



**KALKA PUBLIC SCHOOL**

BPTP (PARKLANDS), SECTOR-76, FARIDABAD, HARYANA

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**CLASS : XI (SCIENCE-**

**Medical / NON Medical)**

**EXTENSIVE CURRICULUM**

**(2025-2026)**

## MONTH: APRIL

<u>Month &amp; No. of working days</u>	<u>Subject</u>	<u>Lesson No.</u>	<u>Lesson Name &amp; topic</u>	<u>Learning objective</u>	<u>Pedagogy ( Activities and resources)</u>	<u>Learning Outcome</u>	<u>Assessment</u>	<u>Life Skills</u>
	ENGLISH	Literature          Grammar	Hornbill: The Portrait of a Lady A Photograph (Poem)  Grammar: Editing, Rearranging jumbled words	Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.  The student is able to: (i) master the Mechanics of writing; the use of correct punctuation marks and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events, processes etc; (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write paragraphs, letters. (personal and official)	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to follow instructions and directions.  Make inferences and judgment.  Present various interpretations of the poem and prose creatively and critically.	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication , collaboration  Assignments, Worksheets, Tests	Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.  Students will be able to apply the grammar rules as per need in framing sentences and ideas while writing using the apt formats.

				simple, narrative pieces, reports, notices, messages, diary entries etc; (x) make notes and summarise; (xi) edit written material (xii) expand notes.				
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	# PHYSICS	CHAPTER 01	Physical world and units and Measurement	<p>students will be able to know about the physical quantities and their measurements.</p> <p>they will also be able to know about the dimensions of a physical quantities and their uses to</p> <ol style="list-style-type: none"> <li>(1) To derive the formulas.</li> <li>(2) To check the correctness of a given relation.</li> <li>(3) To convert a physical quantities from one system to other system.</li> </ol> <p>They will also come to know about the principle of homogeneity as well as significant figures and rounding off.</p>	<ol style="list-style-type: none"> <li>1)Recapitulation of the facts and information.</li> <li>2) Explanation of topics on board in a clear manner.</li> <li>3) using smart board and PPT and pdfs.</li> <li>4) rediscussion on the topics if required.</li> </ol> <p><b><u>Experiments-</u></b></p> <ol style="list-style-type: none"> <li>1) To measure the diameter of a small spherical /cylindrical body. using vernier calliper.</li> <li>2)To measure the depth of a given cylinder using vernier calliper.</li> </ol>	students are able to understand that what are units and their Dimensions as well as their uses in the mentioned topics.	<p>Assignment of Numericals on the basis of chapter discussed in the class.</p> <p>Ncert questions and numericals ,conceptual questions ,Mcqs , Assertion Reason and case study.</p>	Awareness, Analytical skills, problem solvings, observational skills, critical thinking, creativity, values Enthusiasm and balance fairness.
	CHEMISTRY	ch-1	some basic concepts of chemistry General introduction,	<p>Students will be able to:</p> <p>Understand the importance of chemistry in daily life.</p>	Interactive Lectures: Use visuals and real-life examples to explain	students should be able to:  Explain basic chemistry	Assignment, worksheets, tests mcqs, ncert	critical thinking, analytical thinking, collaboration, scientific temper

			<p>nature of matter, daltons atomic theory, concept of elements, mole concept, concentration terms, empirical and molecular formula, stoichiometry</p>	<p>Define and explain basic terms: matter, mass, atom, molecule, element, compound, etc.</p> <p>Differentiate between physical and chemical changes.</p> <p>Learn about the laws of chemical combination.</p> <p>Understand the concept of mole, molar mass, and stoichiometry.</p>	<p>concepts.</p> <p>Experiments/Demonstrations: Simple lab activities showing physical/chemical changes.</p> <p>Group Activities: Mole concept calculations, role play of atoms forming molecules.</p> <p>Quizzes/Games: Chemistry bingo or flashcards for terminology.</p>	<p>terms and apply them in real-world contexts.</p> <p>Use mole concept in chemical calculations.</p> <p>Solve problems related to percentage composition and empirical formulas.</p> <p>Relate chemical laws to everyday phenomena (e.g., conservation of mass in cooking).</p>		
	<b>BIOLOGY</b>	CH-1	<p><b>The Living World</b>          What is Living, Biodiversity, Three domains of life, Binomial Nomenclature</p>	<p>To make students understand and differentiate between Living and Non living organisms.          To classify different Living organism on the basis of hierarchy To familiarize with different Taxonomical Aids like Herbarium, botanical garden, Zoological museum and facilitate, identify and classify different.</p>	<p>Group discussion on how these aids are helpful for biology students</p> <p>Classifying organisms on the basis of hierarchy .</p>	<p>Students will analyze the importance of Zoological parks and museum in creating interest about wild life, providing education , furnishing recreation and conservation of endangered species. They will be able to evaluate the importance of</p>	<p>Group discussion, Classification</p>	<p>They will be able to evaluate the importance of botanical garden in educating public about country's plant wealth and stimulate people to grow more trees.</p>

						botanical gardens in educating the public about the country's plant wealth and stimulate people to grow more trees.		
	MATHS	Chapter -1	Sets theory Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Power set. Universal set. Venn diagrams. Union and Intersection of sets. Difference	Students will be able to learn / understand about 1. Sets & its types(finite and infinite sets, equal sets, subsets) 2. Types of intervals 3. The power set using the concepts of sub sets. 4. Venn diagrams. 5. Universal set, union and intersection of sets, difference of sets, complement of a set.	Class.Activity related to venn diagram on gender equality. PA1- To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is $2^n$ . PA2- To represent set theoretic operations using Venn diagrams	Students learned about 1. Sets & its types(finite and infinite sets, equal sets, Subsets) 2. Types of intervals 3. The power set using the concepts of sub sets. 4. Venn diagrams. 5. Types and operation on sets,	1. Multiple Choice Questions. 2. Give the Case study question related to topic. 3. Exercise which are given in textbook. 4. Question from Exemplar NCERT	Identifies relations between different sets

