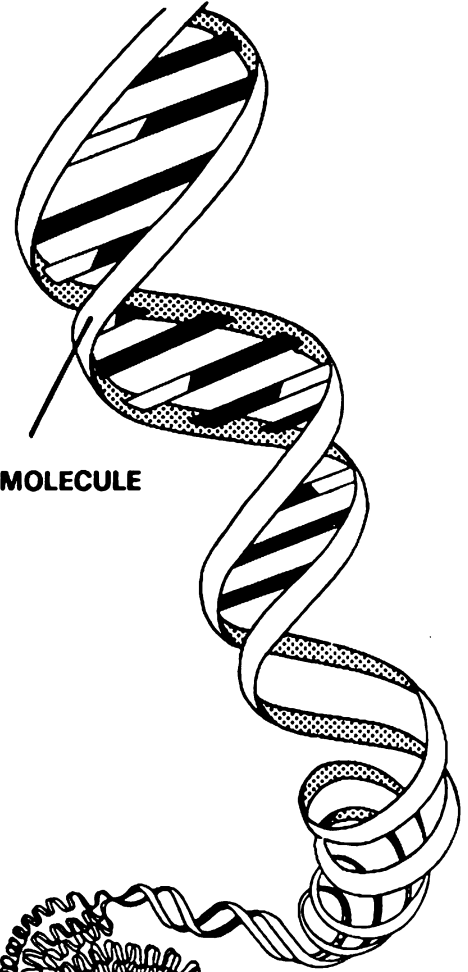


THE DNA MOLECULE

Deoxyribonucleic acid (DNA) is a double-stranded helix found within the chromosomes, which are located inside the nuclei of every living cell. The molecule consists of just four nucleotide units, one containing adenine, one guanine, one cytosine, and one either thymine (in DNA) or uracil (in RNA). The sides of the helix consist of alternating deoxyribose sugars and phosphates.

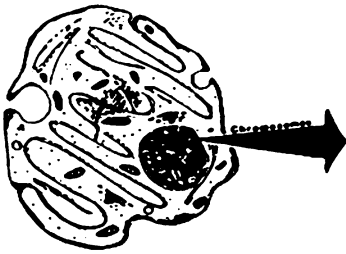
Illustration on the right: Why is it helix shaped? Because the DNA contains an extremely code, it must somehow fit inside the chromosome. The illustration on the right illustrates how the helix shape is used to squash an immense length of it into the tiny chromosome!

Four illustrations below, each of increasing magnification: First, we see the cell with the darkened nucleus containing the chromosomes. Second, inside the chromosomes we find the DNA helix which has the appearance of a spiral staircase. Third, a still closer look reveals the chemical code on the uncoiled DNA staircase. Fourth, we discover the chemical formulas of the sides and rungs.



DNA MOLECULE

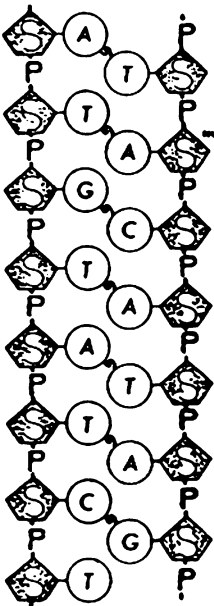
NUCLEUS
INSIDE CELL



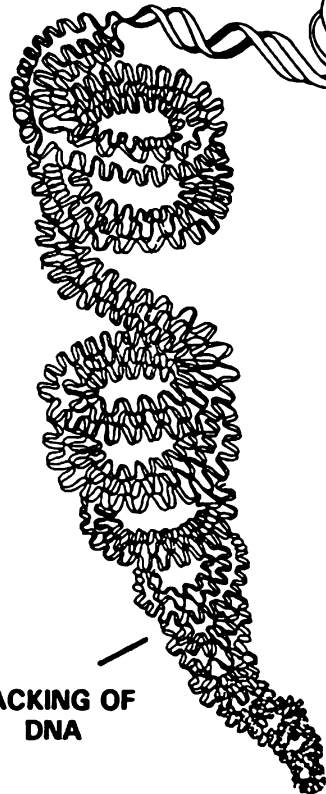
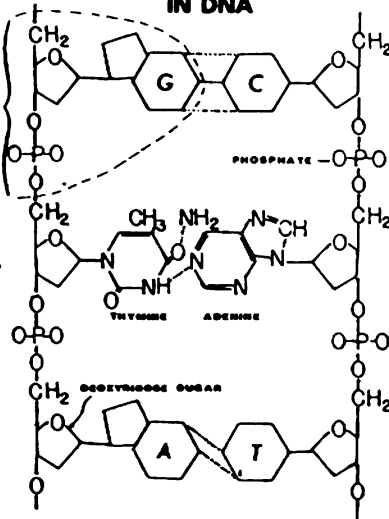
DNA HELIX
INSIDE THE CHROMOSOME



CHEMICAL COMPOUNDS
IN DNA



CHEMICAL FORMULAS
IN DNA



PACKING OF
DNA