

ACADEMIC ITINERARY

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THE CORE PURPOSE AND OBJECTIVE

The Academic Planner is thoughtfully designed in alignment with the **National Education Policy (NEP) 2020** and the **National Curriculum Framework (NCF)** to support meaningful, structured, and future-ready learning.

It serves as a comprehensive guide for academic planning, enabling students and teachers to organize learning goals, classroom activities, assessments, and reflections in a systematic manner. The planner promotes a shift from rote learning to competency-based and experiential learning, encouraging students to understand concepts deeply and apply knowledge in real-life contexts.

A strong emphasis is placed on **Subject Enrichment Activities (SEA)**, **Experiential Learning Acquisition (ELA)**, and **Art Integrated Learning (AIL)**, which are seamlessly integrated into the curriculum to foster hands-on learning, creativity, aesthetic sensibility, critical thinking, and problem-solving skills.

The planner supports flexible teaching-learning practices, digital integration, inclusive education, and holistic development. Through continuous feedback, reflection, and month-wise planning, it aims to nurture confident, responsible, and lifelong learners prepared for academic excellence and future challenges.

ENRICHMENT OPPORTUNITIES WITHIN THE CURRICULUM

Learning at our school is designed to extend beyond textbooks and classrooms, offering students enriching experiences that nurture curiosity, creativity, competence, and confidence. The curriculum integrates meaningful opportunities that promote active engagement, practical application, and holistic skill development in alignment with the vision of NEP 2020.

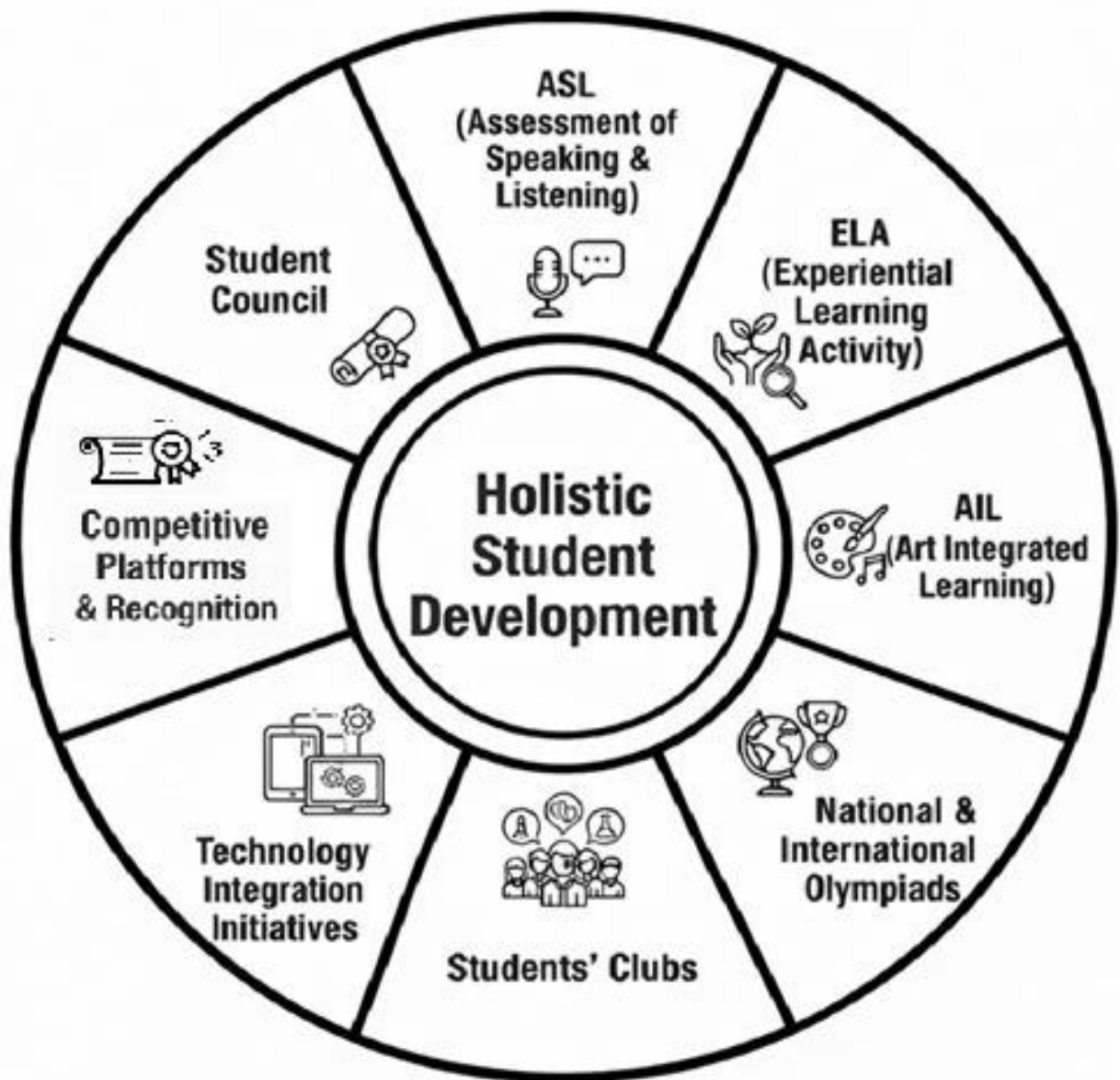
Students are provided with opportunities to develop academic understanding along with essential life skills through:

- **Project-Based and Inquiry-Based Learning:** Inquiry, collaboration, creativity, and presentation through real-world and interdisciplinary tasks.
- **Experiential and Hands-on Learning:** Hands-on activities, experiments, field visits, and practical exposure.
- **Art Integrated Learning (AIL):** Creative expression through visual and performing arts to strengthen concept clarity.
- **Technology and Digital Integration:** Use of digital tools and AI-enabled resources to build digital awareness and skills.
- **Communication and Language Skills:** Focus on speaking, listening, reading, writing, and vocabulary development.
- **Curricular and Co-curricular Engagement:** Building empathy, resilience, teamwork, leadership, and decision-making skills.
- **Environmental Awareness:** Promoting sustainability, conservation, and responsibility towards nature.
- **Co-curricular Engagement:** Participation in clubs, competitions, sports, and community service.

