

Chapter II: Genetic Material 1.a. Constituents of DNA This molecule consists of simple molecules such as phosphoric acid ( $\text{PO}_4\text{H}_3$ ), 5- carbon monosaccharide's sugar (pentoses) and nitrogenous bases (purines or pyrimidines); In eukaryotes, DNA is essentially stored in the nucleus of cells, with a DNA fraction also present in mitochondria as well as, in plants, in chloroplasts. Deoxyribose ( $\text{C}_5\text{H}_{10}\text{O}_4$ ), or more exactly 2-deoxyribose, is a pentose (aldopentose) derived from ribose by substitution of hydrogen by hydroxyl group in the position 2. There are two main types of nucleic acid: ribonucleic acid (RNA) and deoxyribonucleic acid (DNA). 1. 1.