DAV ZONE
X – Science Syllabus Division
Session 2026-27

Month	Chapter	Content	Activities and Experiments	Learning Outcomes and SDG
April	Light: reflection and refraction	Reflection of light by curved surfaces; Images formed by spherical mirrors, center of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), magnification.	-Focal length of concave mirror -Identify different types of mirrors -Demonstration of rays	*Student is able to:* Identify different types of mirrors, use mirrors in real life, understand dual nature of light *SDG:* (9) industry , innovation and infrastructure
	Chemical reactions and equations	Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation and reduction.	Performing and observing the following reactions and classifying them into: A. Combination reaction Unit-I B. Decomposition reaction C. Displacement reaction D. Double displacement reaction	*Student is able to:* Apply law of conservation of mass , differentiate between different types of reactions *SDG:* (7) affordable and clean energy
	Life Processes	Living Being'. Basic concept of nutrition, respiration	Preparing a temporary mount of a leaf peel to show stomata. Experimentally show that carbon dioxide is given out during respiration	*Student is able to:* understand the process of nutrition and respiration *SDG:* (3) Good Health and Well Being
May	Light: reflection and refraction	Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivation not required); Magnification. Power of a lens.	(1) Focal length of convex lens (2)Tracing the path of a ray of light passing through a rectangular glass	*Student is able to:* understand bending of light , image formation by lenses. *SDG:* (9) Industry innovation and infrastructure

			slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result. (3) Tracing the path of the rays of light through a glass prism.	
	Acid base and salts	Their definitions in terms of furnishing of H+ and OH– ions, General properties, examples and uses, neutralization, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris.	A. Finding the pH of the following samples by using pH paper/universal indicator: (i) Dilute Hydrochloric Acid (ii) Dilute NaOH solution (iii) Dilute Ethanoic Acid solution (iv) Lemon juice (v) Water (vi) Dilute Hydrogen Carbonate solution B. Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with: a) Litmus solution (Blue/Red) b) Zinc metal c) Solid sodium carbonate	*Student is able to:* Learn about the properties of acid and base , Ph scale and its range , concept of neutralization and its importance *SDG:* (3) Good health and well being (9) Industry innovation and infrastructure
	Life processes	Living Being : Transport and excretion in plants and animals.		*Student is able to:* Explain the importance of transportation in

				maintaining homeostasis, apply the concept of excretion to explain the importance of waste removal *SDG:* (3) good health and well being , (6) clean water and sanitation , (12) responsible consumption and production
June	SUMMER BREAK			
July	Human eye and colorful world	Functioning of a lens in human eye, defects of vision and their corrections, applications of spherical mirrors and lenses. Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life (excluding color of the sun at sunrise and sunset).		*Student is able to:* Understand working of human eye, their defects and corrections. Understand Dispersion of light, Understand Scattering of light , understand how rainbow is formed , How refraction occurs in atmosphere. *SDG:* (9) Industry innovation and infrastructure
	Metals and non metals	Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention.	Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions: Unit-I i) ZnSO4(aq) ii) FeSO4(aq) iii) CuSO4(aq) iv) Al2 (SO4)3(aq)	
	OUR Environment	Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances.		*Student is able to:* To acquire knowledge about ecosystems and their components, understand food chains and their role in ecosystem *SDG:* (13) climate action (6) clean water and sanitation (7) affordable and clean energy *Student is able to:*

	Control and coordination	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.		Differentiate between reflex actions and voluntary actions, analyze the importance of coordination between various organs while doing any activity, understand the importance of endocrine glands and hormones *SDG:* (3) Good health and well being
Aug	Revision	Revision		
Sept	Half Yearly	Half Yearly		
Oct	Electricity	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. Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R.	(1) Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance. Also plotting a graph between V and I. (2) Determination of the equivalent resistance of two resistors when connected in series and parallel.	*Student is able to:* learn the use of series and parallel circuit in daily life, understand the role of heating effect in daily life *SDG:* (7) Affordable and clean energy
	Carbon and its compounds	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).		*Student is able to:* Understand that carbon is metal or non metal , IUPAC nomenclature of hydrocarbons *SDG:* (4) Quality education (9) Industry innovation and infrastructure (12) Responsible consumption and production

	How do organisms reproduce	Reproduction in animals and plants (asexual and sexual) reproductive health - need and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women's health.	Studying (a) binary fission in Amoeba, and (b) budding in yeast and Hydra with the help of prepared slides. Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).	*Student is able to:* Recall the basic idea of reproduction, understand the various modes of reproduction in plants and animals, Understand the concept of reproduction in humans, Embryonic development in human female *SDG:* (3) good health and well being , (4) quality education , (5) gender equality (15) life on land
Nov	Magnetism	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.		
	Carbon and its compounds	Ethanol and Ethanoic acid (only properties and uses), soaps and detergents.	Study of the following properties of acetic acid (ethanoic acid): Unit- I i) Oduor ii) solubility in water iii) effect on litmus iv) reaction with Sodium Hydrogen Carbonate	*Student is able to:* Cleansing action of soap and detergent. *SDG:* (4) Quality education (9) Industry innovation and infrastructure (12) responsible consumption and growth
	Heredity	Heredity; Mendel's contribution- Laws for inheritance of traits: Sex determination: brief introduction: (topics excluded - evolution;	Study of the comparative cleaning capacity of a sample of soap in soft and hard water.	(3) Good Health and Well Being (9)Industry Innovation and Infrastructure

		evolution and classification and evolution should not be equated with progress).		(4) Quality Education connection to Heredity
DEC	Pre Boards 1			
JAN	Pre Board 2			
FEB	Final Exams			