			<p>of sets. Complement of a set. Properties of Complement.</p>					
AI	<p>Part A- unit 1 Part B- Unit 1</p>	<p>PART A : Employability Skills</p> <p>· UNIT- 1 : Communication Skills</p> <p>PART B :Subject Skills</p> <p>UNIT – 1: - INTRODUCTION : ARTIFICIAL INTELLIGENCE</p>	<p>Developing active listening, improving verbal and nonverbal communication</p> <p>Understanding AI's impact, critically evaluating its use, and developing skills for responsible and ethical application.</p>	<p>Classroom discussion</p> <p>Powerpoint presentations</p> <p>Visual aids.</p>	<p>It encompasses developing fluency and accuracy in various communication contexts.</p> <p>Allowing learners to critically evaluate their understanding and identify areas for improvement.</p>	<p>Draw a neat Diagram of Elements of Communication.</p>		

			FOR EVERYONE					
	<b>PHYSICAL EDUCATION</b>		On ground classes Played Badminton Cricket Football	Explanation of rules and regulations of the game. Learning rules by playing and applying skills and techniques taught.	Play Friendly games Explanation Practicing again and again	Students will be able to play the game by rules and regulations. Have knowledge of skills and techniques.	Played friendly matches	Students will be able to play games with full flash rules and regulations with proper technique.

## **MONTH: MAY**

<u>Month &amp; No. of working days</u>	<u>Subject</u>	<u>Lesson No.</u>	<u>Lesson Name &amp; topic</u>	<u>Learning objective</u>	<u>Pedagogy ( Activities and resources)</u>	<u>Learning Outcome</u>	<u>Assessment</u>	<u>Life Skills</u>
	<b>ENGLISH</b>	Literature	Hornbill: The Portrait of a Lady A Photograph (Poem) We're Not Afraid To Die...if We Can All Be Together Snapshots- : The Summer of the Beautiful White Horse Writing: Article Writing, Notice.	Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.  The student is able to: (i) master the Mechanics of writing; the use of correct punctuation marks and capital letters; (ii) spell words	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to follow instructions and directions.  Make inferences and judgment.  Present various interpretations of the poem and prose creatively and critically.	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication , collaboration  Assignments, Worksheets, Tests	Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.  Students will be able to apply the grammar rules as per need in framing sentences and ideas while writing using the apt formats.



Grammar

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correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events, processes etc; (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write paragraphs, letters. (personal and official) simple, narrative pieces, reports, notices, messages, diary entries etc; (x) make notes and summarise; (xi) edit written material (xii)

				expand notes.				
	<b>CHEMISTRY</b>	ch-2	structure of atom discoveries of subatomic particle, isotope, isobar, atomic models, dual nature of light, quantum numbers, shapes of orbitals, electronic configuration, stability of orbitals	<p>Students will be able to:</p> <p>Understand the historical development of atomic models (Dalton, Thomson, Rutherford, Bohr).</p> <p>Describe the structure of an atom: electrons, protons, and neutrons.</p> <p>Understand concepts like atomic number, mass number, isotopes, and isobars.</p> <p>Explain the arrangement of electrons in shells (Bohr's model) and electronic configuration.</p>	<p>Storytelling Approach: Explain evolution of atomic models like a story to build interest.</p> <p>3D Models/Charts: Use atomic models to show structure visually.</p> <p>Simulations &amp; Animations: Demonstrate atomic structure and electronic configuration dynamically.</p> <p>Hands-on Activities: Create atom models using beads, balls, or charts.</p>	<p>By the end of the lesson, students should be able to:</p> <p>Explain atomic models and how they evolved over time.</p> <p>Identify subatomic particles and their properties.</p> <p>Calculate atomic number and mass number.</p> <p>Write electronic configuration of elements (up to atomic number 20).</p> <p>Understand the significance of valency in bonding.</p>	Assignments, Worksheets, Tests	<p>Problem-Solving : Applying atomic concepts to solve chemistry problems.</p> <p>Curiosity and Inquiry: Asking questions about the nature of matter.</p> <p>Visual-Spatial Skills: Understanding structure through models and diagrams.</p> <p>Communication: Explaining atomic concepts using scientific vocabulary.</p>

