

TERM AND MONTH-WISE SPLIT-UP SYLLABI OF CLASS – XI FOR THE SESSION 2026-2027

SUBJECT: English

Textbook: 1. Hornbill

2. Snapshots

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23							
May	07							
June	16	Hornbill: The Portrait of a Lady (Prose)	To analyze the theme of changing relationships and values across generations. Importance of relationship in one's life.	Create a memory collage of grandparents (Both maternal and paternal side).	Discussion on family structures in different cultures.	Write character arc of your grandparents.	Compare village vs city life values.	Students understand emotional depth and character portrayal.
		A PHOTOGRAPH	Understanding the theme of loss, memory, and passage of time.	Students create memory collage using drawings or old photographs representing childhood memories.	Teacher explains the poem with visuals and simple language so all learners can connect with the emotions and theme.	Students bring an old photograph and write a short paragraph describing the memory connected with it.	Group discussion on how photographs preserve memories and emotions.	Students develop appreciation of poetry, identify poetic devices, and understand emotional expression through literature.
		Snapshots: The Summer of the Beautiful White Horse (Prose)	To understand honesty, childhood innocence and moral conflict.	Storyboard creation.	Peer storytelling session	Reflective paragraph on honesty.	Debate on ethical decision-making.	Students evaluate moral conflicts critically.

		Speech Writing	To develop persuasive and structured writing skills.	Poster on speech topic.	Scaffolded writing format guidance.	Draft and present a speech	Mock speech competition.	Students write effective and impactful speeches.	
July	26	Hornbill: We're Not Afraid to Die... if We Can all be Together (Prose)	To explore courage and resilience in adversity. To deal with the problems.	Survival map drawing.	Discussion on teamwork and crisis management.	Project on real-life survival stories. (Earthquake, flood, landslide, accident pandemic etc.).	Case study on leadership skills.	Students understand themes of determination and unity	
		1ST PT – 27/07/26							
		Gap Filling (Tenses)	To apply tense forms and clause structures correctly.	Grammar charts.	Differentiated worksheets.	Gap-filling exercises.	Sentence transformation tasks.	Students use grammar accurately in context.	
		Note Making	To note down the important points.	Note on debate topic.	Making notes	Making notes	Frame Note for school event.	Students use the concept of note making accurately in context.	
		Snapshots: The Address (Prose)	To analyse themes of memory, loss and identity.	Memory scrapbook.	Emotions sharing circle.	Paragraph on importance of memories.	Compare pre-war and post-war identity.	Students interpret emotional conflicts effectively.	
		Hornbill: The Laburnum Top (Poem)	To appreciate imagery and symbolism in poetry. Importance of small things in one's life.	Nature painting.	Poem recitation with expression.	Compose a short poem based on nature.	Identify poetic devices from the poem.	Students analyze poetic imagery confidently.	
Aug	24	Classified Advertisements	To master concise and format-based writing.	Advertisement using Indian Folk Art. (Sohrai Art, Madhubani, Warli Art etc.)	Peer feedback activity.	Create advertisement	Design ad for school event.	Students understand format and clarity in writing tasks.	
	24	Posters	To master concise and format-based writing.	Posters using Indian Folk Art. (Sohrai Art, Madhubani, Warli Art etc.)	Peer feedback activity.	Create posters.	Design posters on different topics.	Students understand format and clarity in writing tasks.	
		Hornbill: The Voice of the Rain	To interpret personification and natural cycles.	Rain-inspired artwork.	Group discussion.	paragraph writing.	Identify figures of speech.	Students understand	

								figurative language usage.
		Snapshots: Mother's Day (Play)	To examine satire and humor in family dynamics.	Role-play and dramatization.	Group performance.	Write alternative ending.	Analyze humorous elements.	Students appreciate dramatic techniques and satire.
		Discovering Tut: The Saga Continues.	Students learn about the historical investigation of King Tut and understand how science helps in studying history.	Students create a timeline or poster related to Egyptian civilization and King Tut.	Use of images, videos, and simplified explanations to help all learners understand the historical context.	Students prepare a short report on an important historical discovery or archaeological finding.	Debate or discussion on the role of technology in uncovering historical mysteries.	Students gain knowledge of historical research methods and develop analytical and critical thinking skills.
Sep	23	Hornbill: The Adventure (Prose)	To make students aware of the importance of small things in one's life. To make students know that how a small change can change effect the course of time. To understand alternate history and imagination.	ACTIVITY - What if you get a chance to visit your past	Discussion on teamwork and crisis management. Group brainstorming.	Research note on alternate history.	Analyze cause-effect changes in history.	Students frame logical arguments effectively and develop critical thinking.
2ND PT- 5/10/26								
Oct	22	Snapshots: Birth (Prose)	To reflect on responsibility and human emotions.	Sketch on motherhood.	Emotional reflection activity.	Narrative writing.	Case study on ethical responsibility.	Students analyze human values and resilience.
		Hornbill: Childhood (Poem)	To reflect on growth and self-awareness.	Reflective poem writing.	Group discussion on adolescence.	Presentation on childhood memories.	Analyze philosophical tone.	Students interpret theme of maturity and identity.
		Hornbill: Father to Son (Poem)	To analyze generational conflict and reconciliation.	Dialogue writing between generations.	Discussion on communication gaps	Essay on parent-child relationship.	Role-play conflict resolution.	Students evaluate emotional and relational themes.
3RD PT -30/11/26								

Nov	16	Debate Writing	To develop argumentative writing skills.	Poster on debate topic.	Structured guidance format.	Write and present debate.	Mock debate session.	Students frame logical arguments effectively
		Hornbill: Silk Road (Prose)	To appreciate imagery in prose..	Mind map of Silk road	Importance of silk road in history and in present day	Prepare a AI generated image of the chapter silk road.	Analyze philosophical , ethical and spiritual tone.	Students develop analytical and creative thinking.
		Hornbill: The Tale of Melon City (Poem)	To understand satire and political humor.	Create satirical cartoon.	Group discussion on governance.	Write a short satirical paragraph.	Analyze irony in extract.	Students identify satire and social commentary effectively.
		4TH PT – 11/01/27						
Dec	24	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION
Jan	14	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION
Feb	22	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION

SUBJECT: MATHEMATIC (041)

Textbook: 1. NCERT

2.NCERT EXEMPLER

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	<p>1. Sets Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement.</p> <p>2. Relations & Functions Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (up to $\mathbb{R} \times \mathbb{R} \times \mathbb{R}$). Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions.</p>	Understand set operations, intervals, relations & functions, graph real functions	Venn diagram posters, Function graph art	Visual aids, peer tutoring, mapping cards	Survey data using Venn diagrams, Graph portfolio	Case study on relations, interval representation	Apply set operations, identify functions, sketch graphs
May	07	<p>3. Trigonometric Functions Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity $\sin^2 x + \cos^2 x = 1$, for all x. Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing $\sin(x \pm y)$ and $\cos(x \pm y)$ in terms of $\sin x$, $\sin y$, $\cos x$ & $\cos y$ and their simple applications. Deducing identities like the following</p>	Convert degree–radian, prove identities, apply formulas	Unit circle model, symmetry art	Animated demos, identity charts	Rotating unit circle model	Height & distance problems	Simplify identities, interpret trig graphs

		$\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}$, $\cot(x \pm y) = \frac{\cot x \mp \cot y}{1 \pm \cot x \cot y}$ $\sin(\alpha \pm \beta) = \sin \alpha \cos \beta \pm \cos \alpha \sin \beta$ $\cos(\alpha \pm \beta) = \cos \alpha \cos \beta \mp \sin \alpha \sin \beta$ $\sin 2\alpha = 2 \sin \alpha \cos \alpha$ $\cos 2\alpha = \cos^2 \alpha - \sin^2 \alpha$ $\tan 2\alpha = \frac{2 \tan \alpha}{1 - \tan^2 \alpha}$ $\sin 3\alpha = 3 \sin \alpha - 4 \sin^3 \alpha$ $\cos 3\alpha = 4 \cos^3 \alpha - 3 \cos \alpha$ Identities related to $\sin 2x$, $\cos 2x$, $\tan 2x$, $\sin 3x$, $\cos 3x$ and $\tan 3x$.						
June	16	4 Complex Numbers and Quadratic Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane. 5. Linear Inequalities Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.	Perform operations on complex numbers, solve inequalities graphically	Argand plane color plotting	Stepwise algebra support	Plot complex numbers, budgeting inequality problems	Profit constraint case study	Represent complex numbers, solve inequalities
July	26	6. Permutations and Combinations Fundamental principle of counting. Factorial n. (n!) Permutations and combinations, derivation of Formulae for nPr , nCr and their connections, simple applications	Apply counting principle, derive nPr & nCr	Seating arrangement role-play	Real object arrangements	Event arrangement planning	Puzzle-based counting problems	Differentiate permutation & combination
Aug	24	7. Binomial Theorem Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications. 8. Sequence and Series Sequence and Series. Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M	Expand binomials, find nth term & sums, AM-GM relation	Pascal triangle art	Pattern-based learning	Saving growth	Financial literacy problems	Apply binomial expansion & progression formulas
Sep	23	9. Straight Lines Brief recall of two-dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point-slope form, slope-intercept	Find slope, equation forms, distance formula	Coordinate geometry art	Graph board demonstrations	Map plotting activity	Navigation-based problems	Write equations of lines, solve coordinate problems

		form, two-point form, intercept form. Distance of a point from a line.						
Oct	22	10. Conic Sections Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.	Derive standard equations, understand properties	String-and-pin ellipse, cone cutting activity	Visual animations, physical models	Construct conics models	Reflective property applications	Identify conics & apply properties
Nov	16	11. Introduction to Three-dimensional Geometry Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points. 12. Limits and Derivatives Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relate it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions of polynomial and trigonometric functions.	Understand 3D coordinates, intuitive limits, derivative as rate of change	3D axis model, tangent art	Gradual abstract concept introduction	Motion experiment for rate of change	Real-life derivative problems	Solve 3D distance, basic derivative problems
Dec	24	13. Statistics Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.	Compute measures of dispersion	Data infographics	Calculator-supported practice	Class survey data analysis	Case study using real dataset	Interpret statistical data
Jan	14	14. Probability Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events.	Understand events, apply axiomatic probability	Tree diagram chart	Dice/coin experiments	Theoretical vs experimental probability	Risk assessment problems	Calculate probability of events
Feb	22	Revision	Revision	Revision	Revision	Revision	Revision	Revision

SUBJECT: PHYSICS (042)**Textbook: 1. NCERT****2.NCERT EXAMPLER**

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	<p>1. Vector 2.Kinematics 1-D, 2-D and Relative motion Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non-uniform motion, average speed and average velocity and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical and calculus treatment). Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors,</p>	<p>Define distance, displacement, speed, velocity & acceleration. Distinguish scalar & vector quantities. Solve problems using equations of motion. Interpret motion graphs. Apply vector operations.</p>	<p>Graphical art of motion diagrams; Rangoli-based vector addition patterns</p>	<p>Peer tutoring; visual graph aids; scaffolded numerical steps</p>	<p>Graph plotting activity; Projectile motion experiment</p>	<p>Real-life motion analysis (sports throw, vehicle motion)</p>	<p>Students solve numerical problems and interpret motion graphically and analytically</p>

		Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors projectile motion.						
May	07	<p>3. Newton laws of motion & Friction, Work, Energy and Power</p> <p>Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication. Work done by a constant force and a variable force; kinetic energy, work- energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces.</p>	Apply Newton's Laws. Solve friction problems. Explain conservation of momentum. Apply work-energy theorem. Distinguish conservative & non-conservative forces.	Poster on Newton's Laws in daily life	Use concrete examples; slow-step derivations; bilingual explanation	verify work-energy theorem (lab activity)	Collision case study; friction analysis in daily life	Students apply laws to real-life mechanics problems
June	16	4. Circular motion	Explain centripetal force. Solve banking	Circular mandala art to	Use simulations & visual	Collision experiment using	Analyze vehicle turning safety	Students analyze circular

		<p>(Horizontal and vertical motion), Collision, Centre of mass.</p> <p>Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road), motion in a vertical circle; elastic and inelastic collisions in one and two dimensions, Centre of mass of a two-particle system, momentum conservation and Centre of mass motion. Centre of mass of a rigid body; center of mass of a uniform rod.</p>	<p>& vertical circle problems. Apply momentum conservation in collisions. Calculate centre of mass.</p>	<p>explain circular motion</p>	<p>animations</p>	<p>balls</p>		<p>motion & momentum-based systems</p>
July	26	<p>5. Rotational Motion</p> <p>Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia,</p>	<p>Define torque & angular momentum. Apply conservation of angular momentum. Compare linear & rotational motion. Calculate moment of inertia (no derivation).</p>	<p>Warli art showing rotational activities (wheel, potter's wheel)</p>	<p>Hands-on rotating objects demonstration</p>	<p>Flywheel / rotational inertia demo</p>	<p>Skater spin analysis activity</p>	<p>Students solve rotational dynamics numericals confidently</p>

		radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).						
Aug	24	6. Gravitation Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential, escape speed, orbital velocity of a satellite, energy of an orbiting satellite.	State universal law of gravitation. Apply variation of g. Calculate escape speed & orbital velocity. Understand Kepler's laws.	Solar system model making	3D models for conceptual clarity	Determination of g using pendulum	Satellite orbit case study	Students apply gravitational concepts to planetary motion
Sep	23	7. Mechanical Properties of Solid Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy. Application of elastic behavior of materials (qualitative idea only). 8. Mechanical Properties of Fluids Pressure due to a fluid column; Pascal's law and	Explain stress-strain relation. Apply Hooke's law. Solve fluid pressure & viscosity problems. Apply Bernoulli's theorem.	Hydraulic lift model making	Lab demonstrations; tactile models	Verification of Bernoulli's principle	Capillary rise experiment	Students relate elasticity & fluid mechanics to real applications

		<p>its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications (Torricelli's law and Dynamic lift). Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.</p>						
Oct	22	<p>9. Thermal Properties of matter Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; C_p, C_v - calorimetry; change of state - latent heat capacity. Heat transfer- conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law.</p>	<p>Define heat & temperature. Apply calorimetry equation. Explain conduction, convection & radiation.</p>	<p>Heat transfer flowchart drawing</p>	<p>Real-life examples; guided problem solving</p>	<p>Specific heat experiment</p>	<p>Design insulation model activity</p>	<p>Students solve calorimetry and heat transfer problems</p>

Nov	16	<p>10. Thermodynamics and Kinetic theory of gases</p> <p>Thermal equilibrium and definition of temperature, zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics: Thermodynamic state variable and equation of state. Change of condition of gaseous state - isothermal, adiabatic, reversible, irreversible, and cyclic processes. Unit IX: Behavior of Perfect Gases and Kinetic Theory of Gases Chapter-12: Kinetic Theory Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equipartition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.</p>	State Zeroth, First & Second Laws. Solve gas law problems. Explain kinetic interpretation of temperature. Apply equation of state.	PV diagram graphical art	Stepwise derivations; conceptual animations	Boyle's law experiment	Heat engine model activity	Students analyze thermodynamic processes numerically
Dec	24	<p>11. Simple Harmonic Motion</p> <p>Periodic motion - time period, frequency, displacement as a function</p>	Define SHM. Derive time period of pendulum. Apply SHM equations. Analyze	Pendulum wave art demonstration	Use physical pendulum models	Time period measurement of pendulum	Spring oscillation activity	Students solve SHM-based

		of time, periodic functions and their applications. Simple harmonic motion (S.H.M), uniform circular motion and its equations of motion; phase; oscillations of a loaded spring-restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.	energy changes.					numerical problems
Jan	14	12. Wave and Sound Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.	Differentiate transverse & longitudinal waves. Apply wave equation. Explain harmonics & beats. Solve numerical problems.	Musical instrument demonstration	Audio-visual aids; sound simulations	Resonance tube experiment	String vibration activity	Students analyze wave behavior mathematically
Feb	22	Revision	Revision	Revision	Revision	Revision	Revision	Revision

SUBJECT: CHEMISTRY(043)**Textbook: 1. NCERT TEXTBOOK****2.NCERT EXEMPLAR**

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	Some Basic Concepts of Chemistry General Introduction: Importance and scope of Chemistry, Nature of matter, laws of chemical combination, Dalton's atomic theory: concept of elements, atoms and molecules, atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and calculations based on stoichiometry.	<ul style="list-style-type: none"> Define and explain the concept of atoms, molecules, and moles. Derive and apply laws of chemical combination. Perform stoichiometric calculations. 	<ul style="list-style-type: none"> Diagram showing chemical equations. Poster on the mole concept (1 mole = 6.022×10^{23} particles). 	<ul style="list-style-type: none"> Use visual aids for atomic structure and mole concept. Peer learning for calculation-based problems. Real-life examples to explain stoichiometric calculations. 	<ul style="list-style-type: none"> Stoichiometry calculations of mass and volume in chemical reactions. Determination of molecular weight using experimental methods. 	<ul style="list-style-type: none"> Solve basic stoichiometric problems. Identify and explain chemical laws. Relate mole concept to practical applications (e.g., industrial reactions). 	<ul style="list-style-type: none"> Students will be able to understand and apply basic chemical laws and concepts of stoichiometry. Students will demonstrate proficiency in mole concept calculations and will be able to solve stoichiometric problems effectively.
May	07	Structure of Atom Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals, quantum numbers, shapes of s, p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms, stability of half-filled and completely filled orbital	<ul style="list-style-type: none"> Explain atomic structure and subatomic particles. Relate the properties of electrons, protons, and neutrons. Understand quantum numbers and electron configuration. 	<ul style="list-style-type: none"> <u>Explain atomic structure and subatomic particles.</u> <u>Relate the properties of electrons, protons, and neutrons.</u> <u>Understand quantum numbers and electron configuration.</u> 	<ul style="list-style-type: none"> <u>Use simplified charts to explain quantum numbers.</u> <u>Discuss atomic models through storytelling.</u> <u>Diagrams of electron configuration for clarity.</u> 	<ul style="list-style-type: none"> Study atomic spectra and electron configuration. Prepare a model for the structure of atoms. 	<ul style="list-style-type: none"> Identify the subatomic particles and their roles. Understand and apply quantum numbers in atomic structure. Explain Bohr's model and its applications. 	<ul style="list-style-type: none"> Students will be able to identify subatomic particles and understand their properties. Students will demonstrate the ability to explain atomic structure using models and electron configuration. Students will apply quantum numbers to describe electron configurations.

