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## **DNA- Deoxyribonucleic acid**

It is a biomolecule made out of two long, twisted strands, containing complementary genetic information. These strands of DNA holds the blueprint for all the living organisms.

DNA was discovered in the year 1869 by the Swiss biologist Johannes Friedrich Miescher. The complete structure of the DNA molecule resembles a ladder which is twisted at both the ends and is composed of nucleotides – sugar, phosphate groups, and nitrogen bases. DNA is the genetic material, which is involved in carrying the hereditary information, replication process, mutations, and also in the equal distribution of DNA during the <u>cell division</u>.

The difference between DNA and gene are summarized below

Difference between Gene and DNA	
Gene	DNA- Deoxyribonucleic acid
Genes are the DNA stretches which encode for specific proteins.	DNA is a biomolecule, which contains genetic information
Regulates the traits of an organism.	Regulates gene regulation.

Gene is a specific sequence present on a short stretch of DNA.	DNA made up of two long chains of polynucleotides wound together
Genes are made up of either DNA or RNA.	DNA is a polymer of nucleotides
A gene is located on a chromosome.	DNA is located within the nucleus of the cell.
Are coded with heredity information.	Encodes the genetic instructions.

In conclusion, the difference between DNA and gene is quite apparent. DNA is present on the genes, which make up the functional unit of heredity.