- Other elements found in tiny amounts in living systems include iron, molybdenum, selenium, vanadium, iodine, boron, chromium, fluorine, silicon, chlorine, manganese, cobalt, copper, and zinc.

- Elements differ from one another. Their properties also differ, such as carbon as black solid, sulfur as yellow solid, and helium as a colorless gas.

- Chemists, such as **John Dalton**, concluded that each element is composed of identical particle called atoms, a term that comes the Greek word **atomos meaning "indivisible"**.

Bond

- A chemical bond is what holds atoms in a molecule together. Electrostatic forces between positively charged atomic nuclei and negatively charged electrons cause bonds to form (the positions of which in space are determined by quantum mechanics).

Three kinds of bonds are observed in biological system

- **Ionic bonds**

  - Ionic bonds are attractions between ions of opposite charges.
  - ionic bond forms between ions, which have electronic charge, resulting from gaining or losing one or more electrons. Ions are formed because they are more stable when the outermost energy level is full.
  - Bonds formed between ions with opposite charges.