June	16	<p>Classification of Elements and Periodicity in Properties Significance of classification, brief history of the development of periodic table, modern periodic law and the present form of periodic table, periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valiancy, Nomenclature of elements with atomic number greater than 100.</p>	<ul style="list-style-type: none"> • Understand the periodic law and the modern periodic table. • Discuss the trends in atomic properties across periods and groups. 	<ul style="list-style-type: none"> • Art models of the periodic table with block color coding. • Create a timeline showing the development of the periodic table. 	<ul style="list-style-type: none"> • Use visual aids for explaining periodic trends. • Group activity to compare elements from different groups. 	<ul style="list-style-type: none"> • Study the properties of elements across periods and groups. • Periodic table activity (grouping elements based on properties). 	<ul style="list-style-type: none"> • Understand periodic trends and their relation to atomic structure. • Apply the concept of blocks in classification. • Predict trends in atomic properties. 	<ul style="list-style-type: none"> • Students will be able to classify elements according to periodic properties. • Students will understand periodic trends and use them to predict element behavior in chemical reactions. • Students will apply the periodic law to understand trends in atomic size, ionization energy, and electron affinity.
July	26	<p>Chemical Bonding and Molecular Structure Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules (qualitative idea only), Hydrogen bond.</p>	<ul style="list-style-type: none"> • <u>Understand ionic and covalent bonding.</u> • <u>Apply VSEPR theory to predict molecular shapes.</u> • <u>Study hybridization and bond formation.</u> 	<ul style="list-style-type: none"> • <u>Draw models of molecules (e.g., H₂O, CO₂).</u> • <u>Create 3D molecular structures using paper or clay.</u> 	<ul style="list-style-type: none"> • <u>Use models and diagrams to explain bonding and structure.</u> • <u>Group activity for molecular shape prediction using VSEPR theory.</u> 	<ul style="list-style-type: none"> • Study of bond angles and molecular geometry (using physical models). • Prepare molecular models (model kit or 3D simulation). 	<ul style="list-style-type: none"> • Classify bonds and describe molecular structures. • Predict shapes of molecules using VSEPR theory. • Understand hybridization and its significance in bonding. 	<ul style="list-style-type: none"> • Students will be able to classify bonds as ionic or covalent and predict their properties. • Students will demonstrate an understanding of molecular shapes using VSEPR theory. • Students will apply hybridization concepts to explain bonding in molecules.
Aug	24	<p>Chemical Thermodynamics Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics -internal</p>	<ul style="list-style-type: none"> • Understand the first and second laws of thermodynamics. • Apply concepts like enthalpy, entropy, and Gibbs 	<ul style="list-style-type: none"> • <u>Create a chart of thermodynamic processes.</u> • <u>Demonstration of exothermic and endothermic</u> 	<ul style="list-style-type: none"> • <u>Use real-life examples to explain thermodynamic processes.</u> • <u>Practice solving problems involving</u> 	<ul style="list-style-type: none"> • Heat exchange experiment (virtual or real). • Demonstration of spontaneous reactions using calorimetry. 	<ul style="list-style-type: none"> • Solve problems on entropy and Gibbs free energy. • Understand the relationship between 	<ul style="list-style-type: none"> • Students will apply the first and second laws of thermodynami

		energy and enthalpy, heat capacity and specific heat, measurement of ΔU and ΔH , Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. Second law of Thermodynamics (brief introduction), Introduction of entropy as a state function, Gibb's energy change for spontaneous and non-spontaneous processes, criteria for equilibrium, Third law of thermodynamics (brief introduction).	free energy to chemical reactions.	<u>reactions.</u>	<u>heat, work, and energy.</u>		spontaneity and Gibbs free energy.	<p>cs to chemical reactions.</p> <ul style="list-style-type: none"> • Students will calculate changes in enthalpy, entropy, and Gibbs free energy. • Students will solve problems related to the spontaneity of reactions.
Sep	23	<p>Equilibrium Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium – Le Chatelier's principle, ionic equilibrium-ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH, hydrolysis of salts (elementary idea), buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples).</p> <p>Term-1 Revision</p>	<ul style="list-style-type: none"> • Define chemical equilibrium and its characteristics. • Understand the dynamic nature of equilibrium. • Apply Le Chatelier's principle to predict changes in equilibrium. • Understand and calculate equilibrium constant (Kc, Kp). • Learn the effects of concentration, temperature, and pressure on equilibrium. • Relate the concept of equilibrium to industrial processes. 	<ul style="list-style-type: none"> • Visual representation of reversible reactions and equilibrium. • Diagram illustrating Le Chatelier's principle. • Flowchart showing equilibrium shift under different conditions. 	<ul style="list-style-type: none"> • Use real-life examples like ammonia synthesis (Haber process) to explain equilibrium. • Provide visual aids and animations to show how equilibrium shifts with changing conditions. • Group activity to compare reactions at equilibrium under different conditions. 	<ul style="list-style-type: none"> • Conduct an experiment to study the effect of temperature on equilibrium. • Use virtual simulations to show dynamic equilibrium in a closed system. • Demonstrate an experiment on the effect of pressure on equilibrium using colored solutions (e.g., N_2O_4 and NO_2). 	<ul style="list-style-type: none"> • Study the effect of concentration, temperature, and pressure on equilibrium shifts. • Conduct hands-on activities to understand the equilibrium constant. • Use the Le Chatelier's principle to predict the shift in equilibrium. 	<ul style="list-style-type: none"> • Students will define and explain the concept of chemical equilibrium. • Students will predict changes in equilibrium by applying Le Chatelier's Principle. • Students will solve problems related to equilibrium constant (Kc and Kp). • Students will demonstrate the ability to calculate equilibrium constants and apply the principles in industrial processes.
Oct	22	<p>Redox Reactions Concept of oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number, applications of redox reactions.</p>	<ul style="list-style-type: none"> • Understand the concepts of oxidation and reduction. • Identify oxidizing and reducing agents in redox reactions. • Learn how to balance redox reactions using the half-reaction method. • Study electrochemical cells 	<ul style="list-style-type: none"> • Diagram illustrating oxidation and reduction processes. • Flowchart to represent redox reactions. • Visual 	<ul style="list-style-type: none"> • Use real-life examples like rusting (corrosion) and bleaching to demonstrate redox reactions. • Provide simplified half-reaction methods for 	<ul style="list-style-type: none"> • Conduct an experiment to observe the process of corrosion. • Perform a simple electrochemical cell experiment using copper and zinc. • Use the half-reaction 	<ul style="list-style-type: none"> • Study real-life applications of redox reactions like corrosion, bleaching, and disinfection. • Understand and apply the concept of electrode potentials and electrochemical 	<ul style="list-style-type: none"> • Students will define and understand oxidation and reduction reactions. • Students will identify oxidizing and reducing agents in reactions. • Students will demonstrate the

			and electrode potentials. • Apply redox reactions in real-world applications like corrosion and bleaching.	representation of electrochemical cells and their components.	balancing redox equations. • Include group discussions to explore the role of redox reactions in industries.	method to balance redox equations.	cells. • Balance redox reactions using the half-reaction method.	ability to balance redox reactions using the half-reaction method. • Students will apply redox concepts to real-life scenarios such as corrosion, bleaching, and industrial applications.
Nov	16	Organic Chemistry – Some Basic Principles and Techniques General introduction, methods of purification, qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond: inductive effect, electrometric effect, resonance and hyper conjugation. Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.	<ul style="list-style-type: none"> Understand the basics of organic chemistry and the importance of functional groups. Learn the IUPAC nomenclature for naming organic compounds. Understand isomerism and classify isomers. Study the physical and chemical properties of organic compounds. Learn methods of purification for organic compounds. 	<ul style="list-style-type: none"> Diagrams of organic compounds showing functional groups. Create visual charts to demonstrate isomerism (structural and stereoisomerism). Flowchart illustrating purification methods (distillation, recrystallization). 	<ul style="list-style-type: none"> Use real-life examples to relate organic compounds (e.g., food additives, plastics). Group work to practice naming organic compounds using IUPAC rules. Simplified examples and visual aids for isomerism. 	<ul style="list-style-type: none"> Conduct an experiment on the distillation and recrystallization of organic compounds. Identify and practice purification techniques. Perform qualitative analysis to identify functional groups in organic compounds. 	<ul style="list-style-type: none"> Experiment on purification of an organic compound by recrystallization. Hands-on activity of identifying functional groups using simple tests. Case studies on the role of organic chemistry in real-world applications (e.g., pharmaceutical industry). 	<ul style="list-style-type: none"> Students will be able to classify and name organic compounds using IUPAC nomenclature. Students will understand isomerism and distinguish between structural and stereoisomers. Students will apply purification techniques like distillation, recrystallization, and chromatography. Students will be able to identify functional groups in organic compounds and understand their reactivity.
Dec	24	Hydrocarbons Aliphatic Hydrocarbons Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis. Alkenes - Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical	Understand the Basics of Hydrocarbons <ul style="list-style-type: none"> Define hydrocarbons and classify them into alkanes, alkenes, alkynes, and aromatic hydrocarbons. Recognize structural formulas and molecular formulas of hydrocarbons. Understand the concepts of 	Draw hydrocarbon tree diagram with colors for each class, Make a colorful IUPAC naming poster, Graphical representation of property trends, Comic strip showing “reaction journey” of a hydrocarbon	Use visual aids and simple charts; verbal explanation for diverse learners, Pair work to support weaker learners; stepwise naming charts, Use 3D models to aid understanding; pair weaker students with stronger, Use charts and visual graphs for clarity, Demonstrate safe experiments;	Create a chart showing classification with examples, Worksheet on converting common names to IUPAC names, Model or sketch all isomers of C ₄ H ₁₀ or C ₃ H ₆ , Prepare a tabular comparison of physical properties, Poster showing uses of benzene derivatives in industry	Molecular formula identification game; group discussion on types of hydrocarbons, Naming challenge: students name given compounds in pairs, Identify and draw all possible isomers of given formula, Boiling point trend experiment with hydrocarbons, Model-building	Understand the Basics of Hydrocarbons Define hydrocarbons and classify them into alkanes, alkenes, alkynes, and aromatic hydrocarbons. Recognize structural formulas and molecular formulas of hydrocarbons. Understand the concepts of homologous series

	<p>reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition. Alkynes - Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water. Aromatic Hydrocarbons Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of functional group in mono substituted benzene, carcinogenicity and toxicity</p> <p>s & p Block Elements Electronic configuration, atomic & Ionic radii, Ionization Enthalpy, Hydration Enthalpy and general trends in physical and chemical properties of s and p block elements across the periods and down the groups; unique behavior of the first element in each group.</p> <p>The Gaseous State Qualitative treatment of Gas laws, Ideal gas equation and deviations from it.</p>	<p>homologous series and functional groups.</p> <ul style="list-style-type: none"> • Explore Isomerism • Learn structural isomerism (chain, position, functional) in hydrocarbons. • Understand geometrical (cis-trans) isomerism in alkenes. • Recognize optical isomerism where applicable. <p>Understand Physical Properties</p> <ul style="list-style-type: none"> • Study boiling points, melting points, density, and solubility trends. • Correlate physical properties with molecular structure. <p>Learn Chemical Properties and Reactions</p> <ul style="list-style-type: none"> • Identify types of reactions: substitution, addition, elimination, combustion. • Write and balance chemical equations for hydrocarbon reactions. • Understand mechanisms of reactions like free radical substitution in alkanes. <p>Develop Nomenclature Skills</p> <ul style="list-style-type: none"> • Use IUPAC rules to name hydrocarbons 		<p>provide stepwise reaction charts,</p>		<p>benzene ring; identify substituents</p>	<p>and functional groups. Explore Isomerism Learn structural isomerism (chain, position, functional) in hydrocarbons. Understand geometrical (cis-trans) isomerism in alkenes. Recognize optical isomerism where applicable. Understand Physical Properties Study boiling points, melting points, density, and solubility trends. Correlate physical properties with molecular structure. Learn Chemical Properties and Reactions Identify types of reactions: substitution, addition, elimination, combustion. Write and balance chemical equations for hydrocarbon reactions. Understand mechanisms of reactions like free radical substitution in alkanes. Develop Nomenclature Skills Use IUPAC rules to name hydrocarbons systematically. Distinguish between common and IUPAC names. Apply Knowledge to Real-World Contexts Connect hydrocarbon</p>
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		<p>(The ABOVE syllabus will be assessed only formatively to reinforce understanding without adding to summative assessments)</p>	<p>systematically.</p> <ul style="list-style-type: none"> Distinguish between common and IUPAC names. <p>Apply Knowledge to Real-World Contexts</p> <ul style="list-style-type: none"> Connect hydrocarbon chemistry to fuels, lubricants, polymers, and environmental impact. Understand the significance of cracking, refining, and petrochemicals. <p>Analytical and Problem-Solving Skills</p> <ul style="list-style-type: none"> Deduce structures from molecular formulas. Predict products of hydrocarbon reactions. Solve numerical problems related to hydrocarbon formulas and isomerism. 					<p>chemistry to fuels, lubricants, polymers, and environmental impact.</p> <p>Understand the significance of cracking, refining, and petrochemicals.</p> <p>Analytical and Problem-Solving Skills</p> <p>Deduce structures from molecular formulas.</p> <p>Predict products of hydrocarbon reactions.</p> <p>Solve numerical problems related to hydrocarbon formulas and isomerism.</p>
Jan	14	Term-2 Revisions						
Feb	22							

SUBJECT: BIOLOGY

Textbook: 1. NCERT

2.NCERT EXAMPLER

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	<p>Chapter 8 : Cell : The Unit of Life (Cell theory and cell as the basic unit of life; Structure of prokaryotic and eukaryotic cell; Plant cell and animal cell; Cell envelope, cell membrane, cell wall; Cell organelles– structure and function; Endomembrane system- endoplasmic reticulum, Golgi bodies, lysosomes, vacuoles; mitochondria, ribosomes, plastids, microbodies; Cytoskeleton, cilia, flagella, centrioles (ultra structure and function); Nucleus– nuclear membrane, chromatin, nucleolus)</p> <p>Chapter 10 : Cell Cycle and Cell Division (Cell cycle, mitosis, meiosis and their significance.)</p>	<p>A. Cell (Structure & Function)</p> <ul style="list-style-type: none"> • Explain the discovery of the cell and contributions of scientists like Robert Hooke and Theodor Schwann. • Describe and differentiate between prokaryotic and eukaryotic cells. • Identify and explain the structure and functions of major cell organelles. • Compare plant and animal cells with labeled diagrams. • Understand the structure and function of plasma membrane and cell wall. <p>C. Cell Division</p> <ul style="list-style-type: none"> • Describe the cell cycle and its phases. • Differentiate between mitosis and meiosis. • Explain the significance of mitosis in growth and repair. • Explain the role of meiosis in reproduction and genetic variation. • Identify stages of mitosis and meiosis 	<ul style="list-style-type: none"> • 3D Cell Models: Students create models of plant/animal cells using clay, recycled materials, or digital tools. • Mitosis Flipbook: Create a flipbook showing stages of mitosis. • Cell Cycle Poster: Design creative posters showing interphase, prophase, metaphase, anaphase, and telophase. • Role Play: Students act as chromosomes, spindle fibers, and centrioles to demonstrate cell division. 	<ul style="list-style-type: none"> • Use visual aids, charts, and 3D models for visual learners. • Provide simplified notes and key-point summaries for diverse learning needs. • Use bilingual explanation where necessary. • Provide tactile models for differently-abled students. • Encourage peer learning and group discussions. • Allow alternative assessments (oral presentation, model making, digital presentation). 	<p>Projects</p> <p>Comparative Study of Plant and Animal Cells (chart/model format).</p> <p>Practical Activities Temporary slide preparation of onion peel to observe cells. Identification of stages of mitosis using prepared slides.</p>	<ul style="list-style-type: none"> • Case Study: What happens if cell division goes uncontrolled? (Link to cancer concept at basic level.) • Data Interpretation: Analyze a diagram of the cell cycle and answer reasoning-based questions. • Problem Solving: Why are red blood cells enucleated in mammals? • Higher Order Thinking Question: Why is meiosis called reduction division? 	<ul style="list-style-type: none"> • Accurately draw and label cell structures. • Classify biomolecules and explain their functions. • Differentiate between mitosis and meiosis with diagrams. • Apply understanding of cell division to real-life situations (growth, repair, reproduction). • Demonstrate scientific skills such as observation, analysis, and logical reasoning. • Work collaboratively in projects and presentations.

