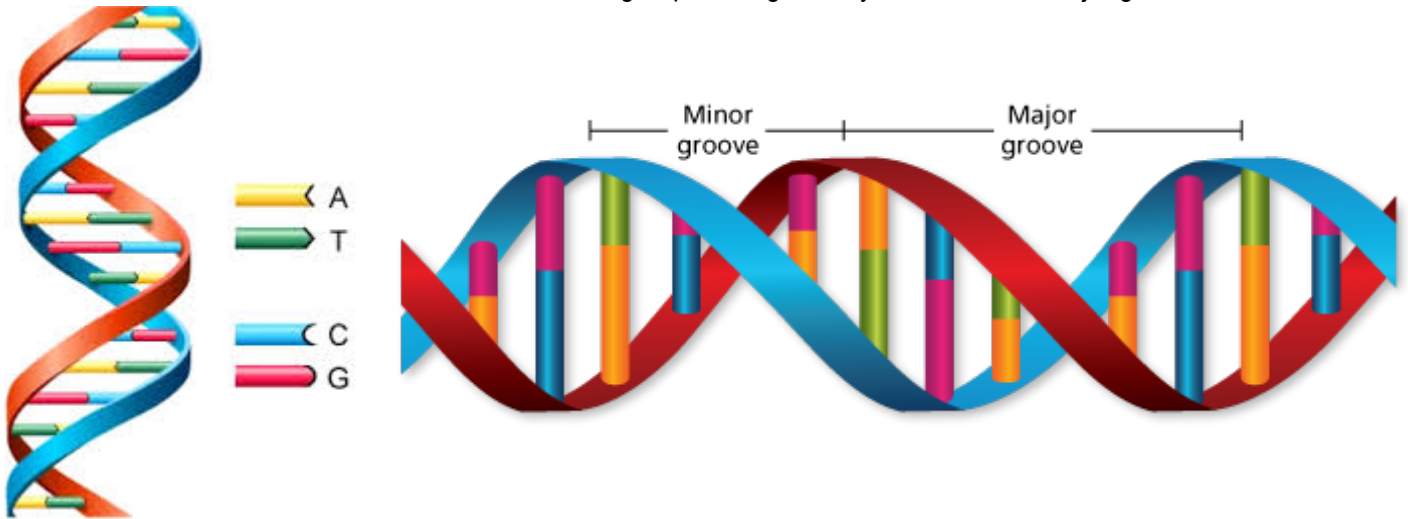


CONCEPT: NUCLEIC ACIDS

- Chargaff's rules – a series of rules about the composition of DNA, used by Watson and Crick to determine DNA structure
 - In a double stranded molecule of DNA, $\%A=\%T$ and $\%G=\%C$, likewise $\%A+\%G=\%T+\%C$
- Watson and Crick also used the X-ray crystallography image from Rosalind Franklin
 - This image showed the structure to be simple, and have substituents 3.4 Å apart



- The structure of DNA is called a _____.
 - It contains a major and minor groove, allowing degrees of access to the nucleobases
 - Proteins bind DNA via H-bonds with their R groups, and generally use either the major groove



- The structural bonds of DNA are all single bonds, so the molecule is quite flexible
 - Nucleotides can have two conformations, but most DNA is in the anti conformation

