3 groups

Domain Bacteria and Domain Archea are both all bacteria while eukaraya is not

Prokaryotes lack a nucleus, while all eukaryotes have a nucleus and are multicellular

All

8 levels of taxonomic hierarchy

Dear King Phil came over for great soup

Protists can be uni or multicellular

Kingdom animalia

Kingdom fungi

4 most abundant elements in life are H, C, N, O

H+ means losing an electron

H- means gaining an electron

The atomic weight on the periodic table is the strongest bond. The more an element differs from the periodic table the weaker it is

Bonding is going to be on the outermost shell. Electrons determine bonding.

Covalent bonds are when two nonmetals are bonded together

From Left to right and bottom to top of Fluoride, the electronegativity is higher

An ionic bond is a bond between a metal and a nonmetal

Polar covalent bond is unequal sharing of electrons with gases

Nonpolar covalent is equal sharing of electrons

Cohesion is a water specific property that makes the molecules stick together

Water is adhesive, which means it forms hydrogen bonds with other molecules

Hydrophilic means that it will dissolve in water. Temperature plays a part in dissolving

Higher the surface tension the greater the cohesion

The lower the pH the higher the H+

Bicarbonate converts CO2 to bicarbon in body.

Organic molecules have carbon and hydrogen

Monomer is a single unit of carbohydrates and they form together to become polymers

Monosaccharides are the simplest form of sugar and the most basic carbohydrate

Dehydration synthesis adds monomers together, which releases a water molecule. It can bond monosaccharides together forming a disaccharide such as sucrose

Hydrolysis separates polymer, and retains the water molecule. It does so by adding OH and HO back to the carbohydrate

Ribose, glucose, and fructose are all monosaccharides, sucrose is a disaccharide

Polysaccharides are long chains of carbohydrates like cellulose, starch, and glycogen. Starch is broken into sugar and sugar into energy

Proteins are made of amino acids. Protein monomers are amino acids. 20 different amino acids

Peptide bonds can’t be in anything else but proteins

Denatured proteins lose their shape, this could happen by adding heat

The monomers of nucleic acids are found in nucleotides

DNA G-C/ A-T

RNA G-C/ A-U

Lipids are hydrophobic

Different groups of lipids include molecules with varying structure and function

Lipids are not built from chains of monomers

Triglycerides (fats and oils) are energy-rich and are needed for long-term energy storage

Saturated fatty acids have a straight shape while unsaturated fatty acids contain at least one double bond, which gives them a consistent shape

Steroids are a second class of lipids, like cholesterol, which regulates the fluidity of animal membranes and is used to synthesize sex hormones

TEM microscopes are tools for seeing the internal structure of the cell. It transmits electrons through the cell

SEM Microscopes reveal details on cell surfaces. It bounces electrons off the surface of cells

The nucleus controls protein production. It contains DNA. The nucleolus is where protein production starts

mRNA matches the sequence of DNA

RNA binds to a ribosome

Endomembrane system consists of nuclear envelope, endoplasmic reticulum, golgi apparatus, and more

In animal cells membranes have a junction. Tight junctions form an impermeable barrier, anchoring junctions attach cells to the extracellular matrix