All living things are made up of four classes of large biological molecules: carbohydrates, lipids, • proteins, and nucleic acids • Macromolecules are large molecules composed of thousands of covalently connected atoms • Molecular structure and function are inseparableMacromolecules are polymers, built from monomers • A polymer is a long molecule consisting of many similar building blocks • These small building-block molecules are called monomers • Three of the four classes of life's organic molecules are polymers – Carbohydrates – Proteins – Nucleic acids