



## EMBASSY OF INDIA SCHOOL (KV) MOSCOW

### SPLIT-UP SYLLABUS 2024-25

### CLASS: X- SCIENCE

S .No	Month	No. of workin g Days	Description (Title of the chapter, Topics /Units)	Suggestive Practical, Project, MDP, Tests & Assignments	Suggested methodology to be used (Like PBL/AIL/CCT/ Experiential learning)
1	APRIL	22	<p><b>Light Reflection and Refraction</b>            flection of light by 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.</p> <p><b>Chemical reactions:</b> Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition.</p> <p><b>Life processes:</b> 'Living Being'. Basic concept of nutrition,</p>	<p>Monthly Test            Assignment/MCQs            Experiment-10</p> <p>Type Of Reactions – Burning            Of Magnesium , Reaction of            Zn in Conc HCl</p>	<p>Experimentation            , Observing            Reactions Video            , Peer Group            Discussion ,            Drawing            Diagrams</p>

2	MAY	19	<p><b>Human Eye and the clourful world</b> Functioning of a lens in human eye, defects of vision and their corrections, applications of spherical mirrors and lenses.</p> <p><b>CHEMICAL REACTIONS</b> - Displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation and reduction</p> <p><b>LIFE PROCESS</b> - respiration, transport and excretion in plants and animals.</p>	<p>Monthly Test Assignment/MCQs Experiment-11</p> <p>Heating Lead Nitrate , Reaction between Potassium Iodide solution and Lead nitrate , Barium Chloride and sulphuric acid</p>	Observing reactions video , experimentation , writing reactions and analysis of reaction
3	JUNE & JULY	21	<p><b>Human Eye and the clourful world</b> Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life (excluding colour of the sun at sunrise and sunset)</p> <p><b>Acids, bases and salts:</b> Their definitions in terms of furnishing of <math>H^+</math> and <math>OH^-</math> ions, General properties, examples and uses, neutralization, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life;</p> <p><b>Control and co-ordination in animals and plants:</b> Tropic movements in plants; Introduction of plant hormones; Control and co-ordination in animals: Nervous system; Voluntary, involuntary and reflex action; Chemical co-ordination: animal hormones</p>	<p>Class Test Experiment-13</p> <p>Properties of Acid and Bases , Finding pH of various solutions , fruits and vegetables , Preparation of Natural Indicator</p>	Project Based Learning , Experimentation
4	AUGUST	19	<p><b>Electricity:</b> Electric current, potential difference and electric current. Ohm's law; Resistance, Resistivity, Factors on which the resistance of a conductor depends. Series combination of resistors, parallel combination of resistors and its applications in daily life.</p> <p><b>Acids, bases and salts:</b> preparation and uses of Sodium</p>	<p>Monthly Test Experiment-4</p>	Video – observing

			<p>Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris</p> <p><b>Reproduction:</b> Reproduction in animals and plants (asexual and sexual) reproductive health - need and methods of family planning</p>		reaction video . Discussion
5	SEPTEMBER	21	<p><b>Electricity:</b> Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R.</p> <p><b>Metals and nonmetals:</b> Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention.</p> <p><b>REPRODUCTION :</b> Safe sex vs HIV/AIDS. Child bearing and women's health</p>	<p>Monthly Test Experiment-5</p> <p>Reactivity Series – Finding the order of reactivity of metals</p>	Experimentation , Project based learning
6	OCTOBER	19	<p><b>Magnetic effects of Electric current:</b> Magnetic field, field lines, field due to a current carrying conductor, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's Left Hand Rule, Direct current. Alternating current: frequency of AC. Advantage of AC over DC. Domestic electric circuits.</p> <p><b>Carbon compounds:</b> Covalent bonding in carbon compounds. Versatile nature of carbon. Homologous series. Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes), difference between saturated hydro carbons and unsaturated hydrocarbons. Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents.</p>	<p>Class Test Experiment-8</p> <p>Properties of Acetic acid and Cleaning action of Soap , Making Models of molecule</p>	Art Integrated learning, Project based learning

			<b>Heredity and Evolution:</b> Heredity; Mendel's contribution- Laws for inheritance of traits: Sex determination: brief introduction: (topics excluded - evolution; evolution and classification and evolution should not be equated with progress).		
7	NOVEMBER	21	REVISION	Pre-Board-1	
8	DEC & JAN	21	REVISION	Pre-Board-2	
9	FEB 2025	20	REVISION		
10	MARCH 2025		BAORD EXAM		