

## Chem 11 Introduction : Definitions-10

Hypothesis - (or theory) An explanation.

Model - A device that helps us to understand a theory.

Matter - Anything that has mass and volume.

Mass - The quantity of matter.

The Law of Conservation of Matter - Matter is never created or destroyed.

Physical State - Matter is in one of three physical states ; gas, liquid or solid.

Energy - This is anything that is not matter that can cause a change in matter.

Potential Energy - Stored Energy.

Kinetic Energy - The energy of motion.

Boiling Point - The temperature at which a liquid changes to a gas.

Melting Point - (or freezing point) The temperature at which a solid changes to a liquid.

Elements - These are substances that can't be broken down. They are made up of only one type of atom.

Atoms - The smallest indivisible part of matter.

Molecule - A particle that consists of more than one atom.

Compound - This is a substance composed of two or more atoms in a definite proportion.

Pure Substance - An element or compound.

Mixture - Two or more pure substances mixed together.

Distillation - A method used to separate the components of a mixture based on boiling point differences of the components.

Solution - Homogeneous mixture.

Mechanical Mixture - Non-Homogeneous mixture.

Physical Reaction - The change of state of matter.

Chemical reaction - One or more compounds react to form one or more new compounds.

Chemistry - The study of chemical reactions.

Electrolysis - A method used to decompose a compound using electricity.

Law of Definite Composition - All compounds have a definite composition. (e.g. water consists of one-third oxygen atoms and two-thirds hydrogen atoms).

Ion - An atom, or group of atoms which has a surplus or deficit of electrons.