CHAPTER OVERVIEW

1: Introduction - The Ambit of Chemistry

The science of chemistry is concerned with the composition, properties, and structure of matter and with the ways in which substances can change from one form to another. Since anything that has mass and occupies space can be classified as matter, this means that chemistry is involved with almost everything in the universe. But this definition is too broad to be useful. Chemistry isn't the only science that deals with the composition and transformations of matter. Some matter is composed of cells, which transform by meiosis and other processes that biologists study. Matter is also composed of subatomic particles called leptons, which transform by processes like annihilation studied by physicists. Chemists are unique because they understand or explain everything, from our bodies to our universe, in terms of the properties of just over 100 kinds of atoms found in all matter and the amazing variety of molecules and other atomic-scale structures that are created by forming and breaking bonds between atoms.