			through diagrams and microscopic observation.					
May	07	<p>Chapter 9 : Biomolecules</p> <p>(Chemical constituents of living cells: Biomolecules– structure and function of proteins, carbohydrates, lipid, nucleic acids; Enzymes– types, properties, enzyme action.)</p>	<p>A. Biomolecules</p> <ul style="list-style-type: none"> Classify biomolecules into carbohydrates, proteins, lipids, and nucleic acids. Explain structure and function of proteins, including the role of enzymes. Understand the importance of DNA and RNA in living systems. Relate biomolecules to daily life (nutrition, metabolism, health). 	<ul style="list-style-type: none"> Biomolecule Mandala: Draw artistic representations of carbohydrate, protein, lipid, and DNA structures. 	<ul style="list-style-type: none"> Use real plant specimens for hands-on observation. Provide tactile diagrams/models for visually impaired learners. Use simple language and visual charts for complex terms like placentation and aestivation. Encourage group learning and peer explanation. Provide audio-visual aids for better conceptual clarity. Offer flexible assessment methods (oral, model-based, written). 	<p>Investigation of Food Samples for presence of starch, protein, and fats.</p> <p>Research Project: Role of enzymes in digestion.</p> <p>Survey: Nutritional analysis of daily diet based on biomolecules. Biochemical tests (iodine test for starch, Biuret test for protein, etc.).</p>	<ul style="list-style-type: none"> Concept Mapping: Create a flow chart linking biomolecules to metabolism. 	<ul style="list-style-type: none"> Perform basic biochemical tests correctly. Demonstrate scientific skills such as observation, analysis, and logical reasoning. Work collaboratively in projects and presentations.
June	16	<p>Chapter 5 : Morphology of Flowering Plants</p> <p>Chapter 6 : Anatomy of Flowering Plants</p> <p>(Tissues; Anatomy and functions of different parts of</p>	<p>A. Morphology of Flowering Plants</p> <ul style="list-style-type: none"> Understand external structure of flowering plants: root, stem, leaf, inflorescence, flower, fruit, and seed. 	<ul style="list-style-type: none"> Organ Diagrams: Draw and label root, stem, leaf, flower, fruit, and seed structures. Inflorescence Chart: Creative diagrams of types of inflorescence. 	<ul style="list-style-type: none"> Use enlarged, color-coded diagrams and digital microscopy videos. Provide simplified notes and structured 	<p>Suggested Projects</p> <p>Comparative Study of Plant Families: Prepare charts comparing characteristics of Fabaceae & other families.</p>	<ul style="list-style-type: none"> Case Study: Why is potato called a stem and not a root? Application Question: Why do xerophytic plants have modified leaves? 	<ul style="list-style-type: none"> Identify and classify plants based on morphological characteristics. Draw and label diagrams of plant parts accurately.

		<p>flowering plants: Root, stem, leaf, inflorescence-cymose and racemose, flower, fruit and seed)</p>	<ul style="list-style-type: none"> • Describe types of roots, stems, leaves, and inflorescence. • Identify floral whorls, symmetry, and types of flowers. • Understand modifications of plant organs and their adaptive significance. • Relate morphology to classification and plant identification. <p>B. Anatomy of Flowering Plants</p> <ul style="list-style-type: none"> • Define plant anatomy and its importance. • Differentiate between meristematic and permanent tissues. • Classify simple tissues (parenchyma, collenchyma, sclerenchyma) and complex tissues (xylem and phloem). • Describe internal structure of dicot and monocot root, stem, and leaf. • Explain secondary growth in dicot stem and root. • Compare anatomical differences between monocots and dicots. 	<ul style="list-style-type: none"> • 3D Models: Prepare cross-sectional models of dicot and monocot stem, root, and leaf. • Tissue Charts: Color-coded charts for meristematic and permanent tissues. • Secondary Growth Flowchart: Illustrate cambium activity and secondary xylem/phloem formation. 	<p>comparison tables.</p> <ul style="list-style-type: none"> • Use tactile and 3D models for better conceptual clarity. • Encourage peer learning and group discussion. • Use real-life examples (fermentation, seed germination, wood formation). • Provide flexible assessment options (oral explanation, model-making, chart presentation). 	<p>Study of Local Flora: Survey plants in the school garden and classify them.</p> <p>Modification Study: Collect examples of stem/root modifications (e.g., potato, ginger, carrot). Identification of inflorescence types in real specimens.</p> <p>Comparative Study: Dicot vs Monocot anatomy (chart/model format).</p> <p>Practical Activities Study T.S. of dicot and monocot root and stem using prepared slides. Identification of xylem and phloem tissues. Demonstration of anaerobic respiration using yeast and sugar solution. Observation of heat production in germinating seeds.</p>	<ul style="list-style-type: none"> • Data Analysis: Observe and classify unknown plants based on morphological features. • Diagram-Based Questions: Identify type of placentation or aestivation from given figures. • Higher Order Thinking: How does morphology help in crop improvement and agriculture? • Application Question: How does sclerenchyma provide mechanical strength? 	<ul style="list-style-type: none"> • Differentiate between various root, stem, and leaf modifications. • Interpret floral formula and floral diagrams correctly. • Apply knowledge of morphology in practical plant identification • Identify and classify plant tissues accurately. • Draw and label anatomical structures neatly. • Differentiate between dicot and monocot anatomy. • Demonstrate scientific skills such as observation, experimentation and analytical reasoning.
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July	26	<p>Chapter 11 : Photosynthesis in Higher Plants (Photosynthesis as a means of Autotrophic nutrition; Where does photosynthesis take place; How many pigments are involved in Photosynthesis (Elementary idea); Photochemical and biosynthetic phases of photosynthesis; Cyclic and non cyclic photophosphorylation; Chemiosmotic hypothesis; Photorespiration; C3 and C4 pathways; Factors affecting photosynthesis.)</p> <p>Chapter 12 : Respiration in Plants (Exchange of gases; Cellular respiration – glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); Energy relations – Number of ATP molecules generated;</p>	<p>A. Photosynthesis in Higher Plants</p> <ul style="list-style-type: none"> • Define photosynthesis and explain its importance. • Describe structure of chloroplast. • Explain light reaction, dark reaction, cyclic and non-cyclic photophosphorylation. • Describe Calvin cycle (C3 pathway) and differentiate C3, C4, and CAM pathways. • Explain factors affecting photosynthesis. <p>B. Plant Growth and Development</p> <ul style="list-style-type: none"> • Define growth, development, and growth curve. • Explain phases of plant growth and measurement of growth rate. • Describe plant growth regulators (auxins, gibberellins, cytokinins, ethylene, ABA). • Explain photoperiodism, vernalization, seed dormancy, and germination. 	<p>Chloroplast & Photosynthesis Models: 3D models and flowcharts for light and dark reactions.</p> <ul style="list-style-type: none"> • Respiration Flowchart: Draw artistic flowcharts of glycolysis, Krebs cycle and ETS. • ATP Poster: Create a creative poster representing ATP as the “energy currency.” • Comparison Chart: Prepare creative diagrams comparing aerobic and anaerobic respiration. • Growth Curve & Hormone Maps: Illustrative charts for plant growth phases and regulators. 	<ul style="list-style-type: none"> • Use visual aids, color-coded diagrams, and animations for complex processes. • Provide simplified notes, bilingual explanations, and stepwise charts. • Use tactile/3D models for differently-abled students. • Encourage peer discussions, group projects, and collaborative activities. • Provide alternative assessment methods (oral, model-making, charts, digital presentations). 	<p>Suggested Projects Study factors affecting photosynthesis in plants. Comparative study of C3, C4, and CAM plants.</p> <p>Investigation of Respiration: Study CO₂ release during respiration. Survey: Effect of physical activity on breathing rate. Measurement of plant growth and observation of germination.</p> <p>Practical Activities Starch test in leaves. Oxygen release during photosynthesis. Seed germination observation and phototropism experiment.</p>	<ul style="list-style-type: none"> • Case Studies: CAM plants in deserts, use of gibberellins in agriculture, importance of taxonomy. • Data Interpretation: Light intensity vs photosynthesis, growth curve analysis, ATP/respiration charts. • Data Interpretation: Analyze ATP yield chart from glucose breakdown. • Problem Solving: Why do stored grains require proper ventilation? • Higher Order Thinking Question: Why is aerobic respiration more efficient than anaerobic respiration? • Higher Order Thinking: Why C4 plants are more efficient in tropics, why viruses are excluded from kingdoms. 	<ul style="list-style-type: none"> • Explain photosynthesis, plant growth, respiration, and classification clearly. • Explain the complete process of respiration clearly. • Interpret RQ values and ATP production logically. • Apply understanding of anatomy and respiration in agriculture and daily life. • Develop observation, analytical, and experimental skills. • Work collaboratively on projects, charts, models, and presentations.
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		<p>Amphibolic pathways; Respiratory quotient.)</p> <p>Chapter 13 : Plant Growth and Development (Seed germination; Phases of plant growth and plant growth rate; Conditions of growth; Differentiation, dedifferentiation and redifferentiation; Sequence of developmental process in a plant cell; Growth regulators–auxin, gibberellin, cytokinin, ethylene, ABA; Seed dormancy)</p>						
Aug	24	<p>Chapter 1 : The Living World (What is living?; Biodiversity; Need for classification; Three domain of life; Taxonomy & Systematics; Concept of species and taxonomical hierarchy; Binomial nomenclature)</p> <p>Chapter 2 : Biological Classification (Five kingdom</p>	<p>A. The Living World</p> <ul style="list-style-type: none"> • Define life and describe characteristics of living organisms. • Explain biodiversity and levels of biological organization. • Understand taxonomic hierarchy: species, genus, family, order, class, phylum, kingdom. • Apply binomial nomenclature correctly. • Understand the role of taxonomy and systematics. 	<ul style="list-style-type: none"> • Taxonomy Tree: Creative hierarchical diagrams of classification. • Kingdom Charts: Color-coded charts for kingdoms and plant groups. • Life Cycle Diagrams: Illustrate alternation of generations in algae, bryophytes, and pteridophytes. 	<ul style="list-style-type: none"> • Use enlarged diagrams, animations, and visual aids for complex life cycles. • Provide simplified tables and stepwise summaries for taxonomy. • Encourage peer discussions and group activities. 	<p>Suggested Projects</p> <p>Survey local flora and fauna; prepare a biodiversity report. Prepare herbarium sheets of representative plants. Comparative study of monocots and dicots.</p>	<ul style="list-style-type: none"> • Case Study: Why are viruses not included in the plant or animal kingdom? • Application Question: How does classification help in identifying useful plants? • Diagram-Based Reasoning: Identify plant group based on morphological/structural features. 	<ul style="list-style-type: none"> • Describe characteristics of living organisms and biodiversity clearly. • Apply binomial nomenclature and classify organisms accurately. • Identify and classify plants into

	<p>classification; Salient features and classification of Monera; Protista and Fungi into major groups; Lichens; Viruses and Viroids) Chapter 3 : Plant Kingdom (Salient features and classification of plants into major groups- Algae, Bryophytes, Pteridophytes, Gymnosperm and Angiosperm (three to five salient and distinguishing features and at least two examples of each category); Angiosperms-classification up to class, characteristic features and examples.)</p>	<p>B. Biological Classification</p> <ul style="list-style-type: none"> • Explain the basis of classification systems. • Differentiate between two-kingdom, five-kingdom, and modern classification systems. • Describe characteristics of Monera, Protista, Fungi, Plantae, and Animalia. • Explain the structure and importance of viruses, viroids, and lichens. • Understand the significance of proper kingdom-level classification. <p>C. Plant Kingdom</p> <ul style="list-style-type: none"> • Explain general characteristics of plants. • Classify plants into major groups: Algae, Bryophytes, Pteridophytes, Gymnosperms, and Angiosperms. • Understand alternation of generations in plant life cycles. • Identify key features and economic importance of each plant group. • Differentiate between monocots and dicots. 	<ul style="list-style-type: none"> • Biodiversity Collage: Photos or sketches of local flora and fauna. • Organism Models: 3D or clay models for representative plants (algae, bryophytes, ferns). 	<ul style="list-style-type: none"> • Use tactile models for differently-abled learners. • Provide alternative assessments such as oral presentations, charts, or models. 	<p>Study and classify algae, bryophytes, and pteridophytes from nearby water bodies or gardens. Create charts of economic importance of different plant groups. Practical Activities Observation of specimens of algae, bryophytes, and ferns under microscope. Study alternation of generations using models or slides. Preparation of comparative tables for kingdoms and plant groups.</p>	<ul style="list-style-type: none"> • Problem Solving: Determine the evolutionary relationship among plant groups. • Higher Order Thinking: Why is alternation of generations important in plant reproduction? 	<p>appropriate groups.</p> <ul style="list-style-type: none"> • Explain alternation of generations and life cycles of plants. • Understand economic and ecological importance of plant groups. • Develop observation, analytical, and reasoning skills. • Work collaboratively on projects, models, and charts.
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Sep	23	<p>Chapter 4 : Animal Kingdom (Salient features and classification of animals- non chordate up to phyla level and chordate up to classes level (three to five salient features and at least two examples)</p> <p>Chapter 7 : Structural Organisation in Animals (Morphology, anatomy and functions of different systems of Frog)</p>	<p>A. Animal Kingdom</p> <ul style="list-style-type: none"> • Understand general characteristics of animals. • Classify animals into major phyla: Porifera, Coelenterata, Platyhelminthes, Nematoda, Annelida, Arthropoda, Mollusca, Echinodermata, Chordata. • Explain the basis of classification: symmetry, coelom, segmentation, and embryonic development. • Describe distinguishing features and examples of each phylum. • Understand economic and ecological importance of different animal groups. <p>B. Structural Organisation in Animals</p> <ul style="list-style-type: none"> • Explain levels of structural organization: cell, tissue, organ, organ system. • Describe epithelial, connective, muscular, and nervous tissues in animals. • Understand types and functions of animal organ systems: digestive, circulatory, respiratory, excretory, 	<ul style="list-style-type: none"> • Animal Phyla Charts: Creative diagrams showing major phyla, examples, and features. • Tissue Models: 3D clay or paper models for epithelial, muscular, connective, and nervous tissues. • Organ System Diagrams: Flowcharts for circulatory, digestive, and respiratory systems. • Comparative Tables: Open vs closed circulatory system, coelom types. • Role Play/Modeling: Demonstrate function of heart, lungs, or neuron transmission. 	<ul style="list-style-type: none"> • Use enlarged diagrams, animations, and videos of organ systems. • Provide simplified tables for phylum characteristics and tissue types. • Encourage group discussions, peer learning, and collaborative model-making. • Use tactile models for differently-abled learners. • Offer alternative assessment options (oral explanations, charts, models, digital presentations). 	<p>Suggested Projects</p> <p>Comparative study of animal phyla. Study of tissue structure and functions using prepared slides. Observational study of digestive or circulatory systems using charts or models. Survey of local animal diversity and habitat study.</p> <p>Practical Activities</p> <p>Microscopic observation of epithelial, muscular, connective, and nervous tissues. Comparative charts of organ systems in vertebrates and invertebrates. Identification of animals and their phyla using specimens or images.</p>	<ul style="list-style-type: none"> • Case Study: Why do coelomates have more complex organ systems than acoelomates? • Application Question: How does segmentation benefit an annelid? • Diagram-Based Reasoning: Identify tissue types or organ systems from labeled diagrams. • Problem Solving: Why is a closed circulatory system more efficient than an open system? • Higher Order Thinking: How do tissues and organ systems integrate to maintain homeostasis? 	<ul style="list-style-type: none"> • Classify animals into appropriate phyla based on structural characteristics. • Identify and differentiate tissue types with their functions. • Explain structure and function of major organ systems. • Compare open and closed circulatory systems and other key physiological differences. • Develop observation, analytical, and diagrammatic skills. • Apply knowledge of animal organization to real-life biology and ecology contexts. • Work collaboratively on projects,
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			nervous, and reproductive. <ul style="list-style-type: none"> • Differentiate between open and closed circulatory systems. • Explain organization and integration of organs for maintaining homeostasis. 					models, and charts.
Oct	22	<p>Chapter 14 : Breathing and Exchange of Gases (Respiratory organs in animals (recall only); Respiratory system in humans; Mechanism of breathing and its regulation in humans– Exchange of gases, transport of gases and regulation of respiration, Respiratory volumes; Disorders related to respiration-Asthma, Emphysema, Occupational respiratory disorders.)</p> <p>Chapter 15 : Body Fluids and Circulation (Composition of blood, blood groups, coagulation of blood; Composition of lymph and its function; Human circulatory system– Structure of human</p>	<p>A. Breathing and Exchange of Gases</p> <ul style="list-style-type: none"> • Explain the structure of human respiratory system. • Describe the mechanism of breathing: inspiration and expiration. • Understand the process of external and internal respiration. • Explain transport of oxygen and carbon dioxide in blood. • Understand the role of hemoglobin in gas exchange. • Describe respiratory volumes and their physiological significance. <p>B. Body Fluids and Circulation</p> <ul style="list-style-type: none"> • Describe composition and functions of blood and lymph. • Explain blood groups and the importance of ABO and Rh systems. • Describe structure and functions of the heart. 	<ul style="list-style-type: none"> • Respiratory System Models: 3D models or clay diagrams of lungs, trachea, and alveoli. • Breathing Flowchart: Creative diagram showing inspiration, expiration, and gas exchange. • Blood Circulation Posters: Illustrate systemic and pulmonary circulation. • Heart Model: 3D model showing chambers, valves, and direction of blood flow. • Oxygen Transport Infographic: Diagrammatic representation of hemoglobin and gas transport. 	<ul style="list-style-type: none"> • Use animations or videos to show breathing movements and gas exchange. • Provide enlarged diagrams and color-coded charts for blood and heart structures. • Simplify physiological processes stepwise for easier understanding. • Encourage peer discussion and role-play (oxygen and carbon dioxide transport). • Provide tactile 3D models for visually impaired or differently-abled learners. • Use alternative assessment 	<p>Suggested Projects Study changes in breathing rate during rest and exercise. Comparative study of heart rate in different age groups or after physical activity. Survey of blood groups in the school or community. Chart showing oxygen and carbon dioxide transport in blood.</p> <p>Practical Activities Measurement of respiratory rate using a spirometer or simple observation. Study of pulse and heart rate. Observation of blood</p>	<ul style="list-style-type: none"> • Case Study: Why does breathing rate increase during exercise? • Application Question: How does hemoglobin deficiency affect oxygen transport? • Data Interpretation: Analyze heart rate or respiratory volume graphs. • Diagram-Based Reasoning: Identify structures in heart or lungs from labeled diagrams. • Higher Order Thinking: How do lungs and heart work together to maintain homeostasis? 	<ul style="list-style-type: none"> • Describe human respiratory system and explain gas exchange. • Explain transport of oxygen and carbon dioxide in blood. • Identify and explain structure and function of heart, blood vessels, and lymphatic system. • Understand blood groups and their medical importance. • Measure and interpret pulse, heart rate, and respiratory rate.

