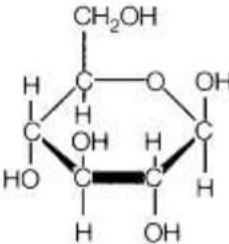
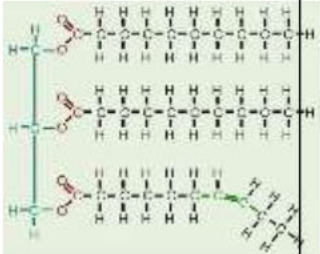
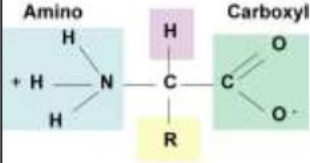



MACROMOLECULE SUMMARY CHART

Macromolecule	Monomer name and chemical composition and Name of bond between adjacent monomers	Types of this macromolecule and example(s) for each type.	Functions (make sure they correspond to the type)
<p>Carbohydrates</p> 	<p>-Monosaccharides (CH₂O)</p> <p>-Glycosidic linkage (aka ether linkage)</p>	<p>1) Monosaccharides (glucose, galactose)</p> <p>2) Disaccharides/ Oligosaccharides (sucrose, lactose)</p> <p>3) Polysaccharides Starch / Glycogen</p> <p>Cellulose</p> <p>Chitin</p>	<p>Energy storage</p> <p>Energy storage</p> <p>Long-term energy storage</p> <p>Structural component of plant cell wall, component of exoskeletons</p> <p>Component of cell walls of fungi</p>
<p>Lipids</p> 	<p>-Glycerol and fatty acids</p> <p>-Ester bond</p>	<p>1) Fats (triglycerides: vegetable oil, animal fat)</p> <p>2) Phospholipids (cell membranes)</p> <p>3) Steroids -Cholesterol</p> <p>-Estrogen / Testosterone</p> <p>4) Waxes</p>	<p>Long-term energy storage. Insulation, protection and cushioning of organs.</p> <p>Amphophilic nature forms cell membranes.</p> <p>Maintains fluidity of m/b, cell signaling</p> <p>Hormone (chemical messenger)</p> <p>Prevents water loss</p>

Macromolecule	Monomer name and chemical composition and Name of bond between adjacent monomers	Types of this macromolecule and example(s) for each type.	Functions (make sure they correspond to the type)
<p>Proteins</p>  <p>The diagram shows a central alpha carbon (C) bonded to a hydrogen atom (H) above it, an R group below it, an amino group (NH2) to the left, and a carboxyl group (COO-) to the right. The amino group is highlighted in light blue, the alpha carbon and its attached hydrogen in light purple, and the carboxyl group in light green.</p>	<p>Amino Acids</p> <p>Peptide bonds</p>	<p>1) Globular (Enzymes “catalase”)</p> <p>2) Fibrous -Keratin -Fibrinogen -Actin/Myosin -Silk</p>	<p>Extremely diverse molecules. With a huge variety of different functions from chemical catalysts to structural building blocks.</p> <p>Enzymes regulate nearly all cell functions</p> <p>Diverse array of molecules often used structurally</p>
<p>Nucleic Acids</p>  <p>The diagram shows a phosphate group (yellow circle) attached to a sugar (red pentagon) via a CH2 group. The sugar is attached to a nitrogenous base (green hexagon). Labels include 'Phosphate group', 'Sugar', and 'Nitrogenous base'.</p>	<p>Nucleotides (phosphate group, N-containing base, sugar)</p> <p>Phosphodiester bonds</p>	<p>1) DNA</p> <p>2) RNA</p> <p>mRNA</p> <p>tRNA</p> <p>rRNA</p> <p>snRNA</p> <p>3) ATP</p>	<p>Genetic code/ heredity</p> <p>Protein synthesis</p> <p>Copy of genes for cytoplasm</p> <p>Delivers AAs to ribosome</p> <p>Part of ribosomes</p> <p>modifies mRNA in nucleus</p> <p>Cellular Energy molecule</p>