				Apply the concept of valency and predict chemical behavior of elements.				
	<b>BIOLOGY</b>	CH- 2	<b>Biological Classification</b> Two Kingdom, Five Kingdom classification, details of Kingdom Monera, Protista and Fungi.	identification, classification Nomenclature, Taxonomy Explain and comprehend the characteristic features of different kingdom (monera, protista, fungi) with examples, their physiology and their connectivity to different kingdom.	PPT Screen Sharing Explanation Discussion Videos	Students will be able to develop team work, cooperation, concern, empathy by studying diversity in living organisms. Inculcate the value of usefulness by studying the economic importance of microbes and different organisms.	1.To study different parts of microscope and its working . 2.To observe different slides of the kingdom monera and protista and comment on it. 3.To observe different specimens and slides of kingdom Fungi and comment on it.	Develop curiosity and eagerness to find the missing links between organisms of same kingdom and connecting links between organisms of different kingdom.
	<b>maths</b>	Chapter -2	<b>Relations and functions</b> Ordered Pair, Cartesian Products of Sets, Number	Students will be able to learn / understand about 1. Cartesian products of sets 2. ordered pair 3. Image Relations	Decision making Appreciate different approaches (representation) Observation Discussion Class.Activity related to venn diagram on gender equality. PA1- To find the number of subsets of a given set and verify that if a set	Students learned about Cartesian products of sets(ordered pair) ,Relations 8. Functions & its types , Domain ,range and image of Relations as well as	1. Multiple Choice Questions. 2.Give the Case study question related to topic. 3.Exercise which are given in textbook.	Logical thinking ,critical thinking will be developed

			<p>of elements in the Cartesian Products of Finite Sets, Cartesian Products of the Sets with itself, Definition of Relation, Pictorial diagrams, domain, codomains and range of a relation, Function, Pictorial diagrams, domain, codomains and range of a function,</p>	<p>4. Domain &amp; range of Relations 5. Functions &amp; its types 6. Domain &amp; range of functions</p>	<p>has n number of elements, then the total number of subsets is <math>2^n</math>. PA2- To represent set theoretic operations using Venn diagrams  Q4 To distinguish between a Relation and a Function</p>	<p>functions, Analytical thinking (through the activity 1), Visualization (through the activity 2) systematic approach (activity)</p>	<p>4. Question from Exemplar NCERT</p>	
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			Real Valued functions with their graphs, sum, difference, product and quotient of functions.					
	AI	Unit 3	<p>PART A : Employability Skills</p> <ul style="list-style-type: none"> <li>UNIT- 3: Information and Communication Technology Skills</li> <li>UNIT- 5: Green Skills</li> </ul>	ICT skills focus on developing practical abilities for using technology effectively, including understanding hardware and software, using digital resources, and applying digital skills to solve problems and communicate.	<p>Classroom discussion</p> <p>Powerpoint presentations</p> <p>Visual aids.</p>	Enable learners to access, create, and communicate information effectively, fostering critical thinking, collaboration, and digital literacy.	<p>Make an attractive Chart on various Peripheral Devices.</p> <p>Create an email Account in Gmail and perform the various operations; compose, send, sending attachments etc.</p>	enhanced communication, problem-solving, critical thinking, and digital literacy

	<b>PHYSICAL EDUCATION</b>		On ground classes Played Badminton Cricket Football	Explanation of rules and regulations of the game. Learning rules by playing and applying skills and techniques taught.	Play Friendly games Explanation Practicing again and again	Students will be able to play the game by rules and regulations. Have knowledge of skills and techniques.	Played friendly matches	Students will be able to play games with full flash rules and regulations with proper technique.
	# PHYSICS	chapter - 03						

## MONTH: JUNE

<u>Month &amp; No. of working days</u>	<u>Subject</u>	<u>Lesson No.</u>	<u>Lesson Name &amp; topic</u>	<u>Learning objective</u>	<u>Pedagogy ( Activities and resources)</u>	<u>Learning Outcome</u>	<u>Assessment</u>	<u>Life Skills</u>		
	<b>ENGLISH</b>	Literature	Hornbill: The Portrait of a Lady A Photograph (Poem) We're Not Afraid To Die...i	Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.  The student	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to follow instructions and directions  Make inferences and judgment.	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking ,	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication	Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.  Students will be able to apply the grammar rules as per need in framing sentences and ideas	

		<p>Writing</p> <p>Grammar</p>	<p>f We Can All Be Together Snaps hots:- The Summ er of the Beauti ful White Horse The Addre ss Writin g: Article Writin g, Speec h Writin g, Notice . Gram mar: Editin g, Rearra nging jumbl ed</p>	<p>is able to: (i) master the Mechanics of writing; the use of correct punctuation marks and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events, processes etc; (viii) write description of people,</p>		<p>Present various interpretations of the poem and prose creatively and critically.</p>	<p>communication , collaboration</p> <p>Assignm ents, Workshe ets, Tests</p>	<p>ation , collaborati on</p> <p>Assignme nts, Worksheet s, Tests</p>	<p>while writing using the apt formats.</p>
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	<b>CHEMISTRY</b>	ch-3	classification of elements and periodicity in properties	<p>Understand the historical development of the Periodic Table (Dobereiner, Newlands, Mendeleev, Moseley).</p> <p>Explain the Modern Periodic Law and the Modern Periodic Table.</p> <p>Identify groups, periods, and blocks in the Periodic Table.</p> <p>Analyze periodic trends in properties such as:</p> <p>Atomic and ionic radii</p> <p>Ionization enthalpy</p> <p>Electron</p>	<p>Interactive Discussion: Explore the evolution of the periodic table with historical context.</p> <p>Visual Aids: Use charts/models of the modern periodic table to explain trends.</p> <p>Activity-Based Learning: Group students to observe trends in a set of elements and present findings.</p>	<p>By the end of this chapter, students will be able to:</p> <p>Explain how elements are classified and the basis of periodicity.</p> <p>Interpret trends in physical and chemical properties across the Periodic Table.</p> <p>Predict the nature of elements (metallic or non-metallic) based on position.</p> <p>Use periodic trends to compare and predict properties of unknown elements.</p> <p>Appreciate the logic behind element arrangement</p>	assignment, worksheet, class test, reasoning questions			<p>4. Life Skills Developed: Analytical Thinking: Interpreting data from the Periodic Table and drawing conclusions.</p> <p>Problem-Solving: Applying concepts to predict element properties.</p> <p>Scientific Temper: Understanding the evolution of scientific theories through evidence.</p> <p>Observation &amp; Reasoning: Recognizing patterns and trends in the natural world.</p> <p>Collaboration: Engaging in group activities and discussions.</p>
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				<p>gain enthalpy</p> <p>Electronegativity</p> <p>Valency</p> <p>Relate the periodicity in properties to electronic configurations of elements.</p>		and its practical utility in understanding chemical behavior.				
	<b>BIOLOGY</b>									
	<b>MATHS</b>									
	<b>AI</b>				<p>Classroom discussion</p> <p>Powerpoint presentations</p> <p>Visual aids.</p>					

