

**Nucleoside (sugar + nitrogen containing base):**

**Structure of DNA:**

In 1953 James Watson and Francis crick, based on the X-ray diffraction data produced by Maurice Wilkins and Rosalind Franklin, proposed a very simple but famous and universally accepted double helix model for the structure of DNA. The silent features of double helix structure of DNA are listed below.

**Fig.: Double helix model of DNA molecule**

**Structure of RNA:**

RNA is a polynucleotide and RNA nucleotides have ribose sugar, which participate in the formation of sugar phosphate backbone of RNA. Thymine is absent and is replaced by uracil. Usually RNA is a single stranded structure. Single stranded RNA is the genetic material in most viruses E.g. - TMV. Double stranded RNA is also found to be the genetic material in some organisms. E.g. - Plant wound and tumor viruses.

**Types of RNA:**

There are three main types or forms of RNA.

1. Messenger RNA(m-RNA)
2. Ribosomal RNA(r-RNA)
3. Transfer RNA(t-RNA)

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**2. Ribosomal RNA(r-RNA):**

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