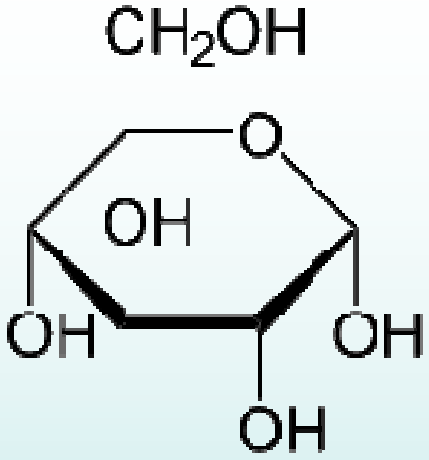
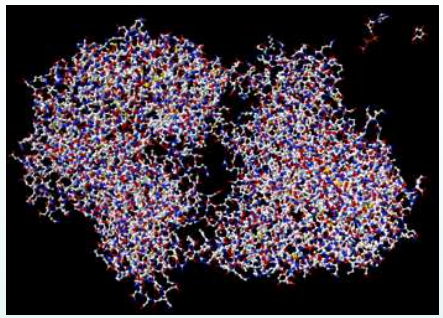
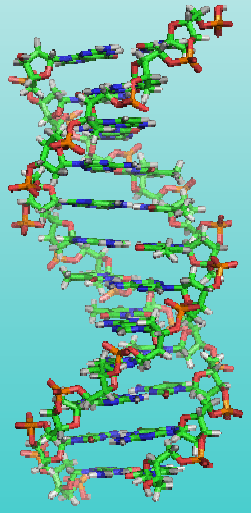




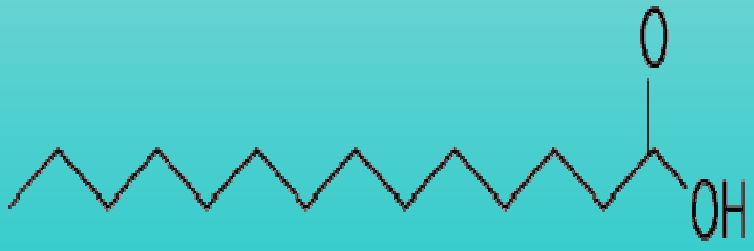
Macromolecules



September 3, 2010

Standard1

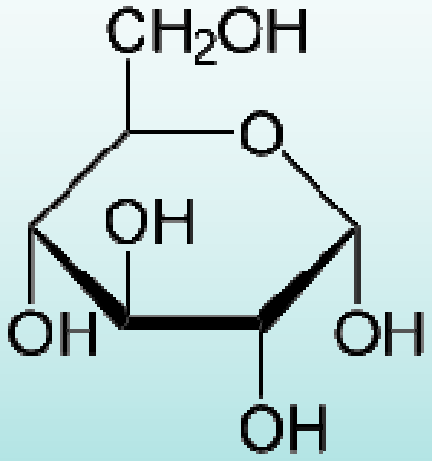
Biology



Organic Compounds

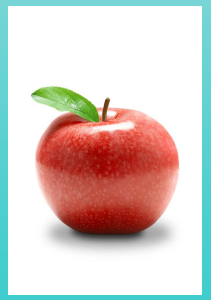
- **Contain carbon atoms**
- **Carbon is bonded to hydrogen, oxygen, and other carbon atoms with covalent bonds**
- **Examples include carbohydrates, proteins, lipids, and nucleic acids**

Carbohydrates

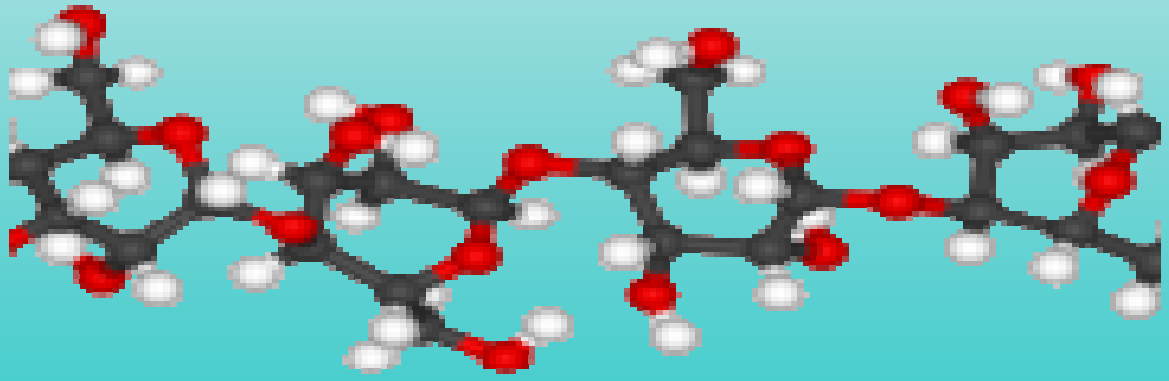


- Key source of energy
- Long term energy storage
- Structural support for plants

- Monosaccharide: single sugar, examples: glucose, fructose

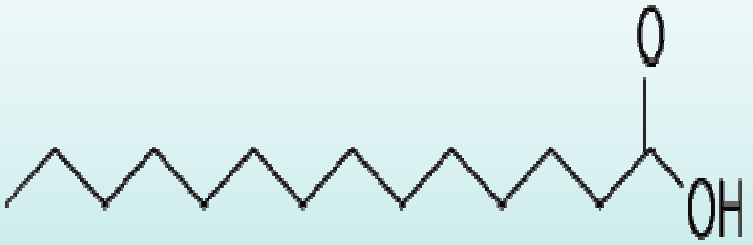


- Disaccharide: 2 rings, example: sucrose
- Polysaccharide: many rings, examples: cellulose, starch, glycogen

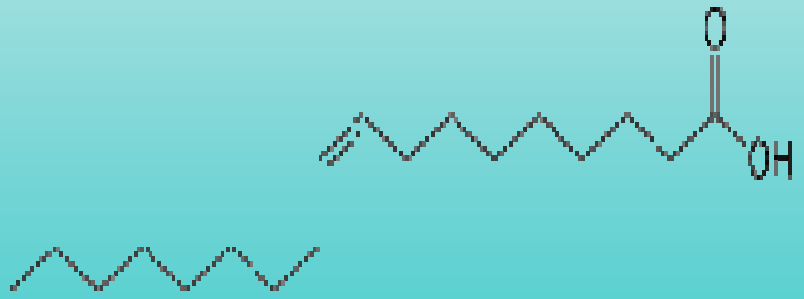


lipids

- Fats-insulation, energy storage
- Phospholipids-part of cell membrane
- Steroids-hormones, cholesterol
- Waxes-water proof
- Pigments-chlorophyll



- Saturated fats-no double bonds, solid at room temperature



- Unsaturated fats-double bonds, liquid at room temperature

Proteins

- Enzymes
- Collagen (skin, ligaments, tendons, bones)
- Antibodies (part of immune system)
- Muscles
- Hemoglobin (blood)

- Proteins are long chains of amino acids
- 20 different amino acids
- Chains fold into compact shapes

Ticket out the Door...

Please copy and complete the statements below

Organic compounds...

Carbohydrates are used for...

One way saturated fats are different from unsaturated fats is...

Proteins are made up of...