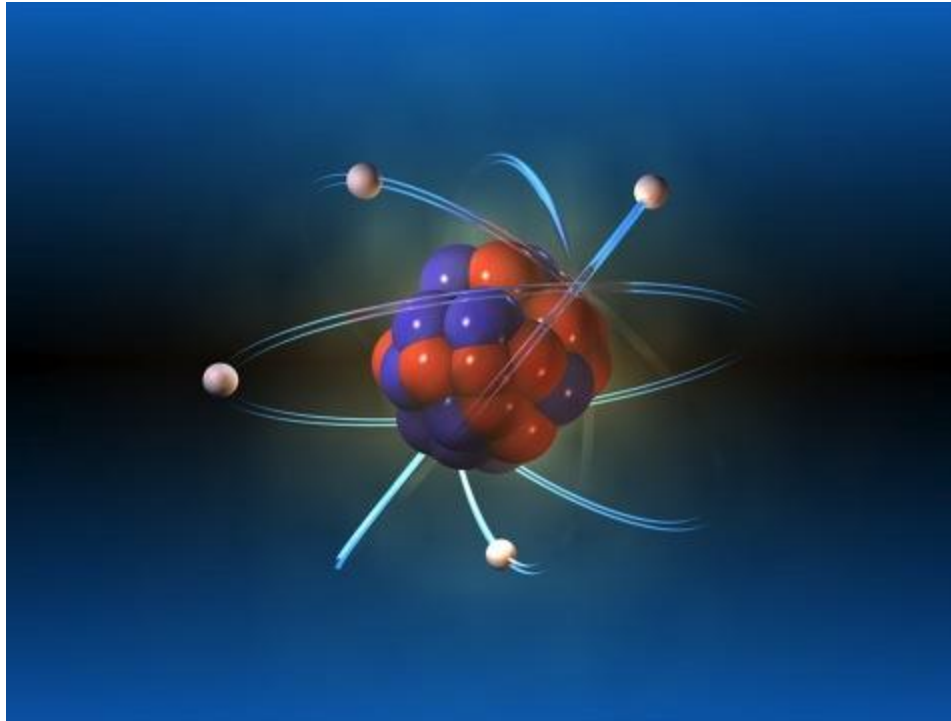


Organic Compounds

Picture Vocabulary

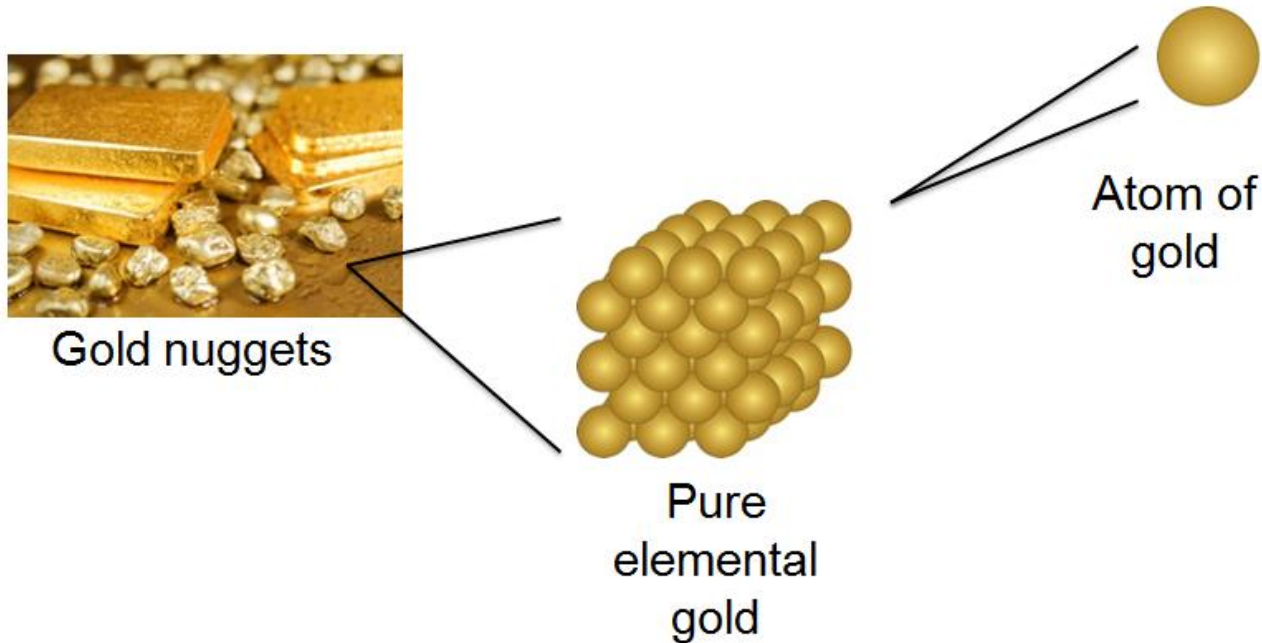
Matter and Energy

Atom



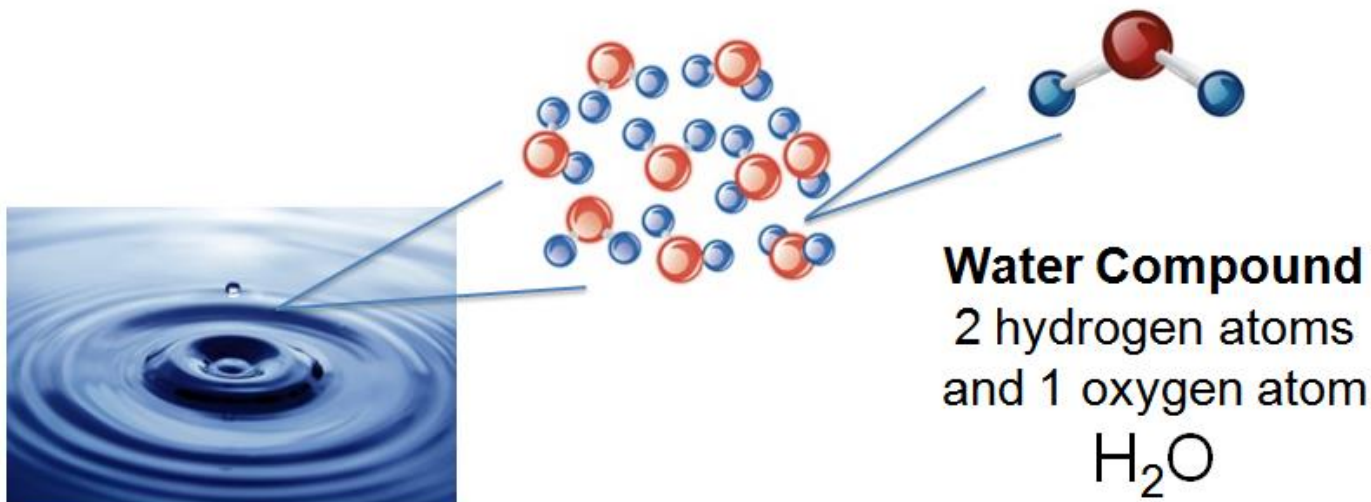
The smallest particle of an element, made of electrons, protons, and neutrons.

Element