	PHYSICAL EDUCATION									
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**MONTH: JULY**

Month & No. of working days	Subject	Lesson No.	Lesson Name & topic	Learning objective	Pedagogy (Activities and resources)	Learning Outcome	Assessment	Life Skills		
	ENGLISH	Lit era ture	Hornbill: The Portrait of a Lady A Photograph (Poem) We're Not Afraid To Die...if We Can All Be Together Snapshots:- The Summer of the Beautiful White Horse The Address Writing: Article Writing, Speech Writing, Notice. Grammar: Editing, Rearranging jumbled	Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.  The student is able to: (i) master the Mechanics of writing; the use of correct punctuation marks	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to follow instructions and directions  Make inferences and judgment  Present various interpretations of the poem and prose creatively and critically.	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication , collaboration  Assignments , Worksheets, Tests	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication , collaboration	Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.  Students will be able to apply the grammar rules as per need in framing sentences and ideas while writing using the apt formats.	

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and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events, processes etc; (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write

Assign  
ments,  
Works  
heets,  
Tests

				pragraphs, letters. (personal and official) simple, narrative pieces, reports, notices, messages, diary entries etc; (x) make notes and summarise ; (xi) edit written material (xii) expand notes.					
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	<p><b>PHYSICS</b></p>	<p>Unit I: Physical World and Measurement</p> <p>Chapter–1: Chapter–2:</p>	<p>Physical World</p> <p>Units and Measurements</p>	<p>The students/learner – explains that the disciplinary approach of Physics is a transition from general sciences. - explains the fundamental forces in nature</p>	<p><b>Experiments 1.</b> To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.</p> <p>2. To measure diameter of a given wire and thickness of a given sheet using screw gauge.</p> <p>3. To determine volume of an irregular lamina using screw gauge.</p> <p><b>Activities 1.</b> To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.</p> <p>2. To determine mass of a given body using a metre scale by principle of moments.</p>	<p>students will be able to explain the nature of fundamental laws such as conservation laws, etc. -explains the need of accuracy, precision, errors and uncertainties in measurement; and classify errors</p>	<p><a href="#">11-Physics-NcertSolutions-chapter-2-exercises-additional-TA.pdf</a></p> <p><a href="https://drive.google.com/file/d/0B8hXbvn1ab-BR1M1NkxaMW1WWkE/view?resourcekey=0-IS7exjpAm-KYbUWr_KO3IA">https://drive.google.com/file/d/0B8hXbvn1ab-BR1M1NkxaMW1WWkE/view?resourcekey=0-IS7exjpAm-KYbUWr_KO3IA</a></p>			
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	CHEMISTRY	ch-4	chemical bonding and molecular structure	<p>Valence electrons, ionic bond, covalent bond, bond parameter s, 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</p>	<p>Understand the concept of a chemical bond and why atoms bond.</p> <p>Differentiate between types of chemical bonds: ionic, covalent, and metallic.</p> <p>Describe the Lewis dot structure and VSEPR theory for predicting molecular shapes.</p> <p>Explain properties of compounds based on bonding and structure.</p> <p>Relate bonding type to physical properties like melting point, solubility, and conductivity.</p>	<p>enquiry-Bas ed Learning: Pose questions like “Why do atoms bond?” to stimulate curiosity.</p> <p>Visualization Tools: Use models or animations to show bond formation and molecular shapes.</p> <p>Collaborative Learning: Group activities to draw Lewis structures or simulate bonding.</p> <p>Experiential Learning: Lab experiments (e.g., testing conductivity of salt vs sugar solutions).</p> <p>Discussion &amp;</p>	<p>students will be able to learn about the different types of bonding and interactions that exist in compounds.</p>	<p>collabo rative thinkin g, critical thinkin g, analyti cal thinkin g, experie ntial learnin g</p>		
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				<p>molecules , molecular orbital theory of homonuclear diatomic molecules (qualitative idea only), Hydrogen bond.</p>		<p>Reflection: Encourage students to relate bonding to real-world</p>				
	<b>BIOLOGY</b>	CH- 3	<b>Plant Kingdom</b>	<p>Classify and describe plant kingdom under different divisions—thalophyta, bryophyta, pteridophyta, gymnosperm and angiosperm.</p>	<p>To emphasize on development of observational, analytical skills and inculcating values like Responsibility, Coordination and Collaboration, Creativity, Awareness, Concerns.</p>	<p>The students will be able to comprehend and relate how cryptogams and phanerogams plants differ in their life cycle.</p>	<p>To observe the different specimens of plant kingdom and comment on it.</p>	<p>. Develop sensitivity, concern and empathy towards nature by studying flora and fauna.</p>		
		CH- 4	<b>Animal Kingdom</b>	<p>concept and classification of</p>	<p>Real life examples PPT Screen Sharing</p>	<p>They will understand the concept and classify Animal kingdom under different phylum</p>	<p>To observe the different specimens of animal kingdom and comment on it.</p>	<p>They will explore their critical thinking by Connecting the lower</p>		
							2.Spotting-			