These opportunities ensure holistic, learner-centric development and prepare students to become confident, adaptable, and responsible individuals.

Holistic Development Framework: Empowering Students Beyond Academics

At SDHPS, we are committed to maintaining high standards of excellence by nurturing every dimension of a child's development. Our student development initiatives are designed to complement academic learning while promoting confidence, competence, and character.



Holistic Habits for Learner Development

1



REGULARITY & PUNCTUALITY

Attend classes daily and arrive on time.

2

PREPAREDNESS FOR LEARNING

Bring necessary materials and be ready to engage.



3



PERSONAL HYGIENE & HEALTH AWARENESS

Practice cleanliness and prioritize well-being.

4

COMMUNICATION & SPEAKING SKILLS

Express thoughts clearly and listen actively.



5



HOMEWORK & SELF-STUDY DISCIPLINE

Complete assignments and review lessons consistently.

6

POSITIVE BEHAVIOUR & VALUES

Show respect, kindness, and responsibility.



7



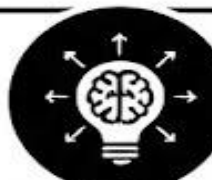
PERSONALITY & CONFIDENCE BUILDING

Believe in abilities and embrace challenges.

8

CONCEPT CLARITY, REFLECTION & FEEDBACK

Understand ideas, reflect on learning, and seek improvement.



EVALUATION CRITERIA

The Evaluation System is designed to promote holistic development and encourage regular, reflective, and experiential learning among students. Assessments emphasize competency-based evaluation, incorporating objective-type, application-based, and short-answer questions to measure conceptual understanding, critical thinking, and real-life application of knowledge.

Alongside continuous and comprehensive evaluation, periodic and term-end assessments are conducted as per the prescribed schedule to ensure ongoing academic progress and overall development of learners.

T E R M - 1		Periodic Assessment - I	Terminal Assessment	Total
	Maximum Marks	40	80	100
	Weightage	Half of PA -I	80	
	Tentative Dates	2nd Week of July	Mid of September	
T E R M - 2		Periodic Assessment II	Terminal Assessment	Total
	Maximum Marks	40	80	100
	Weightage	Half of PA - II	80	
	Tentative Dates	1st Week of December	February 1st Week	
Final Weightage		Average of T1 + T2		100

SCHOOL RECOMMENDED TEXTBOOKS – CLASS XI



English

Flamingo – Main Course (NCERT)

Vistas – Supp. Reader (NCERT)



Physics

S. L. Arora (Dhanpat Rai & Co.) & NCERT



Chemistry

Pradeep's New Course Chemistry (Pradeep Publications) & NCERT



Biology

Trueman's Elementary Biology [Vol. I] & NCERT



Mathematics

M.L. Aggarwal (Avichal Publishing) & NCERT



Computer Science

Computer Science with Python (Dhanpat Rai & Co.)



Physical Education

S.P. by Dr. Manu Sood

MONTH/ SUBJECT	ENGLISH LITERATURE (Code No. 301)
APRIL	<p>Prose: 1. The Portrait of a Lady, Poetry: 1. A Photograph Writing Section: 1. Notice 2. Letter to Editor, 3. Determiners SEA/ELA: "Word That Defines Me" Each student will choose one English word that represents their personality (e.g., dreamer, resilient, curious, calm). They introduce themselves: "My name is _ and my word is _ because..." AIL: Then vs Now Time Frame Art Students will split a sheet into past and present scenes, sketching the mother's beach childhood and the poet's memory. Adding two poetic lines under each, expressing time, loss, emotion, and remembrance. Skills Developed: Development of Linguistic Intelligence along with strengthening Social Skills</p>
MAY	<p>Prose: 2. We're Not Afraid to Die..If We Can All Be Together Poetry: 2. The Laburnum Top Supp. Reader: 1. The Summer of the beautiful white horse Writing Section: 5. Advertisement (classified, Display), 6. Letter on Placing an order , 7. Tenses SEA/ELA: "Ad Makeover Challenge" Students will redesign an advertisement into a more creative and appealing version by adding a catchy slogan, attractive logo, and persuasive lines, enhancing its visual impact and effectiveness. AIL: "Survival Smart: What's in My Kit?" Students will imagine that they are on a sinking ship. They will draw a survival kit bag and list 5 essential items they would carry, with reasons. Skills Developed: Critical Thinking, Decision Making Ability and Imagination.</p>
JULY	<p>Prose L.3 . Discovering Tut: The Saga Continues Supp. Reader: L.2. The Address Writing Section: Poster, Report, Business Letters Grammar: Modals (Additional Topic) SEA/ELA : Unmasking The Secrets of Pharaoh Tut Students will act as history detectives and prepare a case file on Tutankhamun, including key facts about his life, the mystery of his death, and important discoveries from his tomb.</p>

JULY	<p>AIL: My Memory Box A Journey of Precious Moments Students will draw a “Memory Box” and illustrate objects they would like to preserve inside it (such as photographs, gifts, letters, toys, etc.).They will write 3 4 lines explaining the emotional significance of the items.</p> <p>Skills Developed: Emotional Intelligence, the ability to analyse and research historical facts will be enhanced.</p>
AUGUST	<p>Prose: 5. The Adventure, Poem: 3. The Voice of the Rain, Writing Section & Grammar: 12. Article, 13. Job Application, SEA/ELA: Rain Journal Reflection of Raindrops Students will write a diary entry or short paragraph describing a rainy day from their own perspective, inspired by describing their feelings and nature’s response to rain</p> <p>AIL: Alternate History Timeline Poster Students will create slide 1 showing Real History(What actually happened) and Slide 2 showing Alternate History(If the Marathas had won)</p> <p>Skills Development: Self Reflection, Critical Thinking and Collaboration</p>
SEPTEMBER	REVISION FOR FIRST TERM EXAM
OCTOBER	<p>Poem 4. Childhood Supp. Reader: 3 Mother’s Day Writing Section & Grammar: 16. Speech 17. Active passive voice (Additional Topic), 18. Transformation of Sentences SEA: Role Reversal Drama Students will perform a short skit showing: Scene 1: Family taking Mrs. Pearson for granted. Scene 2: Mrs. Pearson confidently asserting herself. Scene 3: A balanced and respectful family relationship.</p> <p>AIL: Childhood Wheel: Colours of Emotions Students will create a wheel on a drawing sheet or chart paper dividing into sections. The number of sections depends on how many emotions you want to represent.</p> <p>Skills Developed: Communication skills, Critical Thinking and Stage Presence</p>
NOVEMBER	<p>Poem: 5. Father To Son Supp. Reader: 4. Birth Writing Section & Grammar: 19. Debate 20. Reported Speech (Additional Topic) SEA: Verbal Virtuosity Quiz- Students will be divided into groups to participate in four rounds covering Vocabulary, Figures of Speech, and one-word answer and MCQs.</p>

