BIOL 1301-01 Introduction to Biology

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Learning Journal 2

**Question: Create a table comparing the four major biological macromolecules: carbohydrates, lipids, proteins, and nucleic acids. Your table must include the following elements: monomer building blocks, nature of monomer, specific examples (more than one), specific functions (more than one). You can create a table using MS Word. The more you put into this table, the better prepared you will be for the quiz.**

I have developed a table comparing the four main biopolymers, based on the text and my previous studies. They are listed below:

| Biological Macromolecule | Monomer Building Blocks | Nature of Monomer | Specific Examples | Specific Functions |
| --- | --- | --- | --- | --- |
| Carbohydrates | Monosaccharides | Small sugar molecules | Glucose, Fructose | Energy source, structural material |
| Lipids | Fatty acids, Glycerol | Long chain hydrocarbons | Triglycerides, Phospholipids | Energy storage, components of cell membrane |
| Proteins | Amino acids A | Amine group and carboxyl group | Insulin, Hemoglobin | Catalysts (enzymes), movement, immunity |
| Nucleic Acids | Nucleotides | Sugar, phosphate, nitrogenous base | DNA, RNA | Storage and transmission of genetic information |

Table: Four Major Biological Macromolecules: A Comparative Overview

Word-Count: 98

References

1. Openstax. (2024). *Biology*. https://openstax.org/books/biology/pages/preface