				Animal kingdom under different phylum porifera, cnidaria, ctenophore, platyhelminthes, Aschelminthes, annelid, mollusca, arthropoda, echinodermata, chordata.	Explanation Discussion Demonstration	porifera, cnidaria, ctenophore, platyhelminthes, aschelminthes, annelid, mollusca, arthropoda, echinodermata, chordata. They will explore their critical thinking by Connecting the lower forms of organisms to the higher forms which led to evolution.	To identify the given organism, classify, draw and write its significant characteristics.	forms of organisms to the higher forms which led to evolution.		
	MATHS	Chapter -3	<b>Trigonometric Functions:</b> Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to	Students will be able to learn / understand about 1. Measure of Angles (Degree measure & Radian measure) 2. Relation between degree and radian	Relates earlier learnt concept of trigonometric ratios to functions and evolves the idea of trigonometric functions HOTS, COMPETENCY BASED LEARNING, INDUCTIVE LEARNING, Deductive learning	Students learned about 1. Measure of Angles (Degree measure & Radian measure) and its relation 2. Trigonometric Functions & its Sign 3. Domain	* Unit circle will be drawn then students will be asked to calculate all T-ratio for different angles i.e., 90°, 180°, 270° -etc. PA3- To plot the graphs of $\sin x$ , $\sin 2x$ , $2\sin x$ , using same coordinate axes.	Students will attain 1. Application of acquired knowledge to find distance between any two objects. 2. Problem solving & Critical thinking in sum	1. Multiple Choice Questions. 2. Give the Case study question related to topic. 3. Exercise which are given in textbook. 4. Question from Exemplar NCERT	logical thinking, critical thinking, will be developed

		<p>another.</p> <p>Definition of trigonometric functions with the help of unit circle.</p> <p>Truth of the identity <math>\sin^2x + \cos^2x = 1</math>, for all <math>x</math>.</p> <p>Signs of trigonometric functions.</p> <p>Domain and range of trigonometric functions and their graphs.</p> <p>Expressing <math>\sin(x \pm y)</math> and <math>\cos(x \pm y)</math> in terms of <math>\sin x</math>, <math>\sin y</math>, <math>\cos x</math> &amp; <math>\cos y</math> and their simple applications.</p> <p>Deducing</p>	<p>3. Trigonometric Functions &amp; its Sign</p> <p>4. Domain and range of trigonometric functions</p> <p>5. Trigonometric Functions of Sum and Difference of Two Angles</p> <p>6. Trigonometric Equations and solutions</p> <p>7. Relation between sides and angle of any triangle</p>		<p>and range of trigonometric functions</p> <p>4. Trigonometric Functions of Sum and Difference of Two Angles</p> <p>5. Solution Trigonometric Equations and triangle</p> <p>6. Application of trigonometric function will</p> <p>Develop Critical thinking and problem solving skill</p>	<p>worksheets, assignments</p>	<p>angle properties</p> <p>3. Analyzing a musical tone</p>		
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 following:  
 $\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}$ ,  
 $\cot(x \pm y) = \frac{\cot x \cot y \mp 1}{\cot y \pm \cot x}$ ,  
 $\sin \alpha \pm \sin \beta = 2 \sin \frac{1}{2}(\alpha \pm \beta) \cos \frac{1}{2}(\alpha \mp \beta)$   
 $\cos \alpha + \cos \beta = 2 \cos \frac{1}{2}(\alpha + \beta) \cos \frac{1}{2}(\alpha - \beta)$   
 $\cos \alpha - \cos \beta = -2 \sin \frac{1}{2}(\alpha + \beta) \sin \frac{1}{2}(\alpha - \beta)$   
 Identities  
 related to  
 $\sin 2x$ ,  $\cos 2x$ ,  
 $\tan 2x$ ,  $\sin 3x$ ,  
 $\cos 3x$  and  
 $\tan 3x$ .  
 General  
 solution of  
 trigonometri  
 c equations  
 of the type

$\sin y = \sin a$ ,  
 $\cos y = \cos a$   
 and  $\tan y = \tan a$

**Complex Numbers and Quadratic Equations:**

Need for complex numbers, especially  $i = \sqrt{-1}$ , to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane and polar representati

Students will be able to learn / understand about 1. meaning and importance of Complex Number 2. Algebra of Complex Numbers, Modulus , Conjugate and multiplicati ve inverse of a Complex Number. 3. Represent ation of complex number on

Demonstrates deductive thinking by using technique of mathematical induction for establishing generalized mathematical statements. Extends the idea of real numbers to a larger system of complex numbers.

