

	Carbohydrates	Proteins	Nucleic Acids	Lipids
Monomers “building blocks” Examples:				
Di- - joined together by dehydration synthesis				
Polymer - joined together by dehydration synthesis				
Function in Living Organisms				

	Carbohydrates	Proteins	Nucleic Acids	Lipids
Monomers "building blocks" Examples:	Monosaccharides "simple sugars" Examples <ul style="list-style-type: none"> glucose fructose 	Amino Acids 20 different ones Examples <ul style="list-style-type: none"> Leucine Serine Aspartic acid 	Nucleotides Three parts of a nucleotide <ul style="list-style-type: none"> pentose sugar Phosphate group 1 of 4 nitrogenous bases 	Fatty Acid chains Phosphate groups
Di- - joined together by dehydration synthesis	Disaccharides - two monosaccharides joined together Examples <ul style="list-style-type: none"> Maltose Sucrose lactose 	Dipeptide - two amino acids joined together with a peptide bond	Dinucleotide - two nucleotides joined together	
Polymer - joined together by dehydration synthesis	Polysaccharides <ul style="list-style-type: none"> Starch – storage in plants Glycogen – storage in animals Cellulose – component of cell walls Chitin – exoskeleton of insect and crustaceans 	Polypeptide 4 Levels of Structure <ul style="list-style-type: none"> Primary – sequence of amino acids Secondary – alpha helix or beta pleated sheet Tertiary – three-dimensional shape Quaternary Structure – more than one polypeptide chain 	Polynucleotides DNA <ul style="list-style-type: none"> double-stranded double helix located in nucleus RNA <ul style="list-style-type: none"> Single-stranded Many forms Located in nucleus and cytoplasm 	(do not form polymers) Triglyceride Phospholipid Steroids Waxes
Function in Living Organisms	Function of Glucose: Raw materials Main fuel for cells	Structural Protein Defense – antibodies Signaling - hormones Receptors; Transport; Storage	Basis of heredity "codes" for proteins	Storage of energy Protection Insulation Hormones