

Chapter 5:

The Structure and Function of Large Biological Molecules

Biological Macromolecules

Carbohydrates

Elements: carbon, hydrogen, oxygen (1:2:1)

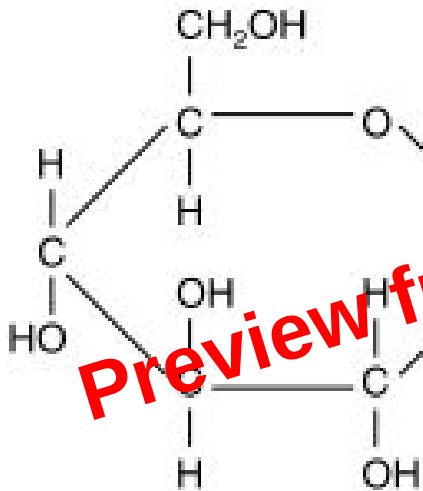
Monomer: monosaccharides

Polymer: polysaccharides/disaccharides

Synthesis Reaction: dehydration synthesis / glycosidic linkage

Examples: poly: starch, cellulose mono: glucose, fructose

Functions: poly: leveled, long-term energy mono: major, short-term energy



Lipids

Elements: carbon, hydrogen, oxygen (1:2:few)

Monomer: triglyceride

Polymer: N/A

Synthesis Reaction: dehydration synthesis / ester linkage

Examples: animal fats, oils, steroids, waxes

Functions: protect organs