Students learned about 1. Algebra of Comple xNumbers including multiplicat ive inverse of the non-zero complex number and Represent ation of complex number on argand plane. 2. argument (or amplitude

1. Multiple Choice Questions. 2. Give the Case study question related to topic. 3. Exercise which are given in textbook. 4. Question from Exemplar NCERT  
 PT 1 EXAM

Students will attain following behavioural objectives 1. Decision making 2. Reasoning 3 . Appreciate different approaches of representation

			<p>on of complex numbers. Statement of Fundamental Theorem of Algebra, solution of quadratic equations (with real coefficients) in the complex number system. Square root of a complex number</p>	<p>Argand Plane and argument (or amplitude) of a Complex Number. 4. Square root of a Complex Number</p>		<p>) of a complex Number  3. Polar Representation of a Complex Number  4. Square root of a Complex Number  5. Reasoning  6. Imagination</p>				
	AI	Unit 2	<p>PART B : Subject Skills  UNIT – 2:  UNLOCKING YOUR FUTURE IN AI</p>	<p>Identify the common jobs in the field of AI and respective responsibilities</p>	<p>Lecture method  Powerpoint slides  Visual aids</p>	<p>Explore resources for further learning and skill development in the field of AI</p>		<p>Developing these skills will empower them to drive innovation and adapt to technology</p>		

								ical advance ments		
	<b>PHYSICAL EDUCATION</b>	Unit 1	Changing Trends and Careers in Physical Education	Students will be able to understand the changing trends of physical education. Also have knowledge about the career option in physical education with scope and success in it.	Explanation with examples Description Cross questioning Learning Communication.	Students will be able to define physical education and will be able to differentiate between the career options in physical education and the success of it.	Cross questioning Asking for explaining things with examples.	Will be able to understand the career options in physical education.		
		Unit 2	Olympic Values Education	Students will be able to understand and know more about Olympic Motto, Oath, Flag	Explanation with examples Description Cross questioning Learning Communication.	Students have understood the importance of the Olympic games and the format of playing games in it. They have	Cross questioning and asking form students about the explanation of chapters.	Will be able to understand the Format of the Olympic games. (Its symbol, Oath, Motto, Flag and Anthem)		

				and Symbols. They will get knowledge of Olympic value education. (Joy of effort, Fair play, Respect for others etc.		understood the importance of taking oath, Flag hosting and Motto of playing it.				
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**MONTH: AUGUST**

Month & No. of working days	Subject	Lesson No.	Lesson Name & topic	Learning objective	Pedagogy (Activities and resources)	Learning Outcome	Assessment	Life Skills
	ENGLISH	Literature	Hornbill: Discovering Tut: the Saga Continues The Laburnum Top (Poem) Landscape of the Soul Snapshots: Albert Einstein at School Writing: Formal Letter, Report,	Students will be able to identify, analyze, interpret and describe the critical ideas, values and themes that appear in the literary prose and poems.	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to follow instructions and directions.  Make inferences and judgment.  Present various interpretations of the poem and prose creatively and critically.	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking, communication, collaboration  Assignment	Students will be able to Critically analyze the prose and poetry. Appreciate the beauty, rhyme, style, genre of the poem and prose.  Students will be able to apply the grammar rules as per need in
		Writing	Grammar: Omission, Transformation of sentences	The student is able to: (i) master the Mechanics of writing; the use of correct				
		Grammar						

		mar		punctuation marks and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events, processes etc; (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write paragraphs, letters. (personal and official) simple, narrative pieces, reports, notices, messages, diary entries etc; (x) make notes and summarise; (xi) edit written			ts, Worksheets, Tests	framing sentences and ideas while writing using the apt formats.
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				material (xii) expand notes.				
PHYSICS	Chapter-2:	Units and Measurements Continue...	Students will differentiate between distance and displacement; speed and velocity; rectilinear and curvilinear motions; kinematics and dynamics; inertial	<b>Experiments</b> 1. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.  2. To measure diameter of a given wire and thickness of a given sheet using screw gauge.  3. To determine volume of an irregular lamina using screw gauge.  4. To determine radius of curvature of a given spherical surface by a spherometer	Students will be able to communicate the findings and conclusions effectively. Applies concepts of physics in daily life while making decisions and solving problems.  students will be able to find range max. height and time of flight of projectile. -Dissection and application of circular motions.  Students will be able to apply concepts of physics in daily life while making decisions and solving problems	<a href="https://drive.google.com/file/d/0B8hXbvn1ab-BUzJDcFpnRWFMUnM/view?resourcekey=0-NHISRSECCQBvQIWqAncS5w">https://drive.google.com/file/d/0B8hXbvn1ab-BUzJDcFpnRWFMUnM/view?resourcekey=0-NHISRSECCQBvQIWqAncS5w</a>		
	Unit II: Kinematics Chapter-3:	Motion in a Straight Line	The learner can understand -inertial frames of references; average, relative, and instantaneous velocity and speed etc. – derives (graphically) kinematic equations for --uniformly accelerated motion –					<a href="https://drive.google.com/file/d/0B8hXbvn1ab-BaUNRY0haX29xV00/view?resourcekey=0-ToUGuYPRFWjbdz_vF6y0aQ">https://drive.google.com/file/d/0B8hXbvn1ab-BaUNRY0haX29xV00/view?resourcekey=0-ToUGuYPRFWjbdz_vF6y0aQ</a>
	Chapter-4:	Motion in a Plane	Students will communicate the findings and conclusions effectively. – applies concepts of physics in daily life while making decisions and					