NOVEMBER	<p>ELA: Urban Traffic Solutions- Students will analyze urban traffic issues, utilizing cue cards with specific prompts. They discuss causes, impacts, and propose solutions.</p> <p>Skills Developed: Critical thinking, problem-solving, research proficiency, social awareness</p>
DECEMBER	<p>Prose: 6. Silk Road Supp. Reader: 5. The Tale of Melon City Writing Section & Grammar: 21. Invitation (Additional Topic), 22. Integrated Grammar SEA/ELA: Through Their Eyes: Silk Road Edition One student will play the narrator; the other will ask questions about places, people, or experiences to explore the narrator’s perspective and emotions AIL: Satire on Stage: Life in Melon City Students will be given individual role cards. They will understand characters, satire, and absurdity in The Tale of Melon City and will explain the same through creative role play, collaboration, and critical thinking. Skills Developed: Listening Skills, Critical Thinking and Perspective -Taking</p>
JANUARY – FEBRUARY	DOUBT CLASSES & REVISION FOR FINAL TERM EXAM
<p>Discussion from Resource Book will be taken parallel to the chapters every month.</p>	
MONTH/ SUBJECT	<p>PHYSICS (Code No. 042)</p>
APRIL	<p>Ch-1 Units and Dimensions, Ch-2 Motion In Straight Line SEA: Human Motion Simulation - Students from each group will apply kinematic principles such as displacement, velocity and acceleration to analyze and simulate the pattern to understand the mechanics. ELA: -Motion Graph - Students will use various real-life objects(small toy cars, small balls and marble stones) etc. to represent their velocities at different intervals of time and design a motion morph sculpture.. Skills Developed: Problem solving, Analytical thinking.</p>

<p>MAY</p>	<p>Ch-3 Motion In Plane , Ch-4 Laws Of Motion SEA: Physics Pantomine - Class will be divided into two teams and act out different scenarios related to laws of motion which will make the learning more interactive. ELA: Force And Motion Frenzy - Students will create a pair of cards with different situations (e.g friction, gravity ,Newton's Laws) given by the teacher in the class to understand and recall key concept related to force and motion. Skills Developed: Interactive Learning, Problem Solving</p>
<p>JULY</p>	<p>Ch-5 Work, Energy And Power, Ch-6 System of Particle and Rational Motion SEA: Work-Energy Avenue-(Real World Application Research) - Students will be divided into different groups and create posters, collage and display area for these types of work and its application in daily life. ELA: Energy-Exchange Network - Each group of students will show the transformation of energy with the help of examples (stones, marbles and toy cars) and explain the significance of each type of energy by plotting the map and graph related to it. Skills Developed: Analytical thinking, Creativity & Collabration</p>
<p>AUGUST</p>	<p>Ch-7 Gravitation , Ch-8 Mechanical Properties Of Solids SEA: Deform To Perform - In each group, students will use everyday materials (rubber bands, plastic straw,clay etc.) and explain the behaviour of different materials by applying force to represent stress-strain curve. ELA: Cosmic Gravity - Students will narrate a short story that explore the implication of gravity also for space exploration along with the explanation of how gravity affects the motion of celestial bodies such as planets and stars. Skills Developed: critical thinking, hands on learning.</p>
<p>SEPTEMBER</p>	<p>Ch-9 Mechanical Properties Of Fluids REVISION FOR FIRST TERM EXAM</p>

<p>OCTOBER</p>	<p>Ch-10 Thermal Properties of matter, Ch-11 Thermodynamics SEA: Surface Sleuths - Students in each group will use different materials (soapwater, paper clip, paint brush etc.)to perform the task (effect of surface tension) and interpret the results for the concept of surface tension. ELA: Solar Heating &Surface Albedo - Students will investigate how different surface colors affect heat absorption by measuring temperature for the phenomenon absorptivity and reflectivity and represent their final results in the class. Skill Developed: Analytical thinking, problem-based learning.</p>
<p>NOVEMBER</p>	<p>Ch-12 Behavior of Kinetic Theory and Gases , Ch-13 Oscillations SEA: Acoustic Analysis - Students will delve into the world of resonance, discovering how waves interact with their environment, and visualizing the harmonics that shape our acoustic reality. ELA: Wave Symphony - Students will orchestrate a mesmerizing blend of sound and science, uncovering the wave dynamics that govern musical instruments(glass,bottles & singing bowl). Skill Developed: Experiential learning, data analysis.</p>
<p>DECEMBER</p>	<p>Ch-14 Waves SEA: Science of Sound - Students in each group will explore the fundamentals of sound waves through oscillations, analyzing frequency, amplitude, and waveforms. Investigate how vibrations produce sound, illustrating the physics behind music, speech, and hearing. ELA: Virbo Visual - Students will be engaged animations to simulate various oscillation types, helping them to visualize complex concepts like simple harmonic motion and damping. Interactive animations enable them to adjust parameters, observe changes, & develop a deeper understanding of oscillatory motion. Skills Developed: Analytical skill, creativity & innovation.</p>
<p>JANUARY – FEBRUARY</p>	<p>DOUBT CLASSES & REVISION FOR FINAL TERM EXAM</p>
<p>Discussion of Assignments will be taken parallel to the chapters every month.</p>	

MONTH/ SUBJECT	PHYSICS LAB ACTIVIES
APRIL	Exp1 :To find the diameter of wire by using screw gauge. Exp2:To find the volume of spherical body by using vernier calliper.
MAY	Exp3- To find the volume of cylinder by using vernier calliper.
JULY	Exp4- To find the radius of curvature of spherical body.
AUGUST	Exp5- To Explain the stress strain relationship curve of loaded wire.(Hook's Law)
OCTOBER	Exp6- To study the factors affecting the rate of loss of heat on liquid.