		heart and blood vessels; Cardiac cycle, cardiac output, ECG; Double circulation; Regulation of cardiac activity; Disorders of circulatory system- Hypertension, Coronary artery disease, Angina pectoris, Heart failure)	<ul style="list-style-type: none"> • Understand cardiac cycle and heartbeat mechanism. • Differentiate between arteries, veins, and capillaries. • Explain systemic and pulmonary circulation and the lymphatic system. • Understand regulation of heart rate and blood pressure. 		methods like oral presentation, poster creation, and digital models.	components using prepared slides. Demonstration of artificial circulation using model systems.		<ul style="list-style-type: none"> • Apply knowledge of circulation and respiration to health and disease prevention. • Demonstrate observation, analytical, and practical skills through models and experiments.
Nov	16	<p>Chapter 16 : Excretory Products and their Elimination (Modes of excretion – Ammonotelism, ureotelism, uricotelism; Human excretory system– structure and function; Urine formation, Osmoregulation; Regulation of kidney function– Renin-angiotensin, Atrial Natriuretic Factor, ADH and Diabetes insipidus; Role of other organs in excretion; Disorders- Uraemia, Renal failure, Renal calculi, Nephritis; Dialysis and artificial kidney)</p> <p>Chapter 17 : Locomotion and</p>	<p>A. Excretory Products and their Elimination</p> <ul style="list-style-type: none"> • Understand excretion and its importance in maintaining homeostasis. • Describe structure and function of human excretory system, including kidneys, ureters, bladder, and urethra. • Explain structure and function of nephron. • Understand formation of urine: filtration, reabsorption, secretion. • Explain regulation of kidney function, osmoregulation, and role of ADH. • Identify abnormal excretory products and their clinical significance. 	<ul style="list-style-type: none"> • Excretory System Models: 3D models of kidneys, ureters, bladder, and nephron. • Urine Formation Flowchart: Illustrate filtration, reabsorption, and secretion processes. • Skeletal System Poster: Axial and appendicular skeleton with labeled bones. • Muscle Contraction Diagrams: Sliding filament theory illustration. • Joint and Ligament Models: Clay or paper models showing different types of joints. 	<ul style="list-style-type: none"> • Use digital models, animations, and videos to show urine formation and muscle contraction. • Provide simplified diagrams and stepwise flowcharts for excretion and movement. • Encourage peer discussion and group demonstrations. • Use tactile 3D models for differently-abled learners. • Provide alternative assessments (oral explanation, 	<p>Suggested Projects Study variation in urine output with water intake. Measure pulse rate before and after exercise to understand muscular and skeletal coordination. Comparative study of human bones and joints using charts or models. Investigate role of ADH in kidney function (conceptual/project-based).</p> <p>Practical Activities Observation of prepared slides of</p>	<ul style="list-style-type: none"> • Case Study: Why do kidney diseases affect water and salt balance? • Application Question: How does muscular coordination enable movement? • Data Interpretation: Analyze graphs of urine volume, muscle strength, or pulse rate. • Diagram-Based Reasoning: Identify nephron parts, bones, or muscles in labeled diagrams. • Higher Order Thinking: How do bones and muscles work together to maintain posture and enable movement? 	<ul style="list-style-type: none"> • Explain human excretory system and urine formation process clearly. • Understand osmoregulation and regulation of kidney function. • Identify structure and functions of bones, joints, and muscles. • Explain mechanism of muscle contraction and coordination of movement.

		<p>Movement (Types of movement – ciliary, flagellar, muscular; Skeletal muscle – contractile proteins and muscle contraction; Skeletal system and its functions (To be dealt with the relevant practical of Practical syllabus); Joints; Disorders of muscular and skeletal system- Myasthenia gravis, Tetany, Muscular dystrophy, Arthritis, Osteoporosis, Gout.)</p>	<p>B. Locomotion and Movement</p> <ul style="list-style-type: none"> • Understand types of movement in animals: ciliary, muscular, and skeletal. • Describe human skeletal system: axial and appendicular skeleton. • Explain structure and function of bones and joints. • Describe muscular system and mechanism of muscle contraction (sliding filament theory). • Understand coordination between bones and muscles for movement. • Recognize role of ligaments, tendons, and cartilage in locomotion. 		<p>chart-making, or digital models).</p>	<p>nephron and kidney sections. Identify different types of joints using bone models. Demonstration of muscle contraction using simple models or experiments. Chart preparation for skeletal system and muscle pairs.</p>	<ul style="list-style-type: none"> • Apply knowledge to health, posture, and locomotion in humans. • Demonstrate observation, analytical, and practical skills through models and experiments. • Work collaboratively on projects, charts, and models. 	
Dec	24	<p>Chapter 18 : Neural Control and Coordination (Neuron and nerves; Nervous system in humans– central nervous system, peripheral nervous system and visceral nervous system; Generation and conduction of nerve impulse; Reflex action; Sensory perception; Sense organs; Elementary structure and function of eye and ear.)</p>	<p>A. Neural Control and Coordination</p> <ul style="list-style-type: none"> • Understand structure and function of the human nervous system: CNS, PNS, and autonomic nervous system. • Describe structure and function of neuron, types of neurons, and nerve impulse transmission. • Explain reflex action and reflex arc. • Understand synapse structure and function. • Describe sensory and motor pathways and 	<ul style="list-style-type: none"> • Neuron and Synapse Models: 3D models showing structure of neuron and synaptic transmission. • Reflex Arc Flowchart: Illustrate pathway of reflex action. • Brain Diagram Poster: Label cerebrum, cerebellum, medulla, and spinal cord with functions. 	<ul style="list-style-type: none"> • Use digital animations/videos for nerve impulse, reflex actions, and hormone signaling. • Provide simplified diagrams and flowcharts for complex neural and hormonal pathways. • Encourage peer learning and group discussion 	<p>Suggested Projects Study reaction time and reflex responses in humans. Survey of common hormonal disorders and their effects. Comparative study of neuron types using diagrams or slides.</p>	<ul style="list-style-type: none"> • Case Study: How does damage to the spinal cord affect reflexes? • Application Question: How do insulin and glucagon regulate blood sugar levels? • Data Interpretation: Analyze reflex reaction times or hormone level charts. • Diagram-Based Reasoning: Identify 	<ul style="list-style-type: none"> • Explain structure and function of neuron, brain, spinal cord, and nervous system divisions. • Describe reflex arc and transmission of nerve impulses. • Identify major endocrine glands and explain

		<p>Chapter 19 : Chemical Coordination and Integration (Endocrine glands and hormones; Human endocrine system Hypothalamus, Pituitary, Pineal, Thyroid, Parathyroid, Adrenal, Pancreas, Gonads; Mechanism of hormone action (Elementary Idea); Role of hormones as messengers and regulators, Hypo-and hyperactivity and related disorders (Common disorders e.g. Dwarfism, Acromegaly, Cretinism, goiter, exophthalmic goiter, diabetes, Addison's disease)</p>	<p>coordination in response to stimuli.</p> <ul style="list-style-type: none"> • Understand role of brain regions (cerebrum, cerebellum, medulla) and spinal cord in control and coordination. <p>B. Chemical Coordination and Integration</p> <ul style="list-style-type: none"> • Explain endocrine system and differences between endocrine and exocrine glands. • Describe major endocrine glands: pituitary, thyroid, parathyroid, adrenal, pancreas, gonads, pineal. • Understand structure and functions of hormones secreted by different glands. • Explain feedback mechanism in hormonal regulation. • Understand hormonal regulation of growth, metabolism, reproduction, and stress response. • Describe disorders caused by hormone imbalance. 	<ul style="list-style-type: none"> • Endocrine Glands Models: Clay or chart models showing location and hormones secreted. • Hormone Function Infographics: Creative charts showing feedback loops and physiological effects. 	<p>on brain function and hormonal regulation.</p> <ul style="list-style-type: none"> • Use tactile 3D models for visually impaired or differently-abled learners. • Provide alternative assessments (oral explanation, model-making, chart presentation, digital poster). 	<p>Prepare charts showing endocrine gland locations and functions.</p> <p>Practical Activities</p> <p>Observation of prepared slides of neuron and synapse. Demonstration of reflex action (knee jerk, blinking reflex). Prepare comparative tables of endocrine glands, hormones, and target organs. Role-play for hormone feedback regulation.</p>	<p>brain regions, neuron parts, or endocrine glands.</p> <ul style="list-style-type: none"> • Higher Order Thinking: How do nervous and endocrine systems integrate to maintain homeostasis? 	<p>hormonal regulation.</p> <ul style="list-style-type: none"> • Understand feedback mechanisms and hormonal integration in body functions. • Apply knowledge of neural and chemical coordination in daily life and health. • Demonstrate observation, analytical, and diagrammatic skills through experiments and models. • Work collaboratively on projects, charts, and models.
Jan	14	Revision Of Unit Cell, Plant Physiology						
Feb	22	Revision Of Unit Animal Physiology, Taxonomy, Morphology						

SUBJECT: Informatics Practices (065)

Textbook: 1. Informatics Practices with Python - XI

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
June	16	Unit 3: Database concepts and the Structured Query Language <ul style="list-style-type: none"> Database Concepts: Introduction to database concepts and its need, Database Management System. Relational data model: Concept of domain, tuple, relation, candidate key, primary key, alternate key Advantages of using Structured Query Language, Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL, creating a database using MySQL, Data Types 	After completing MySQL training, students should be able to: <ul style="list-style-type: none"> Develop small database driven applications. Analyse real-world problems and design suitable database solutions. Optimize queries for better performance. Manage databases in real-world environments. 	Prepare a project report on how students' data is maintained in school.	Make a project by designing a MySQL database to manage information about traditional and modern Indian artworks. The project combines database concepts with creativity by digitally organizing paintings, artists, exhibitions, and art styles.	<ul style="list-style-type: none"> Identify concepts of writing query Assignment based on various types of queries 	<ul style="list-style-type: none"> LOA Viva Class Test Practical file and projects 	Students will understand databases and how to write queries. Students will understand how the database works does, how data gets saved and retrieved.
July	26	Unit 3: Database concepts and the Structured Query Language (Cntd.) <ul style="list-style-type: none"> Data Definition: CREATE DATABASE, CREATE TABLE, DROP, ALTER Data Query: SELECT, FROM, WHERE with relational operators, BETWEEN, logical 	<ul style="list-style-type: none"> Understand database fundamental Design database Writing SQL queries Integrate MySQL with Application 	-	Practical to be done using MySQL commands.	Practical copy to be prepared by the students with 5 tables and multiple queries.	<ul style="list-style-type: none"> LOA Viva Class Test Practical file and projects 	Students will understand databases and how to write query. Students will understand how the database works does, how data gets saved and retrieved.

		operators, IS NULL, IS NOT NULL •Data Manipulation: INSERT, DELETE, UPDATE						
Aug	24	UNIT 2: Introduction to Python:- • Basics of Python programming, execution modes: - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expression evaluation. comments, input and output statements, data type conversion, debugging. • Control Statements: if-else, if-elif-else, while loop, for loop • Lists: list operations-creating, initializing, traversing and manipulating lists, list methods and built-in functions - len(), list(), append(), insert(), count(), index(),remove(), pop(), reverse(), sort(), min(), max(), sum()	<ul style="list-style-type: none"> • Understand concept of programming • Decision making style • Understand data structure • 	Make a maze puzzle which is an example of conditional and iterative statement. One ball should be placed at the center of the maze and using correct path it should reach to the exit point of the maze.	-	Practical copy to be prepared by the students with at least 15 python programs.	<ul style="list-style-type: none"> • LOA • Viva • Class Test • Practical file and Projects 	<p>Students are able to explain about</p> <ul style="list-style-type: none"> • Basics of python • Work with data type and variables • Use operators and expressions • Loop and conditional statements •
Sep	23	Revision						
Oct	22	UNIT 1: Introduction to Computer System: • Introduction to Computing, evolution of computer devices, components of a computer system and their interconnection, input/output devices • Computer Memory: Units of memory, types of memory primary and secondary, data	<ul style="list-style-type: none"> • Understand basic computer concepts • Identify functional units of computer • Understand memory and storage unit Types of software	Make a project using waste computer parts.	Paste diagram or real part of computer on a chart paper. Explain the feature or importance of that part.	-	<ul style="list-style-type: none"> • LOA • Viva • Class Test • Projects 	<p>Students are able to explain about</p> <ul style="list-style-type: none"> • Structure of a computer system. • Functional units. • Describe types of memory. • Working of a computer.

		deletion, its recovery and related security concerns. •Software: purpose and types – system and application software, generic and specific purpose software						
Nov	16	UNIT 2: Introduction to Python (Cntd.) • Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods • Built-in functions – dict(), len(), keys(), values(), items(), update(), del, clear()	<ul style="list-style-type: none"> • Understand concept of storing different data together • Write and built used defined functions 	-	-	Practical copy to be prepared by the students with at least 15 python programs.	<ul style="list-style-type: none"> • LOA • Viva • Class Test • Practical file and Projects 	<p>Students are able to explain about</p> <ul style="list-style-type: none"> • Data storage and dictionary • Built in functions
Dec	24	Unit 4: Introduction to the Emerging Trends • Artificial Intelligence, Machine Learning, Natural Language Processing • Immersive experience (AR, VR), Robotics, Big data and its characteristics • Internet of Things (IoT), Sensors, Smart cities • Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.	Students will understand nessssw technologies. How does the robots work and built.	Make a poster on “Uses of Internet and AI in our daily life”.	Make a robot and label the body parts with where AI sensors can be used.	-	<ul style="list-style-type: none"> • LOA • Viva • Class Test • Projects 	<p>Students are able to explain about</p> <ul style="list-style-type: none"> • Latest technologies • Understand machine learning • Data science • Awareness about cyber security
Jan	14	Revision						
Feb	22	Revision						

SUBJECT : ECONOMICS

Text Book : 1, NCERT

Reference Books: 1. Statistics for Economics by T.R. Jain & V.K. Ohri 2. Introductory Microeconomics by T.R. Jain & V.K. Ohri Global Publication)