				<p>solving problems. -Can understand operations (addition subtraction and multiplication of vectors.</p>			<a href="https://www.khanacademy.org/a/vn1ab-Bakdnb1FGMEJqNDA/view?resourcekey=0-MxIP9eOLgeaOTMOXWmBVgQ">vn1ab-Bakdnb1FGMEJqNDA/view?resourcekey=0-MxIP9eOLgeaOTMOXWmBVgQ</a>	
	<b>CHEMISTRY</b>	ch-5	<p>Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics</p>	<p>Understand and explain the basic laws of thermodynamics.</p> <p>Define and describe key terms: system, surroundings, entropy, enthalpy, internal energy, etc.</p> <p>Apply thermodynamic principles to solve real-life problems and engineering scenarios.</p> <p>Analyze</p>	<p>Inquiry-Based Learning: Encourage questioning, prediction, and investigation (e.g., What happens when...?)</p> <p>Project-Based Learning: Build or analyze systems like solar ovens, refrigerators, or engines.</p> <p>Interdisciplinary Approach: Link with chemistry, engineering, and environmental science.</p>	<p>Understand and apply the laws of thermodynamics.</p> <p>Analyze and solve heat engine and entropy problems.</p> <p>Evaluate efficiency and sustainability of thermal systems.</p> <p>Affective:</p> <p>Develop appreciation for energy conservation.</p> <p>Foster curiosity about natural and engineered thermal systems.</p> <p>Psychomotor:</p>	<p>assignment s worksheet Ncert questions reasoning questions numericals</p>	<p>Understand and apply the laws of thermodynamics.</p> <p>Analyze and solve heat engine and entropy problems.</p> <p>Evaluate efficiency and sustainability of thermal systems.</p> <p>Affective:</p> <p>Develop appreciation for energy conservation.</p> <p>Foster curiosity about natural and engineered thermal systems.</p>

			<p>-internal energy and enthalpy, heat capacity and specific heat, measurement of <math>\Delta U</math> and <math>\Delta H</math>, Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization,</p>	<p>processes such as heat engines, refrigerators, and energy conversions</p> <p>Conceptual Understanding: Use real-life analogies (e.g., heat transfer = cooking, engine cycles = car engines)</p>	<p>Collaborative Learning: Group discussions, problem-solving sessions, and peer teaching.</p>	<p>Conduct lab experiments (e.g., calorimetry, heat transfer).</p> <p>Use thermodynamic instruments (e.g., thermometer, pressure gauge).</p>	<p>Psychomotor:</p> <p>Conduct lab experiments (e.g., calorimetry, heat transfer).</p> <p>Use thermodynamic instruments (e.g., thermometer, pressure gauge).</p>
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			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 thermodyn					
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			amics (brief introductio n)					
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	BIOLOGY	CH - 5	<b>Morphology of Flowering Plants</b>  General characters of root stem leaves and flowers Modification of root, stem, leaves, inflorescence Flower its parts Taxonomical description of Flower Fruit and its Classification Seeds and its types Taxonomical description of some Important Families like Solanaceae, Fabaceae, Liliaceae.	To make the students understand about various morphological features of plants and their modified parts like Root, Stem, Leaf, Inflorescence, Flower To identify different types of inflorescence, flower, leaves according to the acquired knowledge.	PPT Screen Sharing Explanation Demonstration Discussion	The students will understand the different types of modification in root, stem and leaves. They would be able to apply the knowledge of different technical aspects of flower in identifying the different families by drawing the floral parts and floral formula.	To study and display different types of flower and make its floral diagram and formula .  Calculate the age of the trees Design Experimental setups and undergo hypothesis testing; Apply the different Microscopic techniques in observing the anatomy of leaf, stem, root.	
		CH - 6	<b>Anatomy of Flowering Plants</b>  Meristematic tissue Permanent Tissue Tissue System Primary Structure of Root Internal structure of monocot and dicot root, leaf and stem Secondary growth in Stem	Anatomy of Dicotyledons and Monocotyledons roots, stem and leaves concept of Secondary Growth and its mechanism.  different Plant Life Cycles and Alternation of Generations.	PPT Screen Sharing Explanation Demonstration Discussion	The students will understand the internal structure of root and stem of dicot and monocot plants. They will evaluate the role of vascular bundles in the secondary growth Learners will be able to calculate the age of trees by counting the annual rings .	Development of skills like observational, diagrammatical and experimental and inculcating values like Creativity (while drawing the diagram), Awareness by identifying the location of different tissues of plant.	

	MATHS	Chapter -4	<p><b>Principle of Mathematical Induction:</b> Process of the proof by induction, motivating the application of the method by looking at natural numbers as the least inductive subset of real numbers. The principle of mathematical induction</p>	<p>Students will be able to learn / understand about</p> <ol style="list-style-type: none"> <li>1. Inductive and deductive method of proof</li> <li>2. Method of proof by mathematical induction</li> <li>3. Generalization of proof from 1 to <math>n + 1</math></li> </ol>	<p>Demonstrates deductive thinking by using technique of mathematical induction for establishing generalized mathematical statements. Extends the idea of real numbers to a larger system of complex numbers.</p>	<p>Students learned about</p> <ol style="list-style-type: none"> <li>1. Mathematical induction to prove a result</li> <li>2. Reasoning &amp; Analysing by the activity of falling pile</li> </ol>	<ol style="list-style-type: none"> <li>1. Multiple Choice Questions.</li> <li>2. Give the Case study question related to topic.</li> <li>3. Exercise which are given in textbook</li> </ol>	<p>Students will attain following behavioural objectives</p> <ol style="list-style-type: none"> <li>1. Reasoning</li> <li>2. Analysing</li> </ol>

and simple applications. Complex Numbers

Students will be able to learn / understand about 1. Sequences and Series, 2. Arithmetic Progression (A.P.) 3. nth term and sum of n terms of A.P. 4. Geometric Progression (G.P.) 5. A.M. ,G.M.

