Building Blocks of Life ← Biomolecules → Are Organic → All contain Carbon

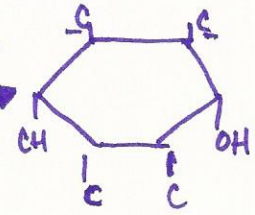
Biomolecules → C, H, O

4 Types: Carbohydrates, Lipids, Proteins, Nucleic Acids ← Macromolecule (polymer)

① Carbohydrates → Main energy Source → (Bread, pasta, potatoes) → Looks like a stop sign.

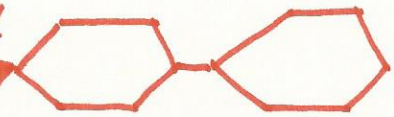
3 types of Carbs → Monosacchride, Disacchride, Polysacchride

Monosacchride (one) →



Ex: monomer

Disacchride (two) →



(Dimer) ← only in Carbs

Polysacchride (many) →

(polymer)

2:1 Ratio

H O

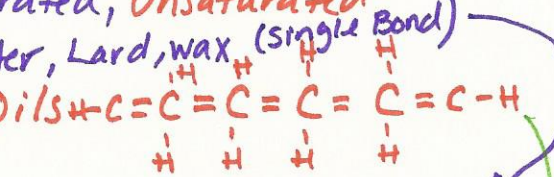
Monomers come together to make polymers.

---

② Lipids → Stored energy → Fat (cholesterol) → 2 types: Saturated, Unsaturated

Saturated: solids → Butter, Lard, wax (single Bond)

Unsaturated: Liquids → Oils (Double Bond)

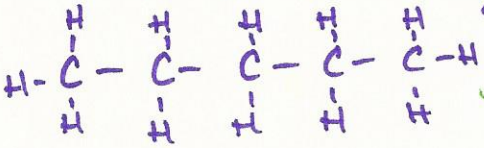


Chem Structur

Monomer of Lipid: Fatty acid

Looks like a chain!

physical structure: (phospholipid Bi-layer)



Monomer of Carbohydrate: Monosacchride Polymer of Carbohydrate: Polysacchride

Monomer of Lipid: Fatty Acid Polymer of Lipid: Lipid

Monomer of Nucleic Acid: Nucleotide Polymer of Nucleic Acid: Nucleic Acid

Monomer of Protein: Amino Acid Polymer of Protein: Protein

Building blocks of Life ← Biomolecules → Contain Carbon → Organic
(Macromolecule) (polymer) → All have C, H, O

4 Types: Carbohydrates, Lipids, Nucleic Acids, Proteins

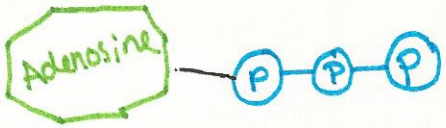
(3) Nucleic Acids (Polymer) → Transmit + store Genetic information → DNA + RNA + Energy (ATP)

Monomer of Nucleic Acid: Nucleotide → 3 structures: Sugar, phosphate, base

} Nucleotide

2 Types of sugars: Ribose (RNA) / Deoxyribose (DNA)

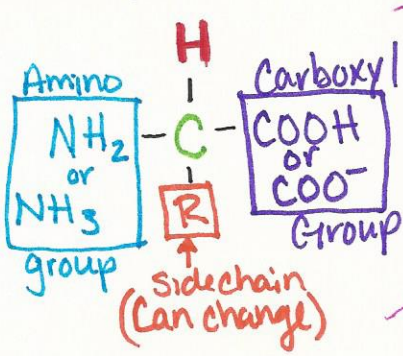
ATP → Adenosine (Base) tri (3) - phosphate



4-Types of Bases
Adenosine Cytosine
Guanine Thymine

(4) Proteins → makes up 90% of our structure + function of OUR Bodies. → Repair (muscles + Tissues)

Monomer of protein: Amino Acid



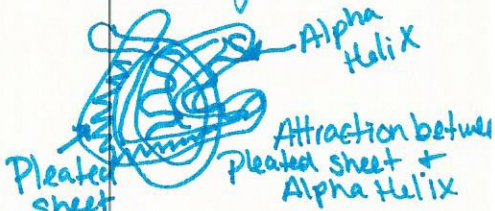
4 structures of Protein:

Primary

Secondary

Amino Acid Chain Linked by Hydrogen Bonds

Tertiary



Quarentary

More than one amino Acid chain crossing

polymer of protein: Protein