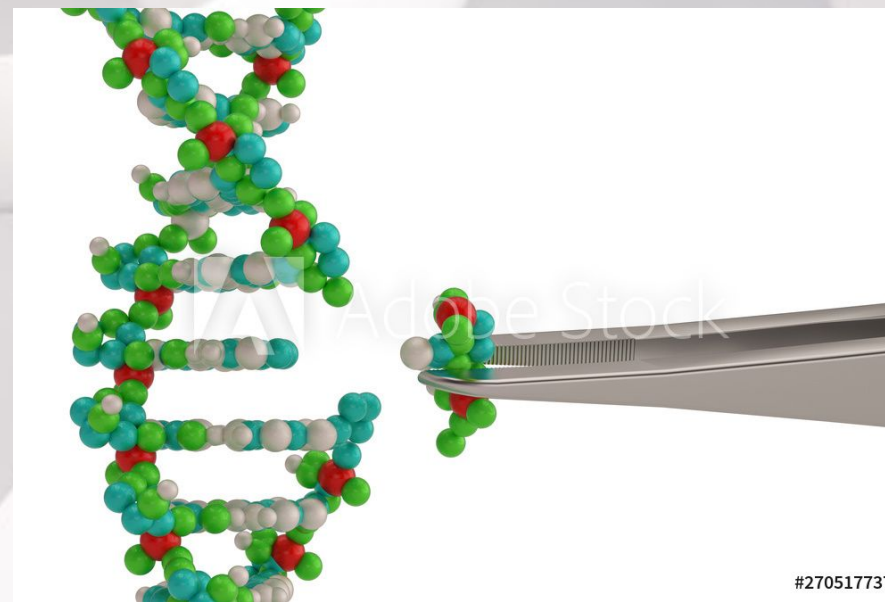


DNA

What is DNA? Deoxyribonucleic acid better known as DNA, is in all humans and almost all living organisms. Every cell in each individual's body carries the same DNA. DNA is located in the cell nucleus, but a small amount is also found in the mitochondria. DNA information is stored as a code made up of four chemical bases: adenine (A), guanine (G), cytosine (C), and thymine (T).



DNA consists of chemical building blocks which are called nucleotides. These building blocks are composed of three parts: a group of phosphates, a group of sugars and one of four nitrogen bases. Nucleotides are joined into chains to form a strand of DNA, alternating the phosphate and the sugar groups.



DNA provides the information an organism requires to grow, live and replicate. In order to perform these tasks, DNA sequences have to be converted into messages that can be used to create proteins, which are the complex molecules that do much of the work in our bodies.

For all living things—including plants—DNA is essential. It's essential for life and its processes for inheritance, protein coding and the genetic instruction guide. DNA contains instructions for the growth and replication of an organism or each cell, and ultimately death.

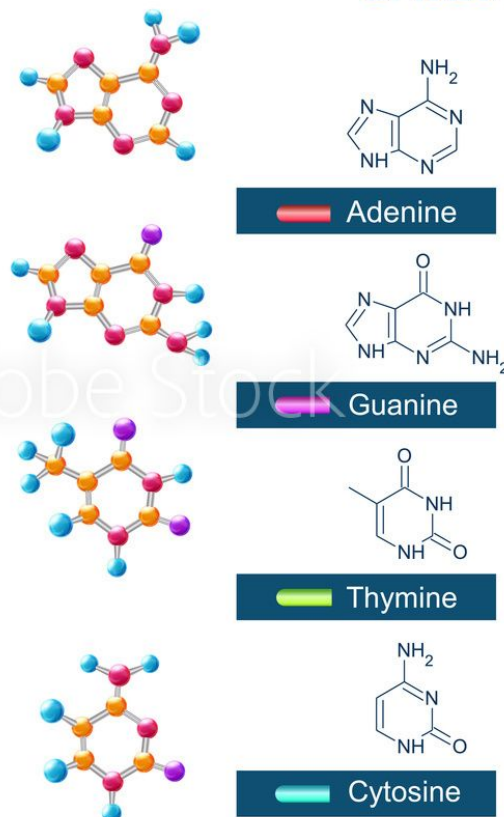
In addition to protein coding, DNA replicates, too. This aids in the preservation and development of cells, tissues, and body structures in a number of ways like reproduction.



As for heredity, DNA is essential. It stores all the genetic knowledge and carries it on to the generation to come. The basis for this lies in the fact that DNA produces genes and genes make chromosomes.

DNA

NITROGENOUS BASES



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