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching/ Subject Integration	Project / Practical	Competency Based Activity Learning	Learning Outcomes
June	16	<p>PART A Statistics for Economics</p> <p>Unit 1: Introduction What is Economics? Meaning, scope, functions and importance of statistics in Economics</p> <p>Part B: Introductory Microeconomics</p> <p>Unit 4: Introduction Meaning of microeconomics and macroeconomics; positive and normative economics What is an economy? Central problems of an economy: what, how and for whom to produce; concepts of production possibility frontier and opportunity cost,</p>	<p>1.Acquisition of knowledge To enable students: to understand the basic concepts and principles of microeconomics and macroeconomics,</p> <p>2.Development of understanding: to distinguish between microeconomics and macroeconomics,</p> <p>3.Development of skills to identify the scope and limitations of microeconomics and macroeconomics, to appreciate the relevance and applications of microeconomics</p>	<p>Students can create infographics on topics such as the production possibility frontier, opportunity cost, or the central problems of an economy, They can use images and graphics to make these concepts more accessible and engaging, Artistic representation of economic concepts: Students can create artwork that represents economic concepts, For example, they can create a painting that represents the idea of opportunity cost or a sculpture that represents the production possibility frontier, This can be a creative way to engage students and help them understand the concepts better,</p>	Integration with Mathematics	Draw a diagram and graphical presentation of PPC	Q & A LOA	<p>Students will be able to explain what economics is and how it relates to the study of human behavior, Students will be able to describe the different branches and fields of economics, Students will be able to analyze how statistics is used to collect, analyze, and interpret economic data Students will be able to evaluate the role of statistics in informing economic policies and decision-making, Students will be able demonstrate an understanding of the importance of statistical methods in economics research and analysis,</p> <p>Students will be able to define and differentiate between microeconomics and macroeconomics, Students will be able to identify the key principles and concepts of microeconomics, such as supply and demand, market equilibrium, consumer behavior, and firm behavior, Students will be able to explain the relationship between microeconomics and macroeconomics and how they relate to each other in the overall economy,</p> <p>Students will be able to analyze</p>

			cs and macroeconomics in real-world situations.					and evaluate economic issues and policies from both a microeconomic and macroeconomic perspective,
July	26	<p>Unit 2: Collection, Organization and Presentation of data Collection of data - sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation, Organisation of Data: Meaning and types of variables; Frequency Distribution, 3 Presentation of Data: Tabular Presentation and Diagrammatic Presentation of Data: (i) Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and Ogive) and (iii) Arithmetic line graphs (time series</p>	<p>1.Acquisition of knowledge To enable students: to understand the importance of data: Students will understand the importance of data in decision-making, problem-solving, and planning, 2.Development of understanding: to identify and select appropriate methods for collecting data, such as surveys, experiments, and observations, to organise data using appropriate techniques such as tables, graphs, and charts, 3.Development of skills to analyse data using appropriate statistical</p>	<p>Artistic data collection: students to collect data in an artistic way, such as through sketches or paintings, For example, they can observe their surroundings and draw the different types of vehicles they see on the road, This activity will help them understand the concept of primary data collection and sampling, Data mapping: students to create a map of their school or neighborhood and plot the different types of businesses and shops they see, This activity will help them understand the concept of secondary data collection and the importance of data organization, Collaborative Graphing: You can divide your class into groups and ask them to create different types of graphs, such as bar diagrams, pie diagrams, or frequency histograms, Once each group has created their graph, they can collaborate to compare and contrast their results, This activity will help them understand the concept of data presentation,</p>	Collection of data - sources of data - primary and secondary to be integrated with data handling .	Make a project on NSSO and Census	Q & A LOA	<p>Ability to collect and organise data: Students will be able to collect data using appropriate methods and organise it using appropriate techniques, Ability to analyse data: Students will be able to analyse data using appropriate statistical methods, and interpret the results, Ability to present data effectively: Students will be able to present data in a clear and effective way, using appropriate visual aids, Ability to communicate results: Students will be able to effectively communicate the results of their data analysis, both verbally and in writing, Ability to use data for decision-making: Students will be able to use data to make informed decisions and solve problems,</p>

		graph),	methods, such as measures of central tendency and variation, to present data in a clear and effective way, using appropriate visual aids such as graphs, charts, and tables, to effectively communicate the results of their data analysis, both verbally and in writing,					
Aug	24	<p>Unit 5: Consumer's Equilibrium and Demand</p> <p>Consumer's equilibrium - meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis, Indifference curve analysis of consumer's equilibrium-the consumer's budget (budget set and budget line), preferences of the consumer (indifference</p>	<p>1.Acquisition of knowledge:</p> <p>To enable students: to understand the concept of consumer's equilibrium: To define and explain the concept of consumer's equilibrium, which refers to the point where a consumer maximizes their utility (satisfaction) subject to their budget constraint,</p> <p>2.Development of understanding:</p>	<p>Art History Project: Students can create an art history project by studying different art movements, styles, and artists from different time periods, They can create a timeline or a visual representation of their research using various art forms, such as painting, sculpture, photography, or digital media,</p> <p>Art and Math Project: Students can create an art and math project by exploring the relationship between art and math, They can use mathematical principles, such as symmetry, patterns, and geometry, to create their own artwork or analyze the artwork of others,</p>	<p>: Consumer's Equilibrium and Demand</p> <p>Consumer's equilibrium - meaning of utility, marginal utility, law of diminishing marginal utility, to be integrated with marketing and Business Studies</p>	<p>Make a project on consumer,s utility and marginal utility with two commodities</p>	<p>Q & A LOA</p>	<p>Students will be able to analyze the behavior of consumers when faced with changes in prices and incomes, Students will be able to analyze market demand, which is the total quantity of a good or service that all consumers in a market are willing and able to buy at a given price, they will be able to explain the factors that determine market demand and how changes in these factors affect market equilibrium</p> <p>Students will be able to apply the concepts of consumer's equilibrium and demand to real-world situations, they will be able to analyze the effects of government policies, such as taxes or subsidies, on consumer behavior and market outcomes</p>

		curve, indifference map)	to understand the law of demand: Students will understand the law of demand, which states that the quantity demanded of a good or service will decrease as its price increases, 3.Development of skills to make them understand how changes in these variables affect the quantity demanded of a good or service, and how this relates to the consumer's budget constraint,					
Sept	23	conditions of consumer's equilibrium, Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of	1.Acquisition of knowledge To enable students: to understand the concept of consumer's equilibrium and the conditions for its attainment, to understand the concept of demand and market demand, 2.Development of understanding:		conditions of consumer's equilibrium, Demand, market demand, determinants of demand, demand schedule,to be integrated with demand pattern of our market		Q & A LOA	Students will be able explain the concept of consumer's equilibrium and the conditions required for it to be achieved, Students will be able analyze the determinants of demand and their impact on the demand for a product, Develop a demand schedule ,demand curve and interpret their relationship, Students will be able to differentiate between movements along and shifts in the demand curve, and explain the factors that cause each of them, Students will be able to interpret the slope of the demand

		<p>price elasticity of demand – percentage-change method and total expenditure method,</p>	<p>to identify and explain the determinants of demand and how they affect the demand for a good or service, to understand the demand schedule and demand curve and their relationship, to understand the slope of the demand curve and its interpretation, 3.Development of skills</p> <p>to distinguish between movements along and shifts in the demand curve and the factors that cause each of them, to understand the concept of price elasticity of demand and its importance, to identify the factors that affect the price elasticity of demand, to know the methods used to measure price elasticity of demand, including the</p>					<p>curve and its significance, Understand the concept of price elasticity of demand and its importance in decision-making, Students will be able to identify the factors that affect price elasticity of demand and how they influence demand, Students will be able to measure price elasticity of demand using various methods, including the percentage-change method and the total expenditure method, Students will be able to apply the concepts of demand and price elasticity of demand to real-world scenarios and decision-making processes,</p>
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			percentage-change method and the total expenditure method,					
Oct	22	<p>Unit 3: Statistical Tools and Interpretation Measures of Central Tendency- Arithmetic mean, median and mode Correlation – meaning and properties, scatter diagram;</p>	<p>1.Acquisition of knowledge To enable students: to understand the concept of central tendency and its measures such as arithmetic mean, median and mode, Learn how to calculate measures of central tendency and interpret their results, 2.Development of understanding Understand the properties and significance of correlation analysis, Learn how to create and interpret scatter diagrams</p>	<p>Use movement and music to illustrate how measures of central tendency and correlation work, student can create a dance or theatrical performance that shows how the mean, median, and mode can be used to analyze data, For example, you can create a dance performance that uses different movements to represent the different measures of central tendency,</p>	<p>Statistical Tools and Interpretation Measures of Central Tendency- Arithmetic mean, median and mode Correlation – meaning and properties, scatter diagram to be integrated with Math</p>	<p>Make a project on a chart paper regarding scattered diagram</p>	<p>Q & A LOA</p>	<p>Students will be able to define central tendency and explain the differences between arithmetic mean, median and mode, Proficiency in calculating measures of central tendency and interpreting their results, Knowledge of the properties of correlation analysis and ability to interpret the strength and direction of correlations, Students will be able to create scatter diagrams and interpret their meaning in relation to correlation analysis,</p>
Nov	16	<p>Measures of correlation - Karl Pearson's method (two variables ungrouped data) Spearman's rank correlation, Introduction to Index Numbers - meaning, types -</p>	<p>To enable students: to understand the concept of correlation and its importance in statistics, to learn about Karl Pearson's method for measuring</p>		<p>Introduction to Index Numbers - meaning, types - wholesale price index, consumer price index and index of industrial production, uses of index</p>	<p>Make a project on Karl's Pearson's method</p>	<p>Q & A LOA</p>	<p>Students will be able to understand the meaning and importance of correlation in statistical analysis, Students will be able to apply Karl Pearson's method for calculating the correlation coefficient between two variables with ungrouped data, Students will be able to</p>

		wholesale price index, consumer price index and index of industrial production, uses of index numbers; Inflation and index numbers	correlation between two variables with ungrouped data, 3.Development of skills to understand the concept of Spearman's rank correlation and its applications to introduce the concept of index numbers and its importance in economics to learn about different types of index numbers, including wholesale price index, consumer price index, and index of industrial production to understand the uses of index numbers in measuring inflation and economic growth		numbers; Inflation and index numbers to be integrated with Business Studies.			understand the concept of Spearman's rank correlation and be able to apply it to real-world data, Understand the concept of index numbers and its importance in measuring economic trends, Students will be able to differentiate between different types of index numbers and their respective uses, Understand how index numbers can be used to measure inflation and economic growth and be able to interpret index number data to draw conclusions about economic trends,
Dec	24	Unit 6: Producer Behaviour and Supply Forms of Market and Price Determination under Perfect Competition with simple applications, Perfect competition - Features; Determination of market equilibrium and effects of	To enable students: 1.Acquisition of knowledge to understand the production function and the factors of production that determine a firm's output, 2.Development of understanding: to define and explain the concepts of	To illustrate the concept of market equilibrium and the effects of shifts in demand and supply, the artist could create a series of before-and-after images that show how changes in consumer demand or production costs can impact the market price and quantity of a good or service, For example, one image could show a crowded farmers' market with high prices due to a shortage of fresh produce, while another image could show the same market with	Forms of Market and Price Determination under Perfect Competition with simple applications, Perfect competition - Features; Determination of market equilibrium to be integrated with the concepts of	Make a project on price determination under perfect competition	Q & A LOA	Learning Outcomes: By the end of the topic, students will be able to: Students will be able to analyze the production function and its different components, Students will be able to differentiate between short-run and long-run production functions, Students will be able to calculate total product, average product, and marginal product, Students will be able to identify the returns to a factor cost and its impact on production, Students will be able to describe

		<p>shifts in demand and supply, Simple Applications of Demand and Supply: Price ceiling, price floor, supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - percentage-change method,</p>	<p>total product, average product, and marginal product, to analyze the relationship between total product, average product, and marginal product, and how it varies over the short and long run, 3.Development of skills to define and explain the concepts of total cost, total fixed cost, total variable cost, average cost, average fixed cost, average variable cost, and marginal cost, to analyze the relationship between these cost concepts, and how they vary over the short and long run, to understand the concept of revenue, and distinguish between total, average, and marginal revenue, to analyze the</p>	<p>lower prices and more abundant produce after a successful harvest,</p>	<p>marketing under Business Studies.</p>			<p>the short-run costs and their components, Students will be able to calculate average cost, average fixed cost, average variable cost, and marginal cost, Students will be able to understand the concept of revenue and its different types, Students will be able to identify the producer's equilibrium and its conditions in terms of marginal revenue and marginal cost, Students will be able to describe the concept of supply and market supply, Identify the determinants of supply and their impact on the supply curve, Students will be able to analyse the supply schedule, supply curve, and its slope, Students will be able to differentiate between movements along and shifts in the supply curve,, Students will be able to measure the price elasticity of supply using the percentage-change method,</p>
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			relationship between these revenue concepts, and how they vary over the short and long run, to define and explain the concept of producer equilibrium, and identify the conditions necessary for it to occur, to understand the concept of supply, and distinguish between individual and market supply, to identify and explain the determinants of supply, and how they affect the supply curve, to define and explain the concepts of supply schedule, supply curve, and its slope,					
Jan	14	Unit 7: Forms of Market and Price Determination under Perfect Competition with simple applications, Perfect competition -	1.Acquisition of knowledge: To enable students: to understand the features of perfect competition as a market	Forms of Market and Price Determination under Perfect Competition with simple applications, Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply, Simple Applications		Market Equilibrium Analysis: Conduct a study on the determination of market equilibrium under perfect	Q & A LOA	Students will be able to identify the characteristics of perfect competition and explain why it is considered an ideal market structure, Students will be able to use the demand and supply curves to determine the market equilibrium price and quantity under perfect

		<p>Features; Determination of market equilibrium and effects of shifts in demand and supply, Simple Applications of Demand and Supply: Price ceiling, price floor,</p>	<p>structure, to understand how market equilibrium is determined under perfect competition, 2.Development of understanding:</p> <p>to understand the effects of shifts in demand and supply on the market equilibrium, 3.Development of skills</p> <p>to understand the concept of price ceiling and price floor and their effects on market outcomes,</p>	<p>of Demand and Supply: Price ceiling, price floor,</p>		<p>competition using real-life examples, You can select any product, for example, mobile phones, and collect data on its demand and supply, and analyze the equilibrium price and quantity in the market, Effects of Shifts in Demand and Supply: Investigate the effects of shifts in demand and supply on the equilibrium price and quantity in a perfectly competitive market, You can choose any product and analyze the market behaviour in response to changes in consumer income, population, technology, and other factors,</p>		<p>competition, Students will be able to analyse the effects of changes in demand and supply on the market equilibrium price and quantity under perfect competition, Students will be able to explain the concept of price ceiling and price floor and their effects on market outcomes, Students will be able to apply the concepts of price ceiling and price floor to simple market scenarios,</p>
Feb	22	REVISION FOR TERM-II						

SUBJECT : ACCOUNTANCY

Text Book : 1. N.C.E.R.T

2. DOUBLE ENTRY BOOK KEEPING

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23							
May	07							
June	16	<p>Introduction to Accounting</p> <ul style="list-style-type: none"> Accounting: concept; objectives, advantages and limitations. Types of accounting information Users of accounting information Qualitative characteristics of accounting information Role of accounting in business. <p>Basic Accounting Terms</p> <ul style="list-style-type: none"> Transactions; Capital; Drawings; Assets (Types of assets); Liabilities (Types of liabilities); Expenditure (Types of expenditures); Income; Profit; gain; loss; purchase; sale; debtors; creditors; discount (Types); stock (Types) and other terms. <p>Theory base of accounting</p> <ul style="list-style-type: none"> Meaning and nature of accounting principles Features of accounting principles Importance of accounting 	<p>1. Acquisition of knowledge:</p> <p>To enable them to know- Need for Accounting Meaning of Accounting Characteristics of Accounting Objectives of Accounting Functions of Accounting Distinction between Book-keeping, Accounting and Accountancy Types or Branches of Accounting Accounting as Source of Information Users of Accounting information Advantages of Accounting Limitations of Accounting Qualitative Characteristics of Accounting Information Business Transaction and its Main Features Meaning of Accounting</p>	<p>Integrated with Painting and Sketch Poster of users of accounting information, types of Assets & Liabilities & Principles of Accounting.</p>	<p>Some relevant topics in the chapter to be integrate with the other subjects. Capital, resources of production etc are integrates with Economics.</p>	<p>Project on accounting principle</p>	<p>Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc</p>	<p>The students will be able to know and learn: the meaning, objectives, advantages and disadvantages of accounting. The students will be able to know and learn: the various terms used in accounting. The students will be able to know and learn: that sales/purchase including both cash & credit. The students will be able to know and learn: the meaning and objectives of accounting standard.</p>

