

Class – X
REVISED SYLLABUS
(For the Session of 2020-21 Only)
SCIENCE
(THEORY)

Theme : Materials

Unit 1 : Chemical Substances - Nature and Behaviour

Acids, bases and salts : General properties, examples and uses, concept of pH scale, importance of pH in everyday life; preparation and uses of sodium hydroxide, Bleaching powder, Baking soda, washing soda and Plaster of Paris.

Chemical reactions : Chemical Equation, Types of chemical reactions : combination, decomposition, displacement, double displacement, precipitation, neutralization, oxidation and reduction in terms of gain and loss of oxygen and hydrogen.

Metals and non metals : General properties of Metals and Non-metals, reactivity series, Formation and properties of ionic compounds,

Carbon Compounds : Covalent bonding in carbon compounds. Versatile nature of carbon,

Periodic classification of elements : Modern Periodic table, Gradation in Properties.

Theme : The world of the living

Unit 2 : World of Living

Life Processes : "living" things; Basic concept of nutrition, respiration, transport and excretion in plants and animals.

Reproduction : Reproduction in animal and plants (asexual and sexual). Need for and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women's health.

Heridity and evolution : Heridity; Origin of life : brief introduction;

Theme : How things work.

Unit 3 : Effects of Current

Potential difference and electric current. Ohm's law; Resistance, Factors on which the resistance of a conductor depends. Series combination of resistors, parallel combination of resistors; Heating effect of Electric current; Electric Power, Inter relation between P, V, I and R.

Magnets : Magnetic field, field lines, field due to a current carrying wire, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's left hand rule. Electro magnetic induction. Induced potential difference, Induced current. Fleming's Right Hand Rule

Theme : Natural Phenomena

Unit 4 : Reflection of light at curved surfaces, Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length. Mirror Formula (Derivation not required), Magnification.

Refraction; laws of refraction, refractive index.

Refraction of light by spherical lens, Image formed by spherical lenses, Lens formula (Derivation not required),

Magnification. Power of a lens; Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life.

Theme : Natural Resources

Unit 5 : Conservation of natural resources :Management of natural resources. Conservation and judicious use of natural resources. Forest and wild life, coal and petroleum conservation. Examples of People's participation for conservation of natural resources.

The Regional environment : Big dams : advantages and limitations; alternatives if any. Water harvesting. Sustainability of natural resources.

Our Environment : Eco-system, Environmental problems, their solutions. Biodegradable and non-biodegradable, substances ozone depletion.