

- Two H bonds form between T and A (DNA) or U and A (RNA)
- DNA is double stranded in most cells and viruses
 - The two strands are complementary
 - The two strands are antiparallel
- Nucleic acid function
 - DNA is genetic material of all organisms and of many viruses
 - Carries instructions for synthesizing RNA and proteins
 - Controls synthesis of all molecules in an organism

Comparison of Nucleic Acids

Characteristic	DNA	RNA
Sugar	Deoxyribose	Ribose
Purine nucleotides	A and G	A and G
Pyrimidine nucleotides	T and C	U and C
Number of strands	Double stranded in cells and in most DNA viruses; single stranded in parvoviruses	Single stranded in cells and in most RNA viruses; double stranded in parvoviruses
Function	Genetic material of all cells and DNA viruses	Protein synthesis in all cells; genetic material of RNA viruses