		<p>principles</p> <ul style="list-style-type: none"> • Fundamental accounting assumptions: Business entity; Money measurement; Going concern; Accounting period; cost concept; Dual aspect; Revenue recognition; Matching; Full disclosure; consistency; conservatism; Materiality; objectivity etc Basis of accounting: • Cash and accrual Accounting standards: Concept; Objectives ; International Financial Reporting System (IFRS) and Indian Accounting Standards (IAS) 	<p>Principles Nature or Characteristics of Accounting Principles</p> <p>2. Need of Accounting Principles</p> <p>Kinds of Accounting Principles</p> <p>Accounting Concepts or Assumptions: Fundamental Accounting Assumptions as per AS-1</p>					<p>The students will be able to know and learn: The meaning of accounting principles and the situations in which a principle is applied.</p> <p>The students will be able to know and learn: the bases of recording accounting transaction</p>
July	26	<p>Accounting Equation</p> <ul style="list-style-type: none"> • Meaning • Rules for accounting equation • Process of preparing accounting equation • Numerical problems • Meaning of an account • Meaning of debit and credit • Rules of debit and credit: • Modern approach and traditional approach <p>Accounting procedures</p> <ul style="list-style-type: none"> • Source documents • Meaning of voucher Types of vouchers • Preparation of vouchers (Numerical) <p>Journal</p> <ul style="list-style-type: none"> • Meaning of Journal Characteristics and advantages Limitations • Passing of journal Entries (Numerical) <p>Ledger</p> <ul style="list-style-type: none"> • Meaning of ledger Features Importance 	<p>1. Acquisition of knowledge: To enable them to know-</p> <ul style="list-style-type: none"> • Meaning of Accounting Equation • Effect of Transactions on Accounting Equation Meaning of Debit and Credit <p>2. Development of understanding: To enable students to understand: -</p> <ul style="list-style-type: none"> • Rules of Debit and Credit Names of Books of Original Entry • Meaning and Format of Journal • Rules of Journalising • Recording of Entries in Journal <p>3. Development of skills</p> <ul style="list-style-type: none"> • To enable the students to develop the skills • Preparation of Vouchers. • Pass the journal entries of a transaction. 	<p>Integrated with Painting and Sketch Poster of source document prepared by the business, Golden rules & modern rules of journal of journal.</p>	<p>Work sheet based on important questions of the chapter</p>	<p>Project on a Public Ltd. Regarding their source documents.</p>	<p>Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc</p>	<p>The students will be able to know and learn: the concept of accounting equation and appreciate that every transaction effects either both the side of equation or a positive effect of one item and negative effect on another item.</p> <p>The students will be able to know and learn: the effect of transaction on the concerned assets, liabilities, capital and expenses.</p> <p>The students will be able to know and learn: the basis of source documents, accounting vouchers are prepared for recording the transactions. the understanding of recording of transaction in journal the format of ledger and posting of transaction to ledger from journal</p>

		<ul style="list-style-type: none"> Preparation of ledger accounts (Numerical) Balancing of ledger 	<ul style="list-style-type: none"> Post them into ledger. 					
Aug	24	<p>Trial Balance</p> <ul style="list-style-type: none"> Meaning of Trial Balance. Objectives Preparation of T.B. (Numerical) <p>Cash Book</p> <p>Meaning of cash book. Classification Objectives Features</p> <ul style="list-style-type: none"> Types (Single column, double column) Numerical problems of cash book Petty Cash book Numerical problems of petty cash book <p>Day books</p> <ul style="list-style-type: none"> Purchase daybook: Meaning and preparation of purchase book Sales day book : Meaning and preparation of sales book Return Inward book: Meaning and preparation. Return outward book: Meaning and preparation. Journal proper: Meaning and preparation. 	<p>1. Acquisition of knowledge:</p> <ul style="list-style-type: none"> To enable them to know- Special Purpose Subsidiary Books and their Advantages Meaning of Cash Book Distinction between Cash Account and Cash Book Types of Cash Book: <p>2. Development of understanding:</p> <p>To enable students to understand: -</p> <ul style="list-style-type: none"> Single Column Cash Book Double Column Cash Book Petty Cash Book <p>3. Development of skills</p> <p>To enable the students to develop the skills Recording Entries in Cash Book Format and Preparation of Special Purpose</p> <ul style="list-style-type: none"> Purchase Book Sales Book Purchase Return Book Sales Return Book Journal Proper 	<p>Integrated with</p> <p>Painting and Sketch Poster of format of single and double column cash book,</p>	<p>Some relevant topics in the chapter to be integrate with the other subjects.</p> <p>Enumeration of data in a cash book integrates with Mathematics.</p>	<p>Project on trial balance prepared by any Public Ltd.</p>	<p>Conceptual learning</p> <ul style="list-style-type: none"> *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc 	<p>The students will be able to know and learn the need and objectives of preparing trial balance and develop skill of preparing trial balance.</p> <p>The students will be able to know and learn the format of different types of cash book and methods of recording cash transactions in cash book.</p> <p>The students will be able to know and learn the methods of recording transactions other than cash transaction as per their nature</p>
Sept	23	<p>Bank Reconciliation Statement</p> <p>Meaning Objectives Methods of preparing BRS Preparation of BRS (Numerical)</p> <p>Provision and Reserves</p> <p>Concept of provision Importance of provision Concept of reserve Types of reserves: Revenue reserve, capital reserve and secret reserve Difference of provision and reserve</p>	<p>1.Acquisition of knowledge:</p> <p>To enable them to know- Meaning of Bank Reconciliations statement</p> <p>2.Development of understanding:</p> <p>To enable students to understand: - Causes for Differences in the Cash Book and Passbook Balance Need for and Importance of Bank Reconciliation Statement</p> <p>3.Development of skills</p>	<p>Integrated with</p> <p>Painting and Sketch Poster of different types of reserve maintain by the company.</p>	<p>Some relevant topics in the chapter to be integrate with the other subjects.</p>	<p>Project on provision and reserve maintain by any Public Ltd. & Collect bank statement and copy of cash book of any company and prepare BRS</p>	<p>Conceptual learning</p> <ul style="list-style-type: none"> *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and 	<p>The students will be able to know and learn The bank balance as indicated by cash book is different from the bank balance as soon by the pass book and to reconcile both the balance .</p> <p>The students will be able to know and learn The preparing bank</p>

			To enable the students to develop the skills Preparing Bank Reconciliation Statement			statements	Reasoning *Picture based *Source based learning	reconciliation statement. The students will be able to know and learn the need for creating reserve and also making provisions
Oct	22	Depreciation <ul style="list-style-type: none"> • Meaning • Causes of depreciation • Objectives of depreciation • Depreciation, amortization and depletion concept • Methods of depreciation: Straight line and Reducing balance • Provision for depreciation account • Assets disposal account. • Numerical problems 	1.Acquisition of knowledge: To enable them to know- Meaning of Depreciation Causes of Depreciation Need for Providing Depreciation 2. Development of understanding: *To enable students to understand: - Factors Determining the amount of Depreciation. Methods of Providing Depreciation: • Distinction between Straight Line Method and Written Down Value Method 3. Development of skills To enable the students to develop the skills Straight Line Method: Meaning, Merits, Demerits and Suitability Written Down Value Method: Meaning, Merits, Demerits and Suitability Methods of Recording Depreciation: By Charging to Asset Account by Creating Provision for Depreciation Account Asset Disposal Account.	Integrated with Painting and Sketch Poster of different types of methods used to maintain the depreciation by the company & different methods used to calculate the depreciation.	Some relevant topics in the chapter to be integrate with the other subjects. Calculation on of percentage of depreciation is integrated with Mathematics.	Collect information about the methods of depreciation used by the limited co. from financial statement of company	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc	The students will be able to know and learn the necessity of providing depreciation and develop the skill of using diff. Methods for computing depreciation. The students will be able to know and learn the necessity of providing depreciation. The students will be able to know and learn the accounting treatment of depreciation directly to the concerned assets. The students will be able to know and learn the method of assets disposal.
Nov	16	Financial statements of sole proprietorship <ul style="list-style-type: none"> • Meaning • Objectives • Preparation of Trading Account 	1.Acquisition of knowledge: To enable them to know- Meaning of financial statement	Integrated with Painting and Sketch Poster of different types of income and expenditure recorded	Some relevant topics in the chapter to be integrate with the other subjects. Calculation of	Project on a Public Ltd. Regarding their final account	Conceptual learning *Thought provoking. *Critical thinking	The students will be able to know and learn the meaning of financial statements and their purpose. The students will be able to know and learn the

		<ul style="list-style-type: none"> Preparation of Profit and loss account Preparation of Balance sheet Preparation of final account without adjustment Preparation of final account with adjustment Marshalling of assets and liabilities <p>Accounting for incomplete record (Single entry system)</p> <ul style="list-style-type: none"> Meaning Objectives Preparation of statement of Profit and Loss. Preparation of Statement of Affairs. 	<p>Users of of financial statement</p> <p>2.Development of understanding:</p> <p>*To enable students to understand: - Meaning, need & preparation of trading account. Meaning, need & preparation of profit & loss account.</p> <p>Meaning, need & preparation of Balance sheet. Grouping & marshalling of assets & liabilities Distinction between tangible and intangible assets</p> <p>3.Development of skills</p> <p>*To enable the students to develop the skills</p> <p>Preparation of trading, Profit & Loss A/c & Balance sheet.</p>	<p>in trading and profit & loss account, types of assets and liabilities recorded in balance sheet.</p>	<p>percentage of gross profit and net profit ratio is integrate d with Mathema tics.</p>		<ul style="list-style-type: none"> *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based learning *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc 	<p>meaning of direct expenses, direct income indirect expenses/income.</p> <p>The students will be able to know and learn the meaning of gross profit, nate profit, operating profit and develop the skill of preparing trading and profit and loss account.</p> <p>The students will be able to know and learn the need of balance sheet.</p> <p>The students will be able to know and learn the meaning of adjustments and develop the skill of recording the adjustments in financial statements.</p>
Dec	24	<p>Rectification of errors</p> <ul style="list-style-type: none"> Classification of errors Errors do not affect the Trial Balance Passing the journal entries before preparation of T. B and after preparation of T.B. Concept of suspense and preparation of suspense account. 	<p>1.Acquisition of knowledge:</p> <p>To enable them to know- Rectification of errors Types of errors Rectification of one-sided errors Rectification of two-sided errors Meaning &</p> <p>3. Development of understanding:</p>	<p>Integrated with</p> <p>Painting and Sketch Poster of different types of errors.</p>	<p>Work sheet based on important questions of the chapter</p>		<p>Conceptual learning</p> <ul style="list-style-type: none"> *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending 	<p>The students will be able to know and learn that errors may be committed during the process of accounting.</p> <p>The students will be able to know and learn the</p>

		And Revision	*To enable students to understand: utility of suspense account. Rectification of errors through suspense account and disposal of suspense account				*High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc	meaning of diff. Types of errors and their effect on trial balance. Develop the skill of The students will be able to know and learn to identification and location of errors and teir rectification and preparation of suspense account.
Jan	14							
Feb	22							

SUBJECT : BUSINESS STUDIES

Text Book : 1. N.C.E.R.T

2. V.K Publication

Month	W D	Chapter/ Sub-Topics	Learning Objectives	Key Terms and Concept	Art Integration	Inclusive Teaching	Project / Practical	Research Work Blended Learning	Smart Board Activity	Competency Based Activity Learning	Learning Outcomes
April	24										
May	08										
June	14	<p>PART- A Foundation of Business Nature and Purpose of business</p> <ul style="list-style-type: none"> • Modern Concept of business. • Characteristics • Comparison of business, profession and employment • Classification of business activities: • Industry, Commerce, • Trade and auxiliaries to trade • Objectives of Business • Business risk • Nature of business risk • Causes of business risk <p>Forms of Business Organisation</p> <ul style="list-style-type: none"> • Introduction • Sole proprietorship • Features, merits and demerits • Join Hindu family business • Features, merits and demerits • Partnership 	<p>1.Acquisition of knowledge: To enable them to know Concept of business Human activities Characteristics of business, profession & employment Meaning of components of business. Meaning of form of business Organisation. Meaning, features, merits & limitations of sole proprietorship. Meaning, features, merits & limitations of partnership.</p> <p>Development of understanding: *To enable students to understand: Diff. between business, profession &</p>	Business Profession Employment Business Activities Commerce & trade Import & export. Business risk Sole proprietorship Minor as partner. Partnership deed Active partner. Sleeping partner. Dormant partner. Nominal partner. LLP HUF Co-operative Organisation Public co. Private co. Promotion Incorporation MOA AOA	Integrated with Painting and Sketch Poster of different types of partners in a partnership firm.	Some relevant topics in the chapter to be integrate with the other subjects. Industries, commerce, trade, and auxiliaries to trade is integrated with Mathematics.	Project on form of business Organisation	Face to face interaction through digital learning like educational video/ documentary/YouTube link regarding the different types of partners in a partnership firm, form of business Organisation.	Audio visual learning of the different types of partners, partnership deed, form of business Organisation.	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc	<p>Students will be able to know and learn the concept of business, profession, and employment.</p> <p>Students will be able to know and learn between business, profession, and employment.</p> <p>Students will be able to know and learn the economic and social objectives of business.</p> <p>Students will be able to know and learn the role of profit in business.</p> <p>students will be able to know and learn the broad categories of business</p>

	<ul style="list-style-type: none"> • Features, merits and demerits, Types of partners • Types of partnership • Partnership deed: Registration and consequences of non-registration • Co-operative societies • Features, merits and demerits, • Types of Co operatives • Joint Stock Company • Features of Jon Stock Companies • Types of companies <p>Distinguish between private and public companies Choice of form of business Organization</p>	<p>employment. Types of business activities. Meaning & nature of business risk. Causes of business risk.</p> <p>3. Development of skills *To enable the students to develop the skills Diff. Between industries, commerce & trade. Type of partners. Meaning, features, merits & limitations of LLP. Meaning, features, merits & limitations of HUF. Diff. Between sole proprietorship, partnership, HUF LLP & Co.</p>								<p>activities- industry and commerce, students will be able to know and learn the various types of industries. students will be able to know and learn the meaning of commerce, trade and auxiliaries to trade. students will be able to know and learn the meaning of different types of trade and auxiliaries to trade.</p>
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	<p>Private, Public and Global enterprises</p> <ul style="list-style-type: none"> • Introduction • Private and public sector • Forms of public sector • Departmental 	<p>1.Acquisition of knowledge: To enable them to know Meaning, features, merits & limitations of Departmental</p>	<p>Private sector Public sector Departmental undertakings statutory/public corporations. government companies.</p>	<p>Integrated with Painting and Sketch Poster of different form of private,</p>	<p>Some relevant topics in the chapter to be integrate with the other subjects.</p>	<p>Project on form of public, global & private sectors enterprise & causes of</p>	<p>Face to face interaction through digital learning like educational video/ documentary/ YouTube link regarding the different types of public, private & global enterprises, different</p>	<p>Audio visual learning of the different types of public, private & global enterprises, different types</p>	<p>Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning</p>	<p>students will be able to know and learn the Public sector and private sector enterprises. students will</p>

July	26	<p>undertaking:</p> <ul style="list-style-type: none"> • Meaning, Features, merits and demerit • Statutory Corporation: • Meaning, Features, merits and demerits • Government Company: • Meaning, Features, merits and demerits • Global enterprises: Meaning, Features, merits and demerit <p>Business Services</p> <ul style="list-style-type: none"> • Comparison of public sectors • Nature of services <p>Types of services</p> <ul style="list-style-type: none"> • Differences between goods and services • Banking: Types of Banks. • Functions of commercial bank • E- banking: Benefits • Insurance: Fundamental • principles of insurance • Types of insurance • Life insurance: Types • Fire insurance • Marine Insurance: Types • Differences between life, fire 	<p>undertakings. Meaning, features, merits & limitations of statutory/public corporations. Meaning, features, merits & limitations of government companies. Meaning of joint sector. Meaning, features, merits & limitations of MNCs</p> <p>2. Development of understanding:</p> <p>*To enable students to understand: Types of banks. E-Banking principle of insurance Types of insurance</p> <p>3. Development of skills</p> <p>*To enable the students to develop the skills</p> <p>Comparative study of various public enterprises.</p>	<p>joint sector. MNCs PPP Joint venture F- Banking Insurance & assurance Principle of life insurance Marine insurance General insurance Traditional mode of comm. Fax Internet E-Mail</p>	<p>public & global enterprises.</p>	<p>Public, private & global enterprises in India is integrated with Political science.</p>	<p>business risk.</p>	<p>types of insurance.</p>	<p>of insurance.</p>	<p>*Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc</p>	<p>be able to know and learn and explain the features, merits and limitations of different forms of public sector enterprises. students will be able to know and learn Global Enterprises and public private partnership by studying their meaning and features. students will be able to know and learn the meaning and types of business services. students will be able to know and learn the meaning and types of Business. students will be able to know and learn different types of bank account. students will be able to know and learn the</p>
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		<p>and marine. insurance</p> <ul style="list-style-type: none"> • Communication services • Postal services, Telecom services • Warehousing: Meaning, Types, Functions. 								<p>different services provided by banks.</p> <p>students will be able to know and learn</p> <p>Utmost Good Faith, Insurable Interest, Indemnity, Doctrine of Subrogation and Causa Proxima as principles of insurance</p>
Aug 22	<p>Emerging modes of Business</p> <ul style="list-style-type: none"> • Concept of e-business and scope and benefits. <p>Social Responsibilities of Business</p> <ul style="list-style-type: none"> • Concept of social responsibilities • Case of social responsibilities • Responsibilities towards different groups • Role of business in environment • Business ethics concept and elements 	<p>1.Acquisition of knowledge: To enable them to know Online transaction Meaning of e-commerce Scope of e-commerce Benefits of e-commerce</p> <p>2. Development of understanding: *To enable students to understand: Diff. Between traditional and e-business Outsourcing of service or business process outsourcing</p>	<p>Online transaction e-commerce Outsourcing of service business process outsourcing (BPO) knowledge process outsourcing (KPO) B2B Commerce B2C Commerce C2C Commerce social responsibilities Business & environment protection business ethics</p>	<p>Integrated with Painting and Sketch Poster on social responsibilities of business Organisation towards different groups.</p>	<p>Some relevant topics in the chapter to be integrate with the other subjects. Online transactions & benefits of e-commerce is integrate d with C.S.</p>	<p>Project on social responsibilities of business towards different groups.</p>	<p>Face to face interaction through digital learning like educational video/ documentary/ YouTube link regarding the Online transactions & benefits of e-commerce & social responsibilities of business Organisation towards different groups.</p>	<p>Audio visual learning of e-business & benefits of e-commerce & social responsibilities of business Organisation towards different groups.</p>	<p>Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based learning *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping</p>	<p>students will be able to know and learn the scope of e-business, the benefits of e-business.</p> <p>students will be able to know and learn e-business from traditional business. Business Ethics students will be able to know and learn the concept of social responsibility. students will</p>