MONTH/ SUBJECT	CHEMISTRY (Code No. 043)
APRIL	<p>Ch-1. Some Basic Concepts of Chemistry Ch-2. Structure of Atom ELA/SEA: Tools in Action -“Mystery Solution Challenge”: Teacher provides an unknown household liquid, and students must identify whether it's acidic, basic, or neutral using their indicator toolkit. AIL: "Chemistry in Your Kitchen" – The Science of Acids, Bases, and Indicators“. The teacher will help students to test different kitchen substances with both natural and lab indicators (litmus, phenolphthalein, methyl orange). Skills Developed- Analytical Thinking, Precision in laboratory techniques, application of theory to real-world contexts.</p>
MAY	<p>Ch-3. Periodic Classification Ch-4. Chemical bonding & molecular structure ELA/SEA- Prepare cards labeled with orbitals (1s, 2s, 2p, etc.). Students arrange them according to Aufbau principle, Hund's rule, and Pauli's exclusion principle. AIL- Bonding Basics through Models: Use colored balls and sticks (or clay + toothpicks) to build models of molecules like H₂O, NH₃, CO₂. Skills Developed- Logical reasoning, Visualization of abstract concepts, Spatial reasoning (3D arrangement of atoms), Collaboration in group model-building.</p>

<p style="text-align: center;">JULY</p>	<p>Ch-5. Thermodynamics ELA/SEA: Hybridization with Origami: Fold paper shapes to represent orbitals (spherical for s, dumbbell for p). Combine them to show sp, sp², sp³ hybridization. Visualize orbital mixing and geometry. AIL: Poster/Collage Creation: Create posters illustrating the laws of thermodynamics using real-life examples: First Law: A steam engine converting heat into work. Second Law: Ice melting in a warm room. Use vibrant colors and symbolic art (e.g., arrows for energy flow, flames for heat, gears for work). Skills Developed- Creativity, Analytical thinking, Students visualize bond angles</p>
<p style="text-align: center;">AUGUST</p>	<p>Ch-6. Equilibrium ELA/SEA: The Purple Pendulum - Teacher will prepare a KMnO₄ solution and will slowly add H₂SO₄ to the solution, and observe the purple color fading as MnO₄⁻ is reduced to Mn²⁺. Introduce more KMnO₄ to reverse the reaction and restore the purple color, showing a shift in equilibrium with the addition of a reactant. AIL: Equilibrium in Nature Photography Students capture photos of natural equilibrium: Water cycle (evaporation ↔ condensation). Ecosystem balance (predator-prey). Present as a photo essay linking natural balance to chemical equilibrium. Skills Developed- Problem Solving, Team work</p>
<p style="text-align: center;">SEPTEMBER</p>	<p style="text-align: center;">REVISION FOR FIRST TERM EXAM</p>
<p style="text-align: center;">OCTOBER</p>	<p>Ch-7. Redox Reactions ELA/SEA: Redox in Daily Life, Case Study: Rusting of iron (oxidation of Fe), Photosynthesis & respiration (biological redox), Use of batteries (electrochemical redox). AIL : Redox Realities – Redox Reaction Collage Make a collage with cutouts or drawings of real-life redox processes: Rusting iron, Photosynthesis, Respiration, Electroplating. Label each with the oxidation and reduction half-reactions. Skills Developed- Reaction prediction, Problem solving</p>

NOVEMBER	<p>Ch-8 Organic Chemistry ELA/SEA: Molecular Modeling - Students will build 3D models of organic compounds using ball-and-stick models or molecular model kits. This will help them visualize structural isomerism, functional groups, and bond angles. AIL: Functional Group Hunt- To help students identify and relate functional groups (alcohols, aldehydes, ketones, carboxylic acids, esters, etc.) to common household items and real-world applications. Skills Developed- Creativity, Spatial visualization</p>
DECEMBER	<p>Ch-9 Hydrocarbon ELA/SEA: Hydrocarbons in Everyday Life – Fuel & Flame Test: To help students understand the properties of hydrocarbons (alkanes, alkenes, alkynes, aromatic compounds) and connect them to real-world uses like fuels and materials. AIL: Test for the presence of unsaturation (double or triple bond) in hydrocarbons by adding bromine water to various alkenes and alkynes. Skills Developed- Cognitive skill, Pattern recognition, Scientific skill.</p>
JANUARY – FEBRUARY	DOUBT CLASSES & REVISION FOR FINAL TERM EXAM

Discussion of Assignments will be taken parallel to the chapters every month.

MONTH/ SUBJECT	CHEMISTRY LAB ACTIVITIES
APRIL	<p>1. A. Basic Laboratory Techniques (a) Cutting glass tube and glass rod. (b) Bending a glass tube (c) Drawing out a glass jet Boring a cork. 2. Determination of pH of some solutions obtained from fruit juices, solution of known and varied concentrations of acids, bases and salts using pH paper or universal indicator.</p>
MAY	<p>3. Crystallisation of impure sample of any one of the following: Alum, Copper Sulphate</p>

