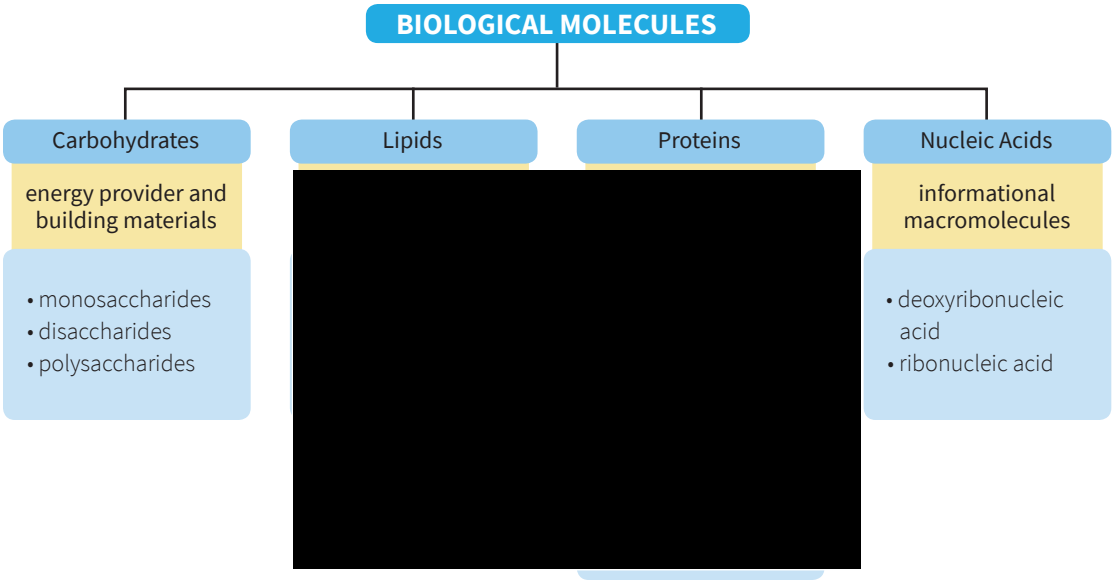
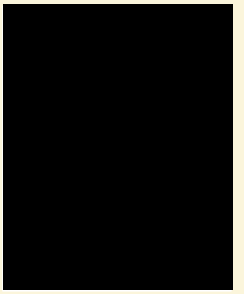


- The seven chemical groups that are commonly found in biologically important molecules are hydroxyl, carbonyl, carboxyl, amino, sulfhydryl, phosphate, and methyl groups.
- Macromolecules are built from monomers through condensation reaction and they are broken down into their component monomers through hydrolysis.
- Carbohydrates are classified based on the number of sugar monomers they possess: monosaccharides are the simplest sugars with one monomer, disaccharides have two, and polysaccharides have hundreds.
- Steroids are made up of four fused C rings with various functional groups.
- Fats store huge amounts of energy. It cushions vital organs in animals and serve as insulation against heat lost in some mammals.
- Phospholipid is a major component of biological membranes.
- Several steroids are regulatory molecules.
- Proteins are the most diverse group of biological molecules both chemically and functionally.
- Proteins can function as structural protein, enzyme, and hormone. They are also utilized for movement, transport, or regulation.

- Proteins may assume a secondary, tertiary, or quaternary structure.
- Nucleic acids are responsible for the storage, expression, and transmission of genetic information.
- The two nucleic acids are deoxyribonucleic acid (DNA) and ribonucleic acid (RNA).
- The basic monomer of nucleic acid is a nucleotide, which is composed of a phosphate group (–PO4), a pentose sugar, and a nitrogenous base.
- The sugar in DNA is called *2-deoxy-d-ribose* while the sugar in RNA is called *ribose*.

KEY TERMS

amino acid
biological molecule
carbohydrate
deoxyribonucleic acid (DNA)
disaccharide
fatty acid
functional groups



polymer
polysaccharide
protein
ribonucleic acid (RNA)
steroid
triacylglycerol