

- * This selective pairing is called Complementary base pairing. A-T pairs forms 2 hydrogen bonds, while C-G pairs forms 3.
- * There are no hydrogen bonds present in RNA. Nucleic acids DNA and RNA have both phosphodiester and hydrogen bonds linking them. The phosphate group of the DNA and RNA get linked with the adjacent carbon atoms to form an ester linkage leading to the formation of a phosphodiester bond.
- * There exist weak hydrogen between the nitrogen bases in DNA and RNA. Recently, through a combination of direct experimental measurements on DNA and RNA and ab initio calculations, it was $N_3-H_2 \dots N$ bond.

What are the complementary bases present in DNA:-

In DNA, the complementary bases are adenine and guanine, thymine and cytosine. Each nucleotide in DNA is composed of a nitrogen containing base, either guanine (G), adenine (A), thymine (T) or cytosine (C) as well as a monosaccharide sugar called deoxyribose and a phosphate group. In nucleotide joined by covalent bonds between the sugar of one nucleotide and the phosphate of the next, resulting in an alternating sugar-phosphate backbone. According to base pairing rules [A with T with C with G], hydrogen bonds bind the nitrogenous bases of the two separate polynucleotide strands to make double-stranded DNA.