Activity 2. Fill My Empty Biomolecules Spaces!

OBJECTIVE: Describe and illustrate the major categories of biomolecules.

Direction: Complete the empty spaces on the table.

	LIPIDS	PROTEINS	NUCLEIC ACID
FUNCTIONS	Concentrated fuel reserve of the body. Constituents of membrane structure. Regulate the membrane permeability. Source of fat-soluble vitamins. Important cellular metabolic regulators. Protect the internal organs and serve as insulating materials.	It helps in the maintenance of our body's cells and tissues, as well as allowing metabolic reactions and coordinating bodily functions.	Genetic Blueprint
ILLUSTRATION	H H H H H H H H H H O H-C-C-C-C-C-C-C-C-C-O-H H H H H H H H H H H	H-G-R	Cytosine Cytosine Guanine Guanine Adenine Adenine Nucleobases of RNA Ribonucleic acid Deoxyribonucleic acid
ELEMENTS	Mainly C, H, O sometimes, P, N, S, etc.	C, H, O, N, S	C, H, O, N, P
MONOMERS	Fatty Acid and Glycerol	Amino acid	Nucleotides
POLYMERS	Triglycerides and Diglycerides	Polypeptide	DNA/RNA
EXAMPLES	Some examples of lipids are fats, oils, waxes, certain vitamins (such as Vitamin A, D, E, and K), hormones, steroids, cholesterol, and most of the cell membranes that are not made up of protein. Foods rich in lipids are butter, vegetable oils, cream, milk, nuts, meat, poultry, fish, vegetables, sauces, and packaged and processed foods.	Some examples of proteins are amylase, lipase, pepsin, hemoglobin, actin, tubulin, keratin, insulin, glucagon, antibodies, myosin, ovalbumin, casein, and albumin. Foods rich in proteins are minced beef, chicken, salmon, egg, cheese, milk, beans, legumes, nuts, pasta, quinoa, and rolled oats.	Examples of nucleic acids are deoxyribonucleic acid (DNA), ribonucleic acid (RNA), messenger RNA (mRNA), transfer RNA (tRNA), and ribosomal RNA (rRNA). All living things have nucleic acids but the foods that are rich in nucleic acids are meat, fish, seafood, legumes, vegetables, and mushrooms.