JULY	4. Quantitative estimation : i) Using a chemical balance ii) Preparation of standard solution of oxalic acid. iii) Determination of strength of a given solution of sodium hydroxide by titrating it against a standard solution of oxalic acid/HCl.
AUGUST	Determination of one anion and one cation in a given salt Cation– NH ₄ ⁺ , Anion – (CO ₃) ⁻²
OCTOBER	Determination of one anion and one cation in a given salt Cation– Pb ⁺² , Anion –CH ₃ COO ⁻
MONTH/ SUBJECT	BIOLOGY (Code No. 044)
APRIL	Ch-14 Breathing and Exchange of Gases, Ch-15 Body Fluids and Their Circulation, Ch-16 Excretory Products and Their Elimination SEA/ELA: Analysis of Blood Reports Students will bring blood reports related to different diseases and analyze the effect of the same on blood components number and human body. AIL : “Heartbeat in Warli Art” Students depict the human circulatory pathway using Warli-style figures showing heart chambers, blood vessels and direction of blood flow with symbolic arrows. Skills Developed: Critical Thinking & Analytical Thinking
MAY	Ch-17 Locomotion and Movement, Ch-18 Neural Control and Coordination, Ch-19 Chemical Coordination and Integration SEA/ ELA: Case Study Analysis Students will identify and analyse the different disorders of endocrine glands based on symptoms provided by the teacher through flash cards . AIL: Bone and Joint Game Students will design functional models of bones and associated joints using cardboard &straws to show locomotory movement of human body. Skills Developed: Creativity & Decision Making

<p>JULY</p>	<p>Ch-1 The Living World, Ch-2 Biological Classification, Ch-3 Plant Kingdom, Ch-4 Animal Kingdom SEA/ ELA: Herbarium Preparation Students will collect, dry, paste plant specimens from the field on a herbarium sheet to make a plant library. AIL: “Reflect & Reveal Symmetry” Students draw Mirror-Art designs to show symmetry ,radial symmetry and bilateral symmetry in animals. Skills Developed: Creativity & Problem Solving</p>
<p>AUGUST</p>	<p>Ch-5 Morphology of Flowering Plants, Ch-6 Anatomy of Flowering Plants, Ch-7 Structural Organization In Animals SEA/ ELA: Field Visit Students will go to the field with the teacher to explore the different modifications of the vegetative parts of the plant. AIL: “Adaptation Across Habitats” Students design a dual-background poster(water + land) showing adaptations in skin, limbs, respiration and circulation. Skills Developed: Scientific Literacy & Research Skills</p>
<p>SEPTEMBER</p>	<p>REVISION FOR FIRST TERM EXAM</p>
<p>OCTOBER</p>	<p>Ch-8 Cell –The Unit of Life, Ch-9 Biomolecules, SEA/ ELA: Nutrition Label Audit Students will analyze different food labels for carbohydrates, fats and proteins to compare the cost v/s nutritional value. AIL: “Membrane Mosaic Maker” Students prepare a paper collage showing phospholipids, proteins, cholesterol and carbohydrates arranged artistically to depict the fluid mosaic model. Skills Developed: Creativity and Collaboration.</p>

NOVEMBER	<p>Ch-10 Cell Cycle and Cell Division, Ch-11 Photosynthesis In Higher Plants SEA/ ELA: “C3–C4–CAM Comparison Matrix” Students will prepare a structured comparison chart of C3, C4, and CAM pathways with diagrams, key features -including crop examples and climatic adaptation as well. AIL: “Cycle of Cells Rotator” Students design a rotating wheel with stages of cell cycle on the outer ring and events on the inner ring. Skills Developed: Scientific & Communication skills.</p>
DECEMBER	<p>Ch-12 Respiration In Higher Plants, Ch-13 Plant Growth and Development SEA/ ELA: Storyboard Growth Patterns Students will make a storyboard to explain the different stages of growth patterns and reasons of growth curves AIL :“Growth vs Development Visual Contrast” Students design a split-page poster contrasting growth(quantitative) and development(qualitative) using symbols and colors. Skills Developed: Observation & Analytical skills.</p>
JANUARY – FEBRUARY	DOUBT CLASSES & REVISION FOR FINAL TERM EXAM
Discussion of Assignments will be taken parallel to the chapters every month.	
MONTH/ SUBJECT	BIOLOGY LAB ACTIVITIES
APRIL	Spotting:1. To study different parts of compound microscope.
MAY	Spotting: 1. To study human skeleton and different types of joints with the help of virtual images/models only.
JULY	<p>Spotting:1. To study different specimens/models/slides and identification with reason-Bacteria, Oscillatoria, Spirogyra, Rhizopus , Mushroom, Liverwort, moss, fern, pine,one monocot and dicot and one lichen. 2. To study virtual specimens/slides/models and identifying features of- Hydra, Liverfluke, Ascaris , Leech, Earthworm, Prawn, Silkworm, Honeybee, Snail, Starfish, Shark, Rohu, Frog, Lizard, Pigeon and rabbit.</p>

<p>AUGUST</p>	<p>Experiment : 1. To study and describe local available common flowering plants from family Solanaceae including dissection and display of floral whorls ,anther and ovary to show number of chambers(floral formula with floral diagrams).</p> <p>Spotting: 1. To study permanent slides of dicot and monocot roots and stems(primary).</p> <p>2. To study different types of inflorescences (racemose and cymose) through live flowers specimens in garden.</p>
<p>OCTOBER</p>	<p>Experiment: 1. To test the presence of carbohydrates, fats and proteins in suitable plant and animal materials.</p>
<p>NOVEMBER</p>	<p>Experiment: 1. To separate different plant pigments through paper chromatography.</p> <p>Spotting: 1. To study mitosis in plant(onion root tip) and animal cells(grasshopper) through permanent slides.</p>
<p>DECEMBER</p>	<p>Experiment 1. To study the rate of respiration in flower buds/leaf tissue and germinating seeds.</p>
<p>MONTH/ SUBJECT</p>	<p>MATHEMATICS (Code No. 041)</p>
<p>APRIL</p>	<p>Ch-1 Sets, Ch-2 Relation and Functions ELA/SEA: Subsets & Power Set - Students will explore set theory and If $A=\{a,b,c\}$ then student will write all its subsets, they list every possible combination of its elements, including the empty set and the set itself. Student will be able to derive formula for powerset as well. AIL: Functions: Flip & Match- Students will match domain and range values to their corresponding function graphs using flip cards. Skills Developed: Critical Thinking, Problem solving and Mathematical Reasoning.</p>
<p>MAY</p>	<p>Ch-3 Trigonometric Functions, Ch-4 Complex Numbers ELA/SEA: Trigonometric Quiz - A quiz will be conducted to test Student's understanding of Trigonometric Functions. They will understand the domain, Range of T functions ,various Trigonometric Formulas and identities.</p>