			(BPO) Types of outsourcing of service Meaning & feature of <u>knowledge</u> process outsourcing (KPO) Meaning of social responsibilities 3.Development of skills *To enable the students to develop the skills Arguments of social responsibilities social responsibilities of business towards various parties Business & environment protection Meaning of business ethics						etc	be able to know and learn the case for social responsibility. students will be able to know and learn the social responsibility towards different interest groups. students will be able to know and learn the role of business in environment protection. students will be able to know and learn the concept of business ethics Describe the elements of business ethics.
	PART- B Sources of business finance <ul style="list-style-type: none"> • Meaning, Features and significance of business finance • Classification of sources of funds • Sources of finance • Retained Earnings: Features, merits and demerits • Trade credit: Features, merits and 	1.Acquisition of knowledge: To enable them to know Nature and significance of business finance, Source of business finance Development of understanding: *To enable students to understand:	MOA AOA PROSPECT U S Name clause. Situation clause Objective clause Liabilities clause Capital clause. Association &	Integrated with Painting and Sketch Poster on different sources of business finance, its merit & demerits.	Some relevant topics in the chapter to be integrate with the other subjects. Important documents of a company is integrated with business	Project on a Public Ltd. Regarding source of finance.	Face to face interaction through digital learning like educational video/documentary/YouTube link regarding the finance collect by a company through different sources of finance.	Audio visual learning of Important documents of a public limited company.	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and	students will be able to know and learn between a private company and a public company. students will be able to know and learn the important documents

Sept	05	<p>demerits</p> <ul style="list-style-type: none"> • Factoring: Features, merits, and demerits • Commercial paper: Features, merits, and demerits <p>Equity shares: Features, merits, and demerits</p> <p>Debentures: Features, merits, and demerits</p>	<p>Meaning, advantages & limitations of equity shares.</p> <p>Meaning, advantages & limitations of preference shares.</p> <p>Meaning, advantages & limitations of debentures</p> <p>Meaning, advantages & limitations of retained earnings.</p> <p>Meaning, advantages & limitations of public deposits</p> <p>Meaning, advantages & limitations of GDRs</p> <p>Meaning, advantages & limitations of ADRs</p> <p>Meaning, advantages & limitations of IDR</p> <p>3.Development of skills</p> <p>*To enable the students to develop the skills</p> <p>Difference between owners' funds & borrowed funds.</p>	<p>subscription clause</p> <p>Issue & allotment of shares.</p> <p>Share certificates.</p> <p>Minimum subscription</p> <p>Calls on shares.</p> <p>Dividend on shares</p> <p>Underwriter</p> <p>Preliminary expenses</p> <p>Promoters</p> <p>Auditors</p> <p>business finance equity shares</p> <p>preference shares</p> <p>Debentures</p> <p>retained earnings.</p> <p>public deposits</p> <p>GDRs ADRs</p> <p>IDRs</p>		law.				<p>Reasoning</p> <ul style="list-style-type: none"> *Picture based learning *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc 	<p>used in the various stages in the formation of a company.</p> <p>students will be able to know and learn the meaning, nature and importance of business finance.</p> <p>students will be able to know and learn the various sources of funds into owners' funds.</p> <p>students will be able to know and learn the meaning of owners' funds.</p> <p>students will be able to know and learn the meaning of borrowed funds</p>
		<p>Small Business</p> <ul style="list-style-type: none"> • Meaning of small business • Nature of small 	<p>1.Acquisition of knowledge:</p> <p>To enable them to know Meaning of small-scale</p>	<p>small scale Organisation</p> <p>Entrepreneurs</p> <p>hip Intellectual property</p> <p>Intellectual</p>	<p>Integrated with</p> <p>Painting and Sketch</p> <p>Poster on</p>	<p>Some relevant topics in the chapter to be integrate with the</p>	<p>Project on Government schemes for MSME</p>	<p>Face to face interaction through digital learning like educational video/documentary/YouTube</p>	<p>Audio visual learning of Functions</p>	<p>Conceptual learning</p> <ul style="list-style-type: none"> *Thought provoking. *Critical 	<p>students will be able to know and learn the concept of</p>

Oct	13	<p>business</p> <ul style="list-style-type: none"> • Role of small business in India • Problems of small businesses • Government assistance to small Industries and small units • Institutional support for small business <p>Marketing support to MSME</p> <p>What can be marketed?</p>	<p>Organisation Meaning of entrepreneurship Intellectual property rights</p> <p>2. Development of understanding:</p> <p>*To enable students to understand: Government assistance and special schemes for industries in rural, backward and hilly areas.</p> <p>Functions of NSIC</p> <p>Types of Intellectual property rights</p>	<p>property rights NSIC DIC NABARD RRB Patent Copyright Trademark</p>	<p>Government assistance and special schemes for industries in rural, backward and hilly areas.</p>	<p>other subjects.</p> <p>Government assistance and special schemes for industries in rural, backward and hilly areas is integrated with business law.</p>		<p>link regarding the Government assistance and special schemes for industries in rural, backward and hilly areas.</p>	<p>of NSIC & Government assistance and special schemes for industries in rural, backward and hilly areas</p>	<p>thinking</p> <ul style="list-style-type: none"> *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc 	<p>Entrepreneurship Development (ED), Intellectual Property Rights</p> <p>students will be able to know and learn the meaning of small business.</p> <p>students will be able to know and learn the role of small business in India.</p> <p>students will be able to know and learn the various Government schemes and agencies for development of small-scale industries. NSIC and DIC with special reference to rural, backward area.</p>
		<p>Internal Trade</p> <ul style="list-style-type: none"> • Wholesale trade: • Concept and services • Retail trade: concept and services • Types of retail trade • Itinerant 	<p>1.Acquisition of knowledge:</p> <ul style="list-style-type: none"> • To enable them to know • Meaning and features of internal trade <p>Types of internal trade Advantages of direct trade</p> <p>2. Development of</p>	<ul style="list-style-type: none"> • internal trade direct trade Indirect trade • internal trade wholesale trade Retailers departmental stores. supermarket chain stores. GST 	<p>Integrated with</p> <p>Painting and Sketch Poster on different types of internal trade.</p>	<p>Some relevant topics in the chapter to be integrate with the other subjects.</p> <p>Wholesale and retail trade business is</p>	<p>Project on different types of wholesale & retail business.</p>	<p>Face to face interaction through digital learning like educational video/YouTube link regarding the wholesale trade Retailers departmental stores. supermarket chain stores. GST CGST SGST IGST</p>	<p>Audio visual learning of wholesale trade Retailers departmental stores. supermarket chain stores. GST CGST SGST IGST</p>	<p>Conceptual learning</p> <ul style="list-style-type: none"> *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order 	<p>Students will be able to know and learn the meaning and types of internal trade.</p> <p>students will be able to know and learn the services of</p>

Nov	22	<p>Retailers</p> <ul style="list-style-type: none"> • Fixed shop retailers • Departmental shop: Features, merits and demerits • Chain stores: Features, merits and demerits • Mail order house: Features, merits and demerits • Consumers co-operative store: Features, merits and demerits • Supermarket: Features, merits and demerits • Vending machine • Role of commerce and Industry association in promotion of internal trade 	<p>understanding:</p> <ul style="list-style-type: none"> • To enable students to understand: • Main documents used in internal trade. • Meaning & features of wholesale trade • Meaning & features of retail trade • Diff. Between wholesaler & retailers • Meaning, features, advantages & disadvantages of departmental stores. • Meaning, features, advantages & disadvantages of supermarket • Meaning, features, advantages & disadvantages of chain stores. • Diff. Between departmental & chain store • Meaning, features, advantages & disadvantages of mail order business. • Meaning, features, advantages & disadvantages of 	<ul style="list-style-type: none"> • CGST SGST IGST • Cash memo. Invoice/bill. Receipts Debit note. • Credit note. Pay-in-slip. international business. 		<p>integrated with Geography & History.</p>					<p>thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc</p>	<p>wholesalers and retailers. students will be able to know and learn the different types of retail trade. students will be able to know and learn the distinctive features of departmental stores, chain stores and mail order business. students will be able to know and learn the concept of GST.</p>
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			GST								
Dec	23	<p>International Business -II</p> <ul style="list-style-type: none"> • Concept • International business versus domestic business • Scope of international business <p>Benefits of international business</p> <ul style="list-style-type: none"> • Modes of entry into international business • Introduction • Export procedure • Import procedure • Foreign Trade promotion measures and scheme • Organizational support • IMF: Objectives and functions • WTO: Objectives and functions • World Bank: Functions & Project 	<p>1.Acquisition of knowledge:</p> <ul style="list-style-type: none"> • To enable them to know • Meaning, nature & benefits of international business. • Scope of international business. • Meaning of import trade & export trade • Features, objectives and functions of WTO <p>2. Development of understanding:</p> <ul style="list-style-type: none"> • To enable students to understand: Procedure of import trade & export trade • Important documents used in import trade & export trade. 	<p>Trade enquiry</p> <p>Import license.</p> <p>Foreign exchange</p> <p>Indent</p> <p>Letter of credit</p> <p>Shipment</p> <p><u>Document of title</u></p> <p>Clearing agent</p> <p>Railway receipts</p> <p>Octroi duty</p> <p>World Trade Organisation</p>	<p>Integrated with</p> <p>Painting and Sketch</p> <p>Poster on procedure of import and export.</p>	<p>Some relevant topics in the chapter to be integrate with the other subjects.</p> <p>International trade is integrated with History & Economics.</p>	<p>Project on import and export procedure & functions of WTO.</p>	<p>Face to face interaction through digital learning like</p> <p>educational video/ documentary/YouTube link regarding functions of WTO</p>	<p>Audio visual learning of</p> <p>Procedure followed in import and export trade and documents used.</p>	<p>Conceptual learning</p> <p>*Thought provoking.</p> <p>*Critical thinking</p> <p>*Logical reasoning</p> <p>*Analyzing,</p> <p>*Comprehending</p> <p>*High order thinking</p> <p>*Assertion and Reasoning</p> <p>*Picture based</p> <p>*Source based learning</p> <p>*Story telling pedagogy</p> <p>*Oral drilling</p> <p>*Quizzing</p> <p>*Creating and engaging</p> <p>*Mind mapping etc</p>	<p>students will be able to know and learn the concept of international trade.</p> <p>students will be able to know and learn the scope of international trade to the nation and business firms.</p> <p>students will be able to know and learn the meaning of WTO.</p> <p>students will be able to know and learn the objectives of WTO in promoting international trade.</p>
Jan	16										
Feb	00										

SUBJECT: Physical Education

Textbook: 1. Saraswati Health and Physical Education

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23							
May	07							
June	16	Unit 1: Changing Trends & Career in Physical Education Unit 2: Olympic Value Education	Understand the concept and importance of physical education. Understand the history and development of the Olympic Games.	<ul style="list-style-type: none"> Design a collage of famous athletes and sports professions. Draw and explain Olympic rings and symbols. 	<ul style="list-style-type: none"> Encourage participation from all students in discussions Encourage all students to share ideas about sportsmanship. 	<ul style="list-style-type: none"> Prepare a career research project on any one sports profession Presentation on an Olympic athlete or sport.. 	<ul style="list-style-type: none"> Group discussion: "How physical education contributes to a healthy society". Organize a mini Olympic sports event in classroom 	<ul style="list-style-type: none"> Identify various career opportunities in sports and fitness. Describe the significance of the Olympic movement. Demonstrate sportsmanship and teamwork.
July	26	Unit 3: Yoga Unit 4: Physical Fitness, Wellness and Lifestyle	<p><u>Understand the importance of yoga in daily life.</u></p> <p><u>Understand the components of physical fitness.</u></p>	<ul style="list-style-type: none"> <u>Draw diagrams of yoga asanas with benefits.</u> <u>Create a healthy lifestyle chart or poster.</u> 	<ul style="list-style-type: none"> <u>Provide alternative or simplified yoga poses for students with physical limitations.</u> <u>Provide simple exercises suitable for different ability levels.</u> 	<ul style="list-style-type: none"> Demonstrate five yoga asanas and explain their benefits. Maintain a weekly fitness diary. 	<ul style="list-style-type: none"> Daily short yoga practice sessions. Conduct fitness tests such as flexibility and endurance activities. 	<ul style="list-style-type: none"> Explain the role of yoga in improving health. Plan simple activities for maintaining health.
Aug	24	Unit 5: Physical fitness, wellness	Understand leadership qualities in sports.	<ul style="list-style-type: none"> <u>Make a mind map showing qualities of a good leader.</u> 	<ul style="list-style-type: none"> <u>Assign leadership roles to different students to ensure participation.</u> 	<ul style="list-style-type: none"> Organize a small sports event or class activity. 	<ul style="list-style-type: none"> Role play activities (team captain, referee, coach). 	<ul style="list-style-type: none"> Demonstrate leadership skills during sports activities.
Sep	23	Revision and Term 1 Examination						
Oct	22	Unit 6: Test, Measurement and Evaluation Unit-7: Fundamental of Anatomy and Physiology in Sports	Understand how physical performance is measured. Understand the role of body systems during exercise.	<ul style="list-style-type: none"> <u>Create charts explaining different fitness tests.</u> Draw and label human skeletal or muscular system diagrams. 	<ul style="list-style-type: none"> <u>Adapt tests according to students' physical abilities.</u> Use models, charts and videos to simplify concepts 	<ul style="list-style-type: none"> Conduct fitness testing for classmates and record results. Prepare a chart or model of body systems. 	<ul style="list-style-type: none"> Analyze fitness data and suggest improvements. Measure pulse rate before and after exercise. 	<ul style="list-style-type: none"> Conduct simple fitness tests. Interpret and record fitness results. Explain how the body responds to physical activity.
Nov	16	Unit 8: Fundamentals of Kinesiology and Biomechanics	Understand basic principles of human movement.	<ul style="list-style-type: none"> Draw diagrams showing body movements in sports. 	<ul style="list-style-type: none"> Demonstrate movements using simple examples. 	<ul style="list-style-type: none"> Analyze movements in activities such as running or jumping. 	<ul style="list-style-type: none"> Observe and correct body posture during 	<ul style="list-style-type: none"> Apply principles of movement to improve sports performance.

							physical activities.	
Dec	24	Unit 9: Psychology & Sports	To enable students to understand various aspects of development. To understand that people have different perspectives.	<ul style="list-style-type: none"> Students create a poster illustrating motivation in sports. Students create a poster illustrating motivation in sports. 	<ul style="list-style-type: none"> Provide real-life sports examples to help students understand concepts easily. Use visual aids, charts, and videos to explain psychological concepts. 	<ul style="list-style-type: none"> Study a famous athlete and explain how psychological factors helped them succeed. 	<ul style="list-style-type: none"> Students write about their feelings before and after participating in a game. 	<ul style="list-style-type: none"> Identify different psychological factors influencing athletes. Understand the role of mental strength in achieving success in sports.
Jan	14	Unit 10: Training and doping in Sports	<p>Understand the concept and importance of sports training.</p> <p>Identify different principles and methods of training used in sports.</p> <p>Explain the meaning of doping and banned substances in sports.</p> <p>Recognize the negative effects of doping on health and sports ethics.</p>	<ul style="list-style-type: none"> Design a poster promoting “Say No to Doping in Sports”. Create a chart showing principles of sports training. Draw an infographic showing different types of physical training (strength, endurance, flexibility). 	<ul style="list-style-type: none"> Use visual charts, diagrams, and videos to explain training methods. Use real-life examples to help students understand the dangers of doping. 	<ul style="list-style-type: none"> Prepare a weekly training schedule for improving physical fitness. Study and report on cases of doping in sports and their consequences. 	<ul style="list-style-type: none"> Students perform basic exercises such as running, stretching, and strength drills. Students design a training routine for a beginner athlete. 	<ul style="list-style-type: none"> Identify different methods used to improve physical performance. Understand the concept and harmful effects of doping. Demonstrate basic training exercises correctly.
Feb	22	Revision and Term 2 Examination						

