Body consists of four major elements:
- Oxygen (O) – 65%
- Carbon (C) – 18%
- Hydrogen (H) – 9%
- Nitrogen (N) – 3.5%

Lesser elements make up 3.9% of the body and include:
- Calcium (Ca), phosphorous (P), potassium (K), sulfur (S), sodium (Na), chlorine (Cl), magnesium (Mg), iodine (I) and iron (Fe).
    - Calcium important for nerve transmissions and bones.
    - Zinc very important for immune system.

Trace elements make up less than 0.1% of the body.

Atoms: composed of subatomic particles:
- Neutrons: No electrical charge
- Protons: positive charge
- Electrons: negative charge – spinning around nucleus – little weight – depending on how many determines the size/volume of the atom.

Nucleus: formed by protons and neutrons. Neutrons + protons = weight of the atom.

Depending on the number of positive charges will decide on the atom

Atom models:
- Planetary model – electrons move around the nucleus in fixed circular orbits.
- Orbital model – regions around the nucleus in which electrons are most likely to be found.



Atomic number = number of protons in each atom = number of electrons.
Mass number = number of protons + number of neutrons.

The first ring of electrons can take up to two electrons. Further rings can take up to eight.

High hydrogen levels suppress the nervous system.

Atomic weight: The weight of $6.023 \times 10^{23}$ number of atoms of an element.
Isotope: two different forms of same element with same number of protons and electrons but different number of neutrons.
Radioisotopes: atoms that undergo spontaneous decay called radioactivity.

Inert elements: outermost energy level (ring) fully occupied by electrons.
Reactive elements: do not have their outermost energy level (ring) fully occupied by electrons.