Mid Term Syllabus
Session-2020-21
Class-IX
Subject: Science (086)

Content(Ch-2,5,8,9,13)

UNIT-I Matter-Its Nature and Behaviour

Chapter-2: Is Matter Around Us Pure:

Elements, Compound and mixtures. Heterogeneous and homogenous mixtures, colloids and suspension.

Suggestive Practical-1 : Preparation of

a) A true solution of common salt, sugar and alum.

b) A suspension of soil, chalk powder and fine sand in water.

c) A colloidal solution of starch in water and egg albumin/ milk in water and distinction between these on the basis of

- transparency
- filtration criterion
- stability

Suggestive Practical-2: Preparation of a) Mixture b) A Compound, using Iron filing and Sulphur powder and distinction between these on the basis of –

i) appearance i.e. homogeneity and heterogeneity

ii) behavior towards a magnet

iii) behavior towards Carbon disulphide as a solvent

iv) effect of heat

Suggestive Practical-3: Performing the following reactions and classifying them as physical or chemical changes:

a) Iron with Copper Sulphate solution in water b) Burning of magnesium ribbon in air

c) Zinc with dilute Sulphuric Acid d) Heating of Copper Sulphate Crystals

e) Sodium Sulphate with Barium Chloride in the form of their Solution in water.

UNIT-II Organisation in the Living World:

Chapter-5:The Fundamental Unit Of Life

Cell as a basic unit of life; Prokaryotic and Eukaryotic cells, multicellular organisms, cell membrane and Cell Wall, Cell Organelles and Cell inclusions; Chloroplast, Mitochondria, Vacuoles, Endoplasmic reticulum, Golgi apparatus; Nucleus, Chromosomes – basic structure, number.

Suggestive Practical -4: Preparation of stained temporary mounts of

a) Onion peel

b) Human Cheek Cells and to record observations and draw their labeled diagrams.

UNIT-III – Motion, Force and Work

Chapter-8: Motion

Distance and displacement, velocity, uniform and non-uniform motion along a straight line, acceleration, distance- time and velocity- time graphs for uniform motion and uniformly accelerated motion, Derivation of equations of motion by graphical method, elementary idea of uniform circular motion.

Chapter-9: Force and Laws of Motion:

Force and motion, Newton's Laws of Motion, Action and reaction forces, Inertia of body, Inertia and mass, Momentum, force and acceleration. Elementary idea of conservation of momentum.

UNIT II – Organization in the Living World

Chapter-13: Why Do We Fall ill

Health and Diseases: Health and its Failure, Infectious and Non-infectious diseases, their causes and manifestation, Diseases caused by microbes(virus, bacteria and protozoans) and their prevention, principles of treatment and prevention. Pulse Polio programs and Immunization.