SUBJECT : GRAPHICS

Text Book : 1. HISTORY OF INDIAN ART - 1
2. ALL IN ONE FINE ARTS CLASS 11

Month	WD	Chapter/ Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
APRIL	23	<p>1.Pre-Historic rock painting Introduction to rock Painting Appreciation of; a). A Roaring Animal, Bhimbetka b) Wizard Dance 2.Art of Indus Valley Introduction to Indus Valley Appreciation of; a) Terracotta figure of Bearded Priest b) Dancing Girl c)Male Torso d)Mother Goddess e) Bull seal f) Decorated Earthen wares</p>	<p>To give knowledge of</p> <p><u>Bhimbetka</u></p> <p><u>Roaring animal</u></p> <p><u>Wizard dance</u></p>	In math's in various topics as trigonometry, mensuration	In math's in various topics as trigonometry, mensuration	Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print	Giving Notes and MCQ on the topic, taking LOA	Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print
MAY	08	<p>1.Pre-Historic rock painting Introduction to rock Painting Appreciation of; a). A Roaring Animal, Bhimbetka b) Wizard Dance 2.Art of Indus Valley Introduction to Indus Valley Appreciation of; a) Terracotta figure of Bearded Priest b)Dancing Girl c)Male Torso d)Mother Goddess e) Bull seal f) Decorated Earthen wares</p>	<p>To give knowledge of</p> <p><u>Bhimbetka</u></p> <p><u>Roaring animal</u></p> <p><u>Wizard dance</u></p>	In maths in various topics as trigonometry, mensuration	In maths in various topics as trigonometry, mensuration	Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print	Giving Notes and MCQ on the topic, taking LOA	Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print

JUNE	14	<p>1.Pre-Historic rock painting Introduction to rock Painting Appreciation of; a). A Roaring Animal, Bhimbetka b) Wizard Dance 2.Art of Indus Valley Introduction to Indus Valley Appreciation of; a) Terracotta figure of Bearded Priest b) Dancing Girl c)Male Torso d)Mother Goddess e) Bull seal f) Decorated Earthen wares</p>	<p>To give knowledge of <u>Bhimbetka</u> <u>Roaring animal</u> <u>Wizard dance</u></p>	In maths in various topics as trigonometry, mensuration	In maths in various topics as trigonometry, mensuration	Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print	Giving Notes and MCQ on the topic, taking LOA	Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print
JULY	26	<p>3.Art During Mauryan, Shunga and Gupta Period Introduction to Art during these periods Appreciation of; a)Lion Capital b)Chauri Bearers c)Bodhisattva Head From Taxila d)Buddha from Katra Mound e)Seated Buddha From Sarnath f) Jain Tirthankara (Gupta Period) 4.Introduction to Ajanta Location, Period, Subject Matter, Technique Appreciation of; a) Padmapani Bodhisattva b) Mara Vijay</p>	<p>To gain Knowledge of a)Lion Capital b)Chauri Bearers c)Bodhisattva Head From Taxila d)Buddha from Katra Mound e)Seated Buddha From Sarnath f) Jain Tirthankara (Gupta Period) a) Padmapani Bodhisattva b) Mara Vijay</p>	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print	Giving Notes and MCQ on the topic, taking LOA	Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print
AUG	22	<p>3.Art During Mauryan, Shunga and Gupta Period Introduction to Art during these periods Appreciation of; a)Lion Capital b)Chauri Bearers c)Bodhisattva Head From</p>	<p>To gain Knowledge of a)Lion Capital b)Chauri Bearers c)Bodhisattva Head From Taxila d)Buddha from Katra Mound e)Seated Buddha From</p>	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print	Giving Notes and MCQ on the topic, taking LOA	Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print

		<p>Taxila d) Buddha from Katra Mound e) Seated Buddha From Sarnath f) Jain Tirthankara (Gupta Period) 4. Introduction to Ajanta Location, Period, Subject Matter, Technique Appreciation of; a) Padmapani Bodhisattva b) Mara Vijay</p>	<p>Sarnath f) Jain Tirthankara (Gupta Period) a) Padmapani Bodhisattva b) Mara Vijay</p>					
SEPT	05	Revision for TERM – 1 Chapter 1,2,3,4.						
OCT	13	<p>5. Artistic Aspects of Indian Temples Introduction to Temple Sculptures Appreciation of; a) Decent of Ganga b) Ravana shaking Mt. Kailasha c) Trimurti d) Lakshmi Narayana f) Cymbal Player g) Mother and Child 6. Indian Bronze Sculptures Introduction to Indian Bronze Sculptures Method of Casting Appreciation of ; 1. Natraja 2. Devi(Uma)</p>	<p>To learn about Indian Bronze sculpture</p>	Shapes and mensuration math	Shapes and mensuration math	Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print	Giving Notes and MCQ on the topic, taking LOA	Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print
NOV	22	<p>5. Artistic Aspects of Indian Temples Introduction to Temple Sculptures Appreciation of; a) Decent of Ganga b) Ravana shaking Mt. Kailasha c) Trimurti d) Lakshmi Narayana</p>	<p>To learn about Indian Bronze sculpture</p>	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print	Giving Notes and MCQ on the topic, taking LOA	Graphic Students will Draw and Paint Graphic Layout in black, blue or red color , Wood print and Serigraphy print

		f)Cymbal Player g)Mother and Child 6.Indian Bronze Sculptures Introduction to Indian Bronze Sculptures Method of Casting Appreciation of ; 1.Natraja 2.Devi(Uma)						
DEC	23	7.Artistic aspects of Indo Islamic Architecture Introduction to architecture Imperial style Provincial style Mughal style Deccani Style Appreciation of; a)Qutub Minar b)Taj mahal c)Gol Gumbaz	To learn about Indo Islamic Architecture	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print	Giving Notes and MCQ on the topic, taking LOA	Graphic Students will Draw and Paint Graphic Layout in black, blue or red color , Wood print and Serigraphy print
JAN	16	7.Artistic aspects of Indo Islamic Architecture Introduction to architecture Imperial style Provincial style Mughal style Deccani Style Appreciation of; a)Qutub Minar b)Taj mahal c)Gol Gumbaz	To learn about Indo Islamic Architecture	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print	Giving Notes and MCQ on the topic, taking LOA	Graphic Students will Draw and Paint Graphic Layout in black, blue or red color , Wood print and Serigraphy print

SUBJECT : PAINTING

Text Book : 1. HISTORY OF INDIAN ART - 1
2. ALL IN ONE FINE ARTS CLASS 11

Month	WD / NOP	Chapter/ Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
APRIL	24	<p>1.Pre-Historic rock painting Introduction to rock Painting Appreciation of; a). A Roaring Animal, Bhimbetka b) Wizard Dance 2.Art of Indus Valley Introduction to Indus Valley Appreciation of; a) Terracotta figure of Bearded Priest b) Dancing Girl c)Male Torso d)Mother Goddess e) Bull seal f) Decorated Earthen wares</p>	<p>To give knowledge of <u>Bhimbetka</u> <u>Roaring animal</u> <u>Wizard dance</u></p>	In math's in various topics as trigonometry, mensuration	In math's in various topics as trigonometry, mensuration	Practical Painting Still life in pencil shading <u>Minimum 2 still life or Object has to be done</u>	Giving Notes and MCQ on the topic, taking LOA	Painting Students will make the painting. Still life, Nature study and Composition in Water Color
MAY	08	<p>1.Pre-Historic rock painting Introduction to rock Painting Appreciation of; a). A Roaring Animal, Bhimbetka b) Wizard Dance 2.Art of Indus Valley Introduction to Indus Valley Appreciation of; a) Terracotta figure of Bearded Priest b)Dancing Girl c)Male Torso d)Mother Goddess e) Bull seal f) Decorated Earthen wares</p>	<p>To give knowledge of <u>Bhimbetka</u> <u>Roaring animal</u> <u>Wizard dance</u></p>	In maths in various topics as trigonometry, mensuration	In maths in various topics as trigonometry, mensuration	Practical Painting <u>Minimum 2 still life or Object has to be done</u> <u>Practical for Graphic</u>	Giving Notes and MCQ on the topic, taking LOA	Painting Students will make the painting. Still life, Nature study and Composition in Water Color

JUNE	14	1.Pre-Historic rock painting Introduction to rock Painting Appreciation of; a). A Roaring Animal, Bhimbetka b) Wizard Dance 2.Art of Indus Valley Introduction to Indus Valley Appreciation of; a) Terracotta figure of Bearded Priest b) Dancing Girl c)Male Torso d)Mother Goddess e) Bull seal f) Decorated Earthen wares	To give knowledge of <u>Bhimbetka</u> <u>Roaring animal</u> <u>Wizard dance</u>	In maths in various topics as trigonometry, mensuration	In maths in various topics as trigonometry, mensuration	Practical Painting <u>Minimum 2 still life or Object has to be done</u> <u>Black or Blue colour</u>	Giving Notes and MCQ on the topic, taking LOA	Painting Students will make the painting. Still life, Nature study and Composition in Water Color
JULY	26	3.Art During Mauryan, Shunga and Gupta Period Introduction to Art during these periods Appreciation of; a)Lion Capital b)Chauri Bearers c)Bodhisattva Head From Taxila d)Buddha from Katra Mound e)Seated Buddha From Sarnath f) Jain Tirthankara (Gupta Period) 4.Introduction to Ajanta Location, Period, Subject Matar, Technique Appreciation of; a) Padmapani Bodhisattva b) Mara Vijay	To gain Knowledge of a)Lion Capital b)Chauri Bearers c)Bodhisattva Head From Taxila d)Buddha from Katra Mound e)Seated Buddha From Sarnath f) Jain Tirthankara (Gupta Period) a) Padmapani Bodhisattva b) Mara Vijay	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Minimum 2 flower has to be done in pencil shading or Charcoal Practical Painting <u>Minimum 2 still life or Object has to be done</u>	Giving Notes and MCQ on the topic, taking LOA	Painting Students will make the painting. Still life, Nature study and Composition in Water Color
AUG	22	3.Art During Mauryan, Shunga and Gupta Period Introduction to Art during these periods Appreciation of; a)Lion Capital	To gain Knowledge of a)Lion Capital b)Chauri Bearers c)Bodhisattva Head From Taxila d)Buddha from Katra	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Minimum 2 flower has to be done in pencil shading or Charcoal Practical Painting	Giving Notes and MCQ on the topic, taking LOA	Painting Students will make the painting. Still life, Nature study, and Composition in Water Color

		b)Chauri Bearers c)Bodhisattva Head From Taxila d)Buddha from Katra Mound e)Seated Buddha From Sarnath f) Jain Tirthankara (Gupta Period) 4.Introduction to Ajanta Location, Period, Subject Mattar, Technique Appreciation of; a) Padmapani Bodhisattva b) Mara Vijay	Mound e)Seated Buddha From Sarnath f) Jain Tirthankara (Gupta Period) a) Padmapani Bodhisattva b) Mara Vijay			<u>Minimum 2 still life or Object has to be done Practical for Graphic</u>		
SEPT	05	Revision for TERM – 1 Chapter 1,2,3,4.						
OCT	13	5.Artistic Aspects of Indian Temples Introduction to Temple Sculptures Appreciation of; a)Decent of Ganga b)Ravana shaking Mt. Kailasha c)Trimurti d)Lakshmi Narayana f)Cymbal Player g)Mother and Child 6.Indian Bronze Sculptures Introduction to Indian Bronze Sculptures Method of Casting Appreciation of ; 1.Natraja 2.Devi(Uma)	To learn about Indian Bronze sculpture	Shapes and mensuration math	Shapes and mensuration math	Make a project file on Mughal miniature art Minimum 4 composition	Giving Notes and MCQ on the topic, taking LOA	Painting Students will make the painting. Still life, Nature study and Composition in Water Color

NOV	22	5.Artistic Aspects of Indian Temples Introduction to Temple Sculptures Appreciation of; a)Decent of Ganga b)Ravana shaking Mt. Kailasha c)Trimurti d)Lakshmi Narayana f)Cymbal Player g)Mother and Child 6.Indian Bronze Sculptures Introduction to Indian Bronze Sculptures Method of Casting Appreciation of ; 1.Natraja 2.Devi(Uma)	To learn about Indian Bronze sculpture	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Make a project file on Mughal miniature art Minimum 4 composition	Giving Notes and MCQ on the topic, taking LOA	Painting Students will make the painting. Still life, Nature study and Composition in Water Color
DEC	23	7.Artistic aspects of Indo Islamic Architecture Introduction to architecture Imperial style Provincial style Mughal style Deccani Style Appreciation of; a)Qutub Minar b)Taj mahal c)Gol Gumbaz	To learn about Indo Islamic Architecture	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Make a project file on Mughal miniature art Minimum 4 composition	Giving Notes and MCQ on the topic, taking LOA	Painting Students will make the painting. Still life, Nature study and Composition in Water Color
JAN	16	7.Artistic aspects of Indo Islamic Architecture Introduction to architecture Imperial style Provincial style Mughal style Deccani Style Appreciation of; a)Qutub Minar b)Taj mahal c)Gol Gumbaz	To learn about Indo Islamic Architecture	Shapes and mensuration mathematics	Shapes and mensuration mathematics	Make a project file on Mughal miniature art Minimum 4 composition	Giving Notes and MCQ on the topic, taking LOA	Painting Students will make the painting. Still life, Nature study and Composition in Water Color

SUBJECT: HINDUSTANI MUSIC (VOCAL) (034)

Month	WD	Chapter/Sub-Topics	Learning Objectives	Key Terms and Concept	Art Integration	Inclusive Teaching	Project / Practical
	NOP						
April	24	Brief study of the following :- ➤ Nada ➤ Shruti, ➤ Swar ➤ Saptak ➤ Thaata ➤ Jati, ➤ Laya ➤ Tala Taal - “Teentaal, Ektaal and Chautaal” Parichay with Tala Notation and hand Demonstration with Thah, Dugun, Tigun and Chaugun Laykari.	To know about Basic of Musical notes along with Types of Swar Sudh and Vikrut Swar Hand demonstration of taal along with taali khali and Bibhag	Key Terms ➤ Taali ➤ Matra ➤ Bibhag ➤ Swar ➤ Khali ➤ Theka ➤ Alankar ➤ Ekgun	Integration with Songs in this Particular taals	Defination of Pitch and Volume	Making Project file regarding this Taals and different Variations of it
May	08						
June	14	Brief study of the following ➤ Raag ➤ Desi and Margi Sangeet ➤ Dhrupad ➤ Khayal ➤ Tarana Raag - Bhimpalasi & Bihag (Parichay and One Drut Khayal with simple elaborations and few tanas along with Tarana and Dhamar)	To know about Raag and its charectrestics Knowing about various Kinds of Gayan shaili In Music And Gharana Sangeet	Key Terms ➤ Jaati ➤ Thaata ➤ Vadi ➤ Samwadi ➤ Aaroh ➤ Avroh ➤ Pakad	Integration with a story of	Inclusive with different types of songs	Making project mentioning the the various kinds of gharana and gaayna shaili
July	26						
Aug	22	Detail study of the following ➤ Musical Elements in Natya Shashtra Life sketch and Contribution ➤ Pt. V.N Bhatkhande	To know about the elements of Natyashashta in music “Sangeet Naad Muchhayte” Properly described Thaata and Naad Swar. Knowing about Contribution of Pt V.N Bhatkhande in music	Key Terms ➤ Origin ➤ Writer ➤ Concepts ➤ Valuable works ➤ Musical background of the	Integration with morden music and Moovie Song	Core elements of Musical Natyashashtra	Making a Bullet poin notes in that topic

				➤ Artists ➤ Gharana			
Sept	05						
Oct	13			Key Terms			
Nov	22	<p>Raag - Bhairavi, Jaunpuri and One Devotional Song (Parichay and One Drut Khayal with simple elaborations and few tanas along with Tarana and Dhamar)</p> <p>Life sketch and Contribution ➤ Pt. V.D Palushkar</p>	<p>To know about Singing in Teentaal Bandsih along with the notation of the raag and Use of Aalap And taan with the help of this Raag notes</p>	<p>➤ Jaati ➤ Thaata ➤ Vadi ➤ Samwadi ➤ Aaroh ➤ Avroh ➤ Pakad</p>	Bhajan in this Raag	Use of alankar in this Raag	Writing the notation of the song along with its script of taal
Dec	23	<p>➤ Knowledge of the Structure of Tanpura</p>	<p>To know about different parts of tanpura and names of its different string instruments Similar String Instruments</p>	<p>Key Terms ➤ Khunti ➤ Aati ➤ Dand ➤ Gulu ➤ Bridge ➤ Tumba ➤ Strings</p>	Integration with other string instruments i:e Guitar	Playing and tuning Tanpura	Method of using tanpura process of Sound production from Tanpura
Jan							
Feb							

SUBJECT : GENERAL STUDIES

Unit I: Science and Technology APRIL 2026

- Application of science in daily life (cooking, transport, communication, etc.)
- Importance of science for improving life
- Emerging technologies:
 - Green technology
 - Nanotechnology
 - Biotechnology
- Science in social context:
 - Use and misuse of technology
 - Impact on healthcare, agriculture, warfare
 - Assistive technology for differently-abled people

Unit II: Understanding Social Structure MAY+ JUNE 2026

- Family, society, and social institutions
- Social relationships and roles
- Social issues and inequalities
- Cultural diversity in society

Unit III: Protection of Environment JULY+ AUGUST 2026

- Environmental issues (pollution, climate change, etc.)
- Conservation of natural resources
- Sustainable development
- Role of individuals in protecting environment

Unit IV: National Unity OCTOBER + NOVEMBER 2026

- Meaning and importance of national integration
- Diversity in India and unity
- Factors affecting national unity
- Role of citizens in nation-building

Unit V: International Understanding DECEMBER 2026

- Global interdependence
- International organizations and cooperation
- Peace and harmony among nations