

pClass – IX
REVISED SYLLABUS
(For the Session of 2020-21 Only)
SCIENCE
(THEORY)

Theme : Materials

Unit 2 : Matter - Nature and behaviour

Nature of matter : Elements, compounds and mixtures. Heterogenous and homogenous mixtures, colloids and suspensions.

Particle nature, basic units : atoms and molecules. Law of constant proportions. Atomic and molecular masses.

Mole Concept : Relationship of mole to mass of the particles and numbers. Valency.

Chemical formula of common compounds.

Structure of atom : Electrons, protons and neutrons; Isotopes and isobars.

Theme : The World of the living

Unit 3 : Organization in the living world.

Cell - Basic Unit of life : Cell as a basic unit of life; prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, cell organelles; chloroplast, mitochondria, vacuoles, ER, golgi apparatus; nucleus, chromosomes - basic structure, number.

Tissues, organs, organ systems, organism.

Structure and functions of animal and plant tissues (four types in animals; merismatic and permanent tissues in plants).

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 programmes.

Theme : Moving things, people and ideas

Unit 4 : Motion, Force and Work

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

Force and Newton's laws : Force and motion, Newton's laws of motion, inertia of a body, inertia and mass, momentum, force and acceleration. Elementary idea of conservation of momentum, action and reaction forces.

Gravitation : Gravitation; universal law of gravitation, force of gravitation of the earth (gravity), acceleration due to gravity; mass and weight; free fall.

Work, Energy and Power : Work done by a force, energy, power; kinetic and potential energy; law of conservation of energy.