MAY	<p>AIL:1.Quadrant Sign and graphs Activity student will draw a big circle on paper. Divide it into 4 quadrants and write signs of all trigonometric functions . And students will draw the graphs of each trigonometric function.</p> <p>2.Complex Numbers Visualization - Using Argand Plane to graphically represent complex numbers and their properties.</p> <p>Skills Developed: Graphical Understanding, Creative Thinking, Critical Thinking</p>
JULY	<p>Ch-5 Linear Inequalities, Ch-6 Permutations and Combinations SEA: Arrangements and Selections Around Us- Students will understand the difference between permutation (arrangement) and combination (selection) through real-life situations. students will be given different types of situations related to selection and arrangement. They will analyze them and will use permutation and combination concept there.</p> <p>AIL: Inequality quest - Students will research and present real life applications of linear programming such as business optimization, production planning & transportation and will solve them graphically.</p> <p>Skills Developed: Problem solving, Mathematical Reasoning and Graphical Understanding, Conceptual understanding,</p>
AUGUST	<p>Ch-8 Sequence and Series, Ch-11 Introduction to Three dimensional Geometry ELA/SEA:Math Billboard: Advertise a sequence - Students will design an advertisement for a product that follows in numerical pattern leading to geometrical and arithmetic growth of items. They will present the sequence behind their marketing idea.</p> <p>AIL:Exploring Space: Points, Lines, and Planes in 3D” students visualize 3-dimensional objects,understand coordinates of points in space,and represent lines and planes mathematically .Students begin by plotting points in three-dimensional space using coordinates (x, y, z). For example, they mark points A(2, 3, 4), B(1, 0, 2), and C(3, 2, 0) on a 3D graph sheet. Then they connect these points using lines to form line segments and observe the distance between points using the distance formula, Section formula etc.</p> <p>Skills Developed: Problem solving, Critical Thinking and Presentation Skills.</p>
SEPTEMBER	REVISION FOR FIRST TERM EXAM

<p>OCTOBER</p>	<p>Ch-10 Conic Sections, Ch-9 Straight lines ELA/SEA: Exploring Lines: Slopes, Intercepts, and Intersections Students will understand the concept of straight lines in 2D, their slopes, equations, and points of intersection using hands-on plotting and real-life examples. students investigate real-life applications by identifying straight lines in their surroundings, such as edges of windows, roads, or railway tracks. They are asked to calculate the equation of lines passing through two points of their choice in the classroom or school environment. AIL: Tracing the Curves: Circles, Ellipses, Parabolas, and Hyperbolas Students will understand different conic sections by plotting them, identifying their standard equations, and relating them to real-life applications. Skills Developed: Digital Literacy, Practical application, Geometry awareness</p>
<p>NOVEMBER</p>	<p>Ch-12 Limits and Derivatives, Ch- 13 Statistics SEA: Collecting, Organizing, and Analyzing Data-students will understand statistical concepts like data collection, tabulation, graphical representation, mean, median, mode and interpretation of data using real-life examples. Students will conduct a survey on any specific topic and calculate the measure of central tendency and dispersion for the collected data. ELA: Derivatives Puzzle Challenge - Students will unravel the mystery of limits and derivatives by solving puzzles and brain teasers. Skills Developed: Analytical Thinking</p>
<p>DECEMBER</p>	<p>Ch-14 Probability, Ch-7 Binomial Theorem ELA/SEA: Expanding and Exploring Binomials” Students will understand the Binomial Theorem, coefficients of terms, and its applications in expansions, patterns, pascal triangle and combinatorics. AIL: Fortune Telling - Students will use tools like cards dice marbles and coins to predict outcomes and calculate the probabilities of those outcomes. They will apply the concepts like sample space, operations on events independent events and explore how chances influence the predictions. Skills Developed: Analytical Thinking and Critical Thinking</p>

JANUARY – FEBRUARY	DOUBT CLASSES & REVISION FOR FINAL TERM EXAM
Discussion of Assignments will be taken parallel to the chapters every month.	

MONTH/ SUBJECT	MATHEMATICS LAB ACTIVITIES
APRIL	<ol style="list-style-type: none"> 1. To find the number of subsets of a given set and verify that if a set has n no. of elements then total no of subsets is 2^n. 2. To represent theoretic operations using Venn Diagrams
MAY	<ol style="list-style-type: none"> 1. To verify the relation between degree measure and radian measure of an angle. 2. To find the values of Sine and cosine functions in second, third, fourth quadrant using their given values in first quadrant.
JULY	To find the number the no. of ways in which three cards can be selected from 5 given cards
AUGUST	To Demonstrate that the Arithmetic mean of two numbers is always greater than Geometric mean
OCTOBER	<ol style="list-style-type: none"> 1. To construct a Pascal Triangle and to write binomial expansion for given positive integer. 2. To construct different types of conic sections
NOVEMBER	<ol style="list-style-type: none"> 1. Verification of Geometrical significance of Derivatives 2. To write sample space when a coin is tossed n times.
MONTH/ SUBJECT	COMPUTER SCIENCE (Code No. 083)
APRIL	<p>Ch-1 Computer System Overview, Ch-2 Data Representation SEA: Computer System Quiz Show - Students will participate in a Quizizz-based quiz featuring multiple-choice questions (MCQs) and an "Identify the Computer Component" round Skills Developed: Concept recall, analytical thinking, problem-solving</p>
MAY	<p>Ch-4 Introduction to Problem Solving, Ch-5 Getting Started with Python, Ch-6 Python Fundamentals SEA: Python Bingo - Students will play a Bingo game using Python keywords and concepts. The teacher will call out questions or definitions, and students will mark the correct terms on their Bingo cards. Skills Developed: Concept retention, critical thinking</p>