A pure substance composed of the same type of atom throughout.

Compound



A substance made of two or more elements that are chemically combined in fixed amounts.

Carbon



A model of a single molecule of the organic compound methane, CH₄

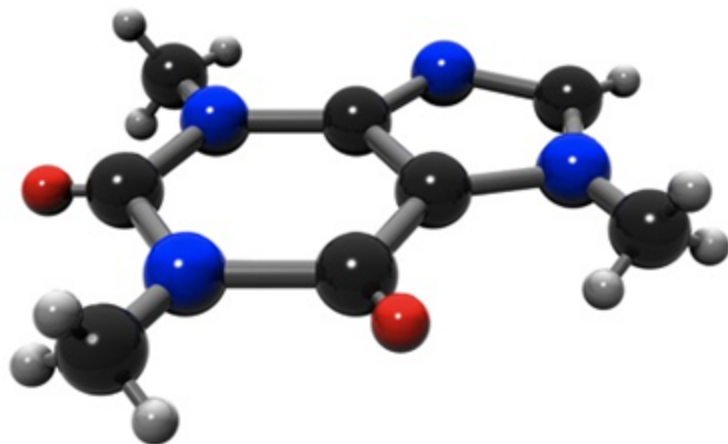
Key:
Black = carbon atom
Blue = hydrogen atoms

