Organic Molecule of life

Vocab:

1. Macro - Large
2. Mono - One
3. Monomer – One Unit
4. Di - Two
5. Poly - Many
6. Polymer – Many Units
7. Peptide – bond of amino acids
8. Subunit – small unit that make up big molecules
9. Catalyst – speed up chemical reactions

Notes:

The 4 macromolecules of life are \_**Carbohydrates, Proteins, Lipids ,Nucleic acids**

1. Carbohydrates (\_Sugars) or \_Saccharides\_\_\_

Examples are:

 Glucose, Sucrose, Maltose, Lactose, cellulose, starch, Glycogen

Subunit is \_Glucose\_. All polymers are made up of chains of the subunit

Monomer = is the same as the subunit = Glucose

Polymers include = Starch\_\_\_\_, Cellulose, Glycogen

Functions include: 1. Primary Energy Source

 2. Structural – (makes up parts of living things such as …………. Insect shells

1. Proteins – Examples include……. Maltase, sucrose, lactase, cellulase

Subunit is Amino Acid. A chain of amino acids make up a protein

Monomer = same as the subunit = amino acids…………… examples are

Glycine, lysine, tryptophan

Polymers include = lactase, cellulose, maltase

Functions include: Catalyst for chemical Reactions that happen in the body.

 Function in the cell membrane.

 Structural parts of the cell and body such as…. Hair and nails

Amino Acids are out together with a Peptide bond.

Dipeptides are…………….. 2 amino acid

Polypeptides are……………… many amino acids

1. Lipids – lipids are FATS examples are trigycerides, oils, waxes, fat

Subunit or monomer is fatty acid and glycerol.

Examples of polymers are

1. Trigycerides
2. Saturated Fats – solid fats such as MEAT fat.
3. Unsaturated Fats – liquid fats such Vegetable oils.

Function as:

1. Energy storage
2. Make up the cell membrane. (phospholipids)
3. Hormones
4. Nucleic Acids are the Genetic material.

Examples are DNA and RNA

DNA is deoxyribose nucleic acid

RNA is ribonucleic acids

Subunit is a Nucleotide. Chains of nucleotides make up DNA and RNA.

 RNA DNA

1 strand 2 strand

3 types 1 types

1. mRNA
2. tRNA
3. rRNA

Contains U not T Contains T not U

Can leave nucleus Can not leave nucleus

Codes for proteins Codes for RNA

Summary:

1. What are the 4 macromolecules?
2. Each macromolecule is made of many subunits bonded together called the \_\_\_\_\_.
3. Each macromolecule is organic because…….