JULY	<p>Ch-7 Data Handling, Ch-8 Introduction to Python Modules SEA: Mystery Box: Identify the Data Type - Students will pick a chit from the mystery box containing a Python value (e.g., 42, "Python", 3.14). They will identify its data type and explain why it belongs to that category. . Skills Developed: Problem Solving, critical thinking</p>
AUGUST	<p>Ch-9 Flow of Control, Ch-10 String Manipulation SEA: Code Golf – Shortest Code Wins - Students will be given a problem, such as printing numbers from 1 to 10. They must write the shortest and most efficient Python code to solve it. The student with the most optimized solution wins. Skills Developed: Code Optimization, Logical Thinking</p>
SEPTEMBER	REVISION FOR FIRST TERM EXAM
OCTOBER	<p>Ch-11 List Manipulation, Ch-12 Tuples SEA: List Maker – Grocery Game - Students will create a grocery shopping list using Python lists. They will update, remove, and modify items based on given conditions (e.g., removing out-of-stock items). Finally, they will use loops to display the updated list. Skills Developed: Iteration & Loops, Problem-Solving</p>
NOVEMBER	<p>Ch-13 Dictionaries, Ch-14 Cyber Safety SEA: Cyber Safety PSA - Students will create a 30-60 second Public Service Announcement (PSA) video highlighting key cyber safety tips like strong passwords, phishing awareness, or social media safety. They can use acting, animation, or slides to convey their message effectively. Skills Developed: Digital Literacy, Collaboration & Research</p>
DECEMBER	<p>Ch-15 Society, Law and Ethics SEA: Ethics in Action - Students will work in groups to research and create presentations on key topics from Society, Law, and Ethics, such as cyberbullying, digital privacy, and plagiarism. They will present their findings, fostering awareness, teamwork, and communication skills. Skills Developed: Critical Thinking, Presentation Skills</p>
JANUARY – FEBRUARY	DOUBT CLASSES & REVISION FOR FINAL TERM EXAM

MONTH/ SUBJECT	COMPUTER SCIENCE PRACTICALS
MAY	Program to calculate BMI (Body Mass Index) of a person.
JULY	Program to obtain principal, rate and time from user and compute simple interest.
AUGUST	Program to generate 6 digit random secure Otp between 100000 to 999999.
SEPTEMBER	Program to input a number and check if it is a prime number.
OCTOBER	Program to check whether a given string is palindrome or not.
NOVEMBER	Program to compare two equal sized lists and print the first index where they differ
MONTH/ SUBJECT	PHYSICAL EDUCATION (Code No. 048)
APRIL	<p>Ch-1 Changing Trends and career in Physical Education SEA: Sport Entrepreneurship Students will create a mock business plan for a sports-related business (e.g., academy, gym, fitness tech). They will explore trends like e-sports, sports tourism, and wellness retreats. The plan should cover target audience, marketing strategies, and career opportunities (e.g., sports managers, event coordinators, marketing specialists).</p> <p>ELA: Khelo India Fitness Challenge The teacher will organize a fitness challenge with exercises like running, jumping, push-ups, sit-ups, and agility drills. Students will track their scores, set personal goals, and improve. This activity reflects the competitive spirit of the Khelo India program, which seeks to identify and develop young sports talent.</p> <p>Skills Developed: Understanding and knowledge of fitness activities and how one can make a career in the same</p>
MAY	<p>Ch - 2 Olympism, Ch - 3 Yoga SEA: Olympic Trivia Quiz Teacher will organize a trivia quiz focusing on the Olympics, covering topics such as historical moments, famous athletes, Olympic symbols, and host cities. Students will work in teams and answer multiple-choice questions or short answer questions.</p>

<p>MAY</p>	<p>ELA: Yoga Posture (Asanas), Breath Awareness and Pranayama Workshop Students will try yoga and mindfulness to explore mental health benefits and learn pranayama techniques. They'll research how yoga boosts athletic performance and focus, then present career options in yoga therapy, sports psychology, and wellness coaching. Skills Developed: Enhancing one's knowledge on Olympics and benefits of yoga, Mindfulness</p>
<p>JULY</p>	<p>Ch - 4 Physical Education and Sports for CWSN, Ch- 5 Physical Fitness, Health and Wellness SEA: Fitness and Health Quiz Competition Teacher will ask a series of questions related to fitness (e.g., "What is the best exercise for building leg strength?") and health (e.g., "Which vitamin is essential for bone health?"). ELA: Role Reversal (Experiencing a Disability) - Students will role-play a person with a disability (e.g., using headphones for hearing loss or a blindfold for visual impairment) and complete tasks like writing or moving around. Afterward, they'll reflect on the experience and discuss the importance of accessibility and accommodations. Skills Developed: Awareness about different disabilities and how to manage with people dealing with disabilities</p>
<p>AUGUST</p>	<p>Ch - 6 Test and Measurement in Sports, Ch-7 Fundamentals of Anatomy and Physiology in Sports SEA: Joint Dynamics in Action - Students will learn about the biomechanics of joints (e.g., knee, elbow, ankle) and demonstrate their range of motion in sports actions like sprinting or a tennis serve. They'll create diagrams or charts to show how joint movements impact performance. ELA: The Dynamic Drive Relay - Relay race will be organized, where each student will perform a specific sports movement (e.g., dribbling a ball, throwing a football, or sprinting). Emphasize will be on the body's kinetic chain (the sequence of movements from the feet to the hands or head) that plays a key role in each action. Students will demonstrate the coordination of different body parts for optimal performance. Skills Developed: Learning about different joint movements and how it helps in optimal performance .</p>
<p>SEPTEMBER</p>	<p>REVISION FOR FIRST TERM EXAM</p>