1A		2A										3A										4A										5A										6A										7A										8A																																																																																																					
1	H 1.008 Hydrogen																																																													He 4.003 Helium																																																																																																					
2	Li 6.941 Lithium	Be 9.012 Beryllium																																																												Ne 20.180 Neon																																																																																																					
3	Na 22.990 Sodium	Mg 24.305 Magnesium																																																												Ar 39.948 Argon																																																																																																					
4	K 39.098 Potassium	Ca 40.078 Calcium										Sc 44.956 Scandium										Ti 47.867 Titanium										V 50.942 Vanadium										Cr 51.996 Chromium										Mn 54.938 Manganese										Fe 55.845 Iron										Co 58.933 Cobalt										Ni 58.693 Nickel										Cu 63.546 Copper										Zn 65.38 Zinc										Ga 69.723 Gallium										Ge 72.64 Germanium										As 74.922 Arsenic										Se 78.96 Selenium										Br 79.904 Bromine										Kr 83.798 Krypton	
5	Rb 85.468 Rubidium	Sr 87.62 Strontium										Y 88.906 Yttrium										Zr 91.224 Zirconium										Nb 92.906 Niobium										Mo 95.96 Molybdenum										Tc 98 Technetium										Ru 101.07 Ruthenium										Rh 102.905 Rhodium										Pd 106.42 Palladium										Ag 107.868 Silver										Cd 112.412 Cadmium										In 114.818 Indium										Sn 118.710 Tin										Sb 121.760 Antimony										Te 127.60 Tellurium										I 126.905 Iodine										Xe 131.294 Xenon	
6	Cs 132.905 Cesium	Ba 137.327 Barium										La 138.905 Lanthanum										Ce 140.12 Cerium										Pr 140.908 Praseodymium										Nd 144.242 Neodymium										Pm (145) Promethium										Sm 150.36 Samarium										Eu 151.964 Europium										Gd 157.25 Gadolinium										Tb 158.925 Terbium										Dy 162.500 Dysprosium										Ho 164.930 Holmium										Er 167.259 Erbium										Tm 168.934 Thulium										Yb 173.055 Ytterbium																					
7	Fr 223 Francium	Ra 226 Radium										Ac 227 Actinium										Th 232.038 Thorium										Pa 231.036 Protactinium										U 238.029 Uranium										Np 237 Neptunium										Pu 244 Plutonium										Am 243 Americium										Cm 247 Curium										Bk 247 Berkelium										Cf 251 Californium										Es 252 Einsteinium										Fm 257 Fermium										Md 288 Mendelevium										No 289 Nobelium																					

Mass numbers in parentheses are those of the most stable or most common isotope.

A naturally occurring element of Earth, and essential building block of organic compounds.

Organic Compound



A model of a single molecule of caffeine

Key:

Black = carbon atoms

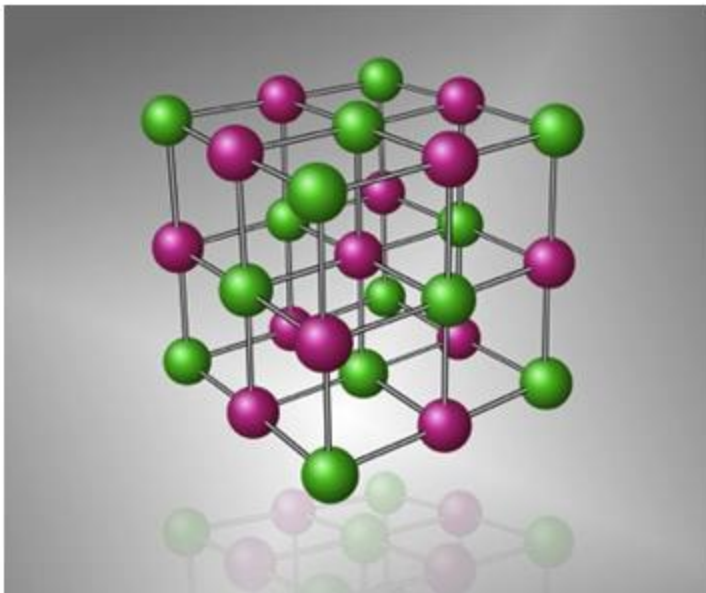
Red = oxygen atoms

Blue = nitrogen atoms

White = hydrogen atoms

A compound that contains organic carbon and other atoms, usually oxygen, hydrogen, nitrogen, phosphorus, and/or sulfur.

