

ORGANIC compounds contain a carbon-hydrogen bond (C₆H₁₂O₆, CH₄)

INORGANIC compounds do not contain a carbon-hydrogen bonds (CO₂, H₂O)

Elements of Life

96% of living organisms is made of:

What are organisms made of?

We eat to take in more of these chemicals

Food for building materials

to make more of us (cells), for growth, for repair

Food to make energy

calories

to make _____

Foods give organisms more _____ & _____

(for building & running their bodies)

carbohydrates

proteins, fats, nucleic acids, vitamins, minerals, salts, water

Building large molecules of Life

Chain together smaller molecules

building block molecules = _____

Monomers are also called subunits

Big molecules built from little molecules

Small molecules = _____ (building blocks)



Bond them together = _____



Building important polymers

Carbohydrates = built from sugars (_____)

saccharide- saccharide - saccharide - saccharide – saccharide

Proteins = built from _____ acids

amino acid-amino acid-amino acid-amino acid-amino acid

Nucleic acids (DNA) = built from _____

nucleotides-nucleotides-nucleotides-nucleotides-nucleotides

Lipids do not have TRUE monomers. Their building blocks are glycerol and fatty acids

How to build

_____ = to make or build

How to take large molecules apart

_____ = Breakdown or apart

getting raw materials

for synthesis & growth

making energy (_____)

for synthesis, growth & everyday functions

So

There are 4 molecules essential to life:

Carbohydrates

Lipids

Proteins

Nucleic acids

Together they are considered “molecules of life”

Macromolecule

Biomolecule

Life substance