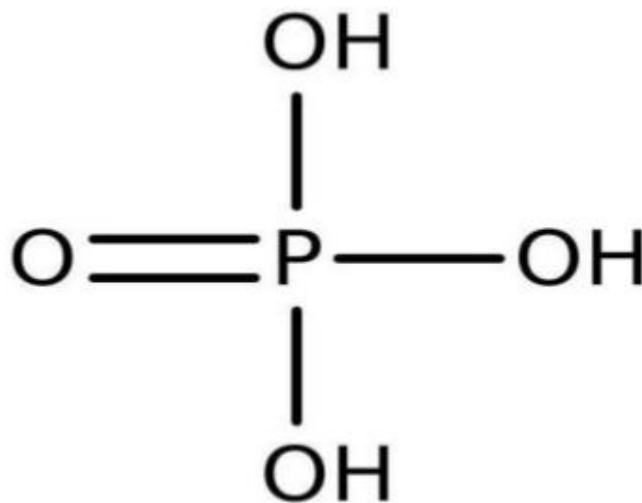


Components of nucleic acids

Components	RNA	DNA
Acid	Phosphoric acid	Phosphoric acid
Pentose sugar	Ribose	2-deoxyribose
Nitrogenous bases		
Purines	Adenine	Adenine
	Guanine	Guanine
Pyrimidines	Cytosine	Cytosine
	Uracil	Thymine

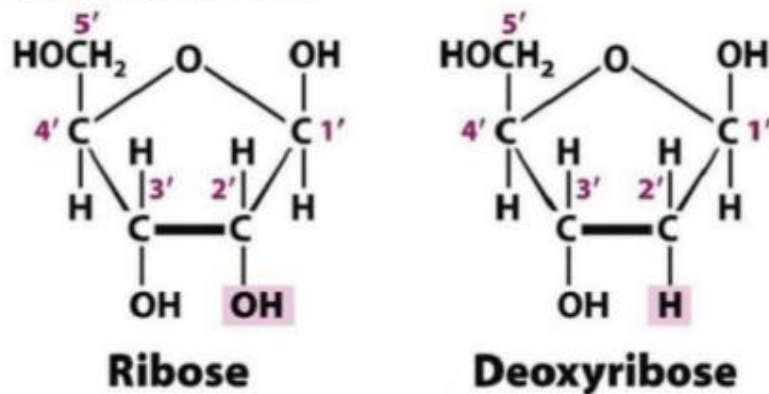
Phosphoric Acid

- ✓ The molecular formula of phosphoric acid is H_3PO_4 .
- ✓ It contains 3 monovalent hydroxyl groups and a divalent oxygen atom, all linked to the pentavalent phosphorus atom



Pentose Sugar

- ✓ The two types of nucleic acids are distinguished primarily on the basis of the 5-carbon keto sugar or pentose which they possess.
- ✓ One possesses D-2-deoxyribose, hence the name deoxyribose nucleic acid or deoxyribonucleic acid, while the other contains D-ribose, hence the name ribose nucleic acid or ribonucleic acid.



Nitrogenous Bases

- ✓ Two types of nitrogenous bases are found in all nucleic acids.
- ✓ The nitrogenous bases are derivatives of pyrimidine and purine.
- ✓ Pyrimidine bases – Uracil, Thymine and Cytosine
- ✓ Purine bases – Adenine and guanine