Inorganic Compound



A model of sodium chloride (table salt), an inorganic compound

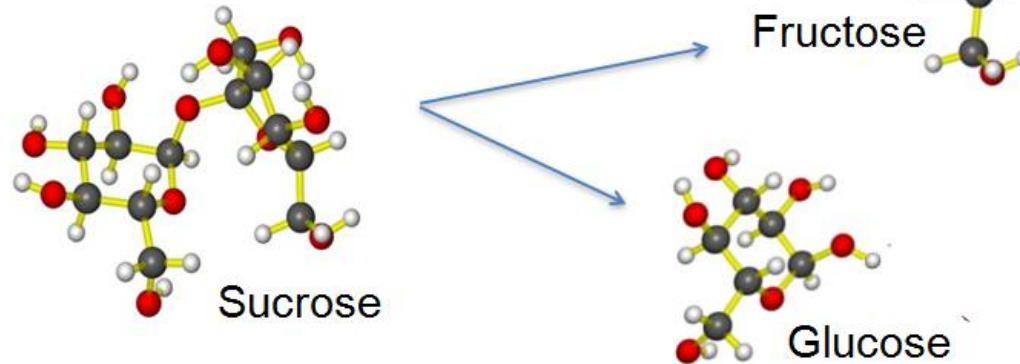
Key:

Green = sodium atoms

Pink = chlorine atoms

Does not contain the carbon-hydrogen atom combination that characterizes organic molecules; not of biological compounds.

Carbohydrates



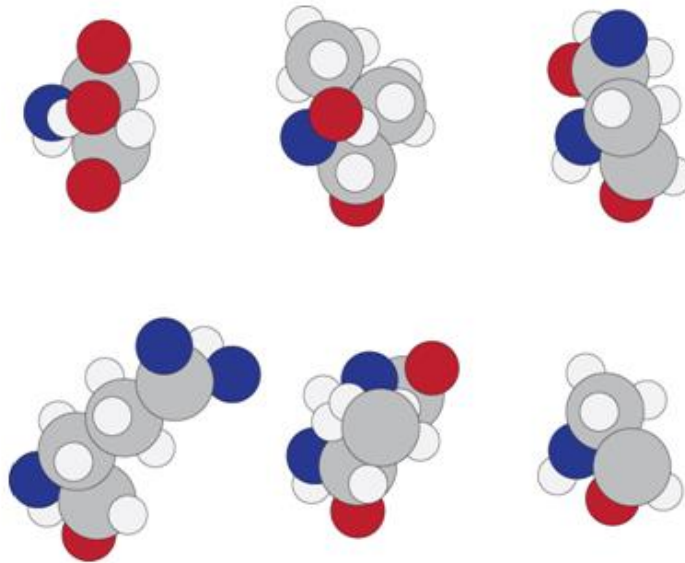
Biomolecules made of oxygen, hydrogen, and carbon that organisms use for structural support and energy storage.

Proteins



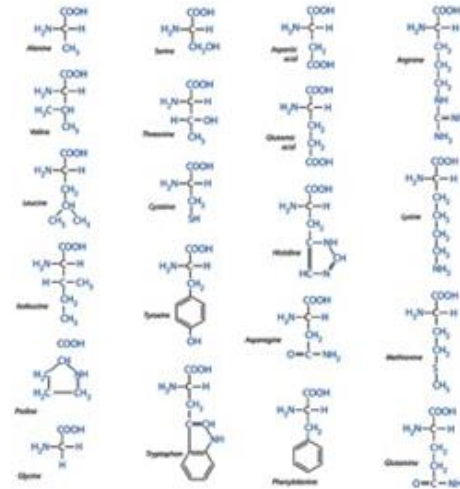
Biomolecules made of amino acids that perform biological functions.

Amino Acid



Each amino acid has unique characteristics

20 amino acids
A life basis



Nitrogen-containing organic molecules that are the building blocks of proteins.

Lipids (Fat)



One of the nutrient-providing components of food; used as an energy source in the body, and found in butter, oils, nuts, meat, fish, and some dairy products.