<p>OCTOBER</p>	<p>Ch-8 Fundamentals of Kinesiology and Biomechanics in Sports SEA: Bone Building Challenge - Students will design a model of a long bone (e.g., femur) and show its role in the skeletal structure, focusing on bone strength. They'll present how exercise and nutrition (calcium, vitamin D) strengthen bones and discuss bone growth and health. ELA: The Joint Action Challenge - Students will work in groups to identify primary joints involved in sports actions (e.g., running, swimming). They'll demonstrate joint movements and explain their range of motion, understanding how joints contribute to athletic performance. Skills Developed: Knowledge and understanding of nutrition, exercise on performance</p>
<p>NOVEMBER</p>	<p>Ch - 9 Psychology and Sports SEA: The Psychology of Success Quiz: GAME OF FOCUS Teacher will Prepare a quiz with questions related to sports psychology, psychology and adolscence problems (e.g., "What is the best technique to reduce anxiety before a game?" or "What is self-talk in sports psychology?"). Students will work in teams to answer questions, and after each answer, discuss the reasoning and psychology behind it. ELA: FitWorks: Tailor Your Routine - groups, students will design a training program for a sport (e.g., soccer, basketball) covering endurance, strength, flexibility, and skill. The program will include warm-ups, exercises, sets, reps, rest, and recovery. They will present and explain their choices. Skills Developed: Understanding of problems related to sports and figuring out ways to manage problems.</p>
<p>DECEMBER</p>	<p>Ch - 10 Training and Doping in Sports SEA: Training Method Pictionary: ACTION PACKED ART - In this variation of Pictionary, create cards with different types of training methods (e.g., interval training, strength training, flexibility exercises). One student draws the method on the board while their team guesses what it is. For every correct answer, they earn points.</p>

ACADEMIC CALENDAR 2026-27

April 2026

S	M	T	W	T	F	S
			1	2	3	4
<u>5</u>	6	7	8	9	10	11
<u>12</u>	13	14	15	16	17	18
<u>19</u>	20	21	22	23	24	25
<u>26</u>	27	28	29	30		

Important Days

- 07 : World Health Day
14 : Baisakhi / Dr. B.R. Ambedkar Jayanti
22 : Earth Day
29 : International Dance Day

May 2026

S	M	T	W	T	F	S
					1	2
<u>3</u>	4	5	6	7	8	9
<u>10</u>	11	12	13	14	15	16
<u>17</u>	18	19	20	21	22	23
<u>24</u>	25	26	27	28	29	30
<u>31</u>						

Important Days

- 01 : International Labour Day
07 : World Athletics Day
10 : Mother's Day
23 : Buddha Purnima
31 : World No Tobacco Day

June 2026

S	M	T	W	T	F	S
	1	2	3	4	5	6
<u>7</u>	8	9	10	11	12	13
<u>14</u>	15	16	17	18	19	20
<u>21</u>	22	23	24	25	26	27
<u>28</u>	29	30				

Important Days

- 05 : World Environment Day
07 : World Food Safety Day
21 : Father's Day
21 : Int. Day of Yoga / World Music Day

July 2026

S	M	T	W	T	F	S
			1	2	3	4
<u>5</u>	6	7	8	9	10	11
<u>12</u>	13	14	15	16	17	18
<u>19</u>	20	21	22	23	24	25
<u>26</u>	27	28	29	30	31	

Important Days

- 01 : National Doctor's Day
03 : International Plastic Bag Free Day
28 : World Nature Conservation Day
29 : International Tiger Day

August 2026

S	M	T	W	T	F	S
						1
<u>2</u>	3	4	5	6	7	8
<u>9</u>	10	11	12	13	14	15
<u>16</u>	17	18	19	20	21	22
<u>23</u>	24	25	26	27	28	29
<u>30</u>	31					

Important Days

- 15 : Independence Day
19 : World Photography Day
28 : Raksha Bandhan / World Sanskrit Day
29 : National Sports Day

September 2026

S	M	T	W	T	F	S
		1	2	3	4	5
<u>6</u>	7	8	9	10	11	12
<u>13</u>	14	15	16	17	18	19
<u>20</u>	21	22	23	24	25	26
<u>27</u>	28	29	30			

Important Days

- 04 : Janmashtami
05 : Teacher's Day
08 : International Literacy Day
14 : Hindi Diwas

ACADEMIC CALENDAR 2026-27

October 2026

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Important Days

- 02 : Gandhi Jayanti / Lal Bahadur Shastri Jayanti
 08 : Indian Air Force Day
 11 : International Day of the Girl Child
 20 : Dussehra
 31 : National Unity Day

November 2026

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Important Days

- 08 : Diwali
 11 : National Education Day
 14 : Children's Day
 24 : Guru Nanak Jayanti
 26 : Constitution Day

December 2026

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Important Days

- 02 : World Computer Literacy Day
 04 : Indian Navy Day
 14 : World Energy Conservation Day
 22 : National Mathematics Day
 25 : Christmas Day

January 2027

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Important Days

- 10 : World Hindi Day
 12 : National Youth Day
 14 : Makar Sankranti / Pongal
 15 : Indian Army Day
 23 : Parakram Diwas
 26 : Republic Day

February 2027

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

Important Days

- 11 : Basant Panchami
 21 : International Mother Language Day
 28 : National Science Day

March 2027

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Important Days

- 06 : Maha Shivaratri
 08 : International Women's Day
 10 : Id-ul-Fitr (Moon subject)
 22 : Holi
 22 : World Water Day
 26 : Good Friday

LIST OF HOLIDAYS (2026-27)

S. NO.	DATE	DAY	HOLIDAY
1	14.04.2026	Tuesday	Dr. B. R. Ambedkar Jayanti
2	27.05.2026	Wednesday	Id-Ul-Zuha (Bakrid)
3	15.08.2026	Saturday	Independence Day
4	28.08.2026	Friday	Raksha Bandhan
5	04.09.2026	Friday	Janmashtami
6	02.10.2026	Friday	Mahatma Gandhi Jayanti
7	20.10.2026	Tuesday	Dussehra
8	29.10.2026	Thursday	Karwa Chauth
9	01.11.2026	Sunday	Haryana Day
10	24.11.2026	Tuesday	Guru Nanak Jayanti
11	25.12.2026	Friday	Christmas
12	26.01.2027	Tuesday	Republic Day
13	06.03.2027	Saturday	Maha Shivratri
14	10.03.2027	Wednesday	ID-UL-Fitar
15	22.03.2027	Monday	Holi

SUMMER VACATION	DEEPAWALI BREAK
1st June'26 to 30th June'26	8th Nov' 26 – 11th Nov'26
WINTER BREAK	
1st Jan'27 – 15th Jan'27	

A LEARNER'S PROMISE

**I will learn with curiosity,
act with integrity,
respect others,
take responsibility,
and strive to be my best every day.**