Students learned about 1. Sequences and Series, 2. Arithmetic Progression (A.P.) 3. nth term and sum of n terms of A.P. 4. Geometric Progression (G.P.) 5. A.M.& G.M. and the relation between them

Identify the general term (rules/characteristics) of a sequence which further enable them to become systematic in problem solving of real life. 2. make a definite rule to be followed in particular situations/ circumstances by their previous experiences or trends set by the



							predecessors.	
	AI	Unit 2 Unit 4	PART A : Employability Skills  UNIT- 2 : Self-Management Skills  UNIT- 4 : Entrepreneurial Skills	self-management focus on developing the ability to regulate emotions, behaviors, and actions to achieve personal and professional goals	Classroom discussion  Powerpoint presentations  Visual aids.	increased personal and professional effectiveness, enhanced well-being, and improved relationships	Diagram of Self-Management Skills	enable individuals to effectively manage their thoughts, feelings, and actions
	PHYSICAL EDUCATION	Unit 3  Unit 4	Yoga          Physical Education and sports for CWSN	Students will be able to understand the benefits and contraindications of yoga asanas. Illustration of yoga asanas. (Sitting, standing , on stomach and on our back)  Students will be able to understand the importance of participation of children with special needs in	Explanation Illustration With Examples explanation Reading       Explanation with examples Reading Cross questioning	Students will perform yoga asanas. Can prepare for a practical exam to get good marks.          Students will have knowledge of the tournaments and competitions related to children with special needs. Will be able to	The assessment will be done taking a practical exam. By performing yoga asanas.          The assessment	Students will get good at yoga asanas and will be able to perform and tell the benefits of various yoga asanas.          Students will get good at understanding the different kinds of tournaments of CWSN.

				different kinds of sports and how we can encourage physically challenged children to participate in sports.		motivate special children to participate in sports.	will be done by Cross Questioning about the Chapter in detail.	
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## MONTH: SEPTEMBER

Month & No. of working days	Subject	Lesson No.	Lesson Name & topic	Learning objective	Pedagogy ( Activities and resources)	Learning Outcome	Assessment	Life Skills
	ENGLISH	Literature          Writing	Hornbill: The Voice of the Rain The Ailing Planet: the Green Movement's Role The Browning Version Snapshots: Mother's Day  Writing: Formal letters  Grammar:	Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.          The student is able to: (i) master the Mechanics of	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to follow instructions and directions.  Make inferences and judgment.  Present various interpretation	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication , collaboration	Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.          Students will be able

		Grammar	Editing, Omission	writing; the use of correct punctuation marks and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events, processes etc; (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write paragraphs, letters. (personal and official) simple, narrative pieces, reports, notices, messages, diary entries etc; (x) make notes and		s of the poem and prose creatively and critically.	Assignments, Worksheets, Tests	to apply the grammar rules as per need in framing sentences and ideas while writing using the apt formats.
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				summarise; (xi) edit written material (xii) expand notes.				
	<b>PHYSICS</b>	Unit III: Chapter-5:	Laws of Motion	The learner can explain applications of Newton's three laws of motion, -explains problems with circular motion -Roll of friction in motions	<p><b>Experiments:</b></p> <p>5. To determine the mass of two different objects using a beam balance.</p> <p>6. To find the weight of a given body using the parallelogram law of vectors.</p> <p>7. Using a simple pendulum, plot its L-T<sup>2</sup> graph and use it to find the effective length of second's pendulum.</p> <p>8. To study variation of time period of a simple pendulum of a given length by taking bobs of same size but different masses and interpret the result.</p> <p><b>Activities</b></p> <p>1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.</p> <p>2. To determine mass of a given body using a metre scale by principle of moments.</p>		<a href="https://drive.google.com/file/d/0B8hXbv1ab-BT3EwQkxAVnp2WlU/view?sourcekey=0-Of50bqNxy8GUxa0eKcjD9w">https://drive.google.com/file/d/0B8hXbv1ab-BT3EwQkxAVnp2WlU/view?sourcekey=0-Of50bqNxy8GUxa0eKcjD9w</a>	
	<b>CHEMISTRY</b>	ch-6	Equilibrium in physical and chemical processes,	students will be able to define equilibrium in physical and chemical system. students will be able to differentiate	lab experiments real world examples inquiry based learning discussion ppt	Understand the dynamic nature of chemical equilibrium in reversible reactions.  Apply Le Chatelier's	assignment, worksheets, Ncert practice questions, MCQs	critical thinking, analytical thinking, observation and adaptability

			<p>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,</p>	<p>between static and dynamic equilibrium, le chatelier's principle</p>		<p>Principle to predict how changes in concentration, temperature, or pressure affect the equilibrium position.</p> <p>Use the equilibrium constant (<math>K_c</math> or <math>K_p</math>) to calculate and predict reaction behavior.</p> <p>Interpret graphical and numerical data related to equilibrium systems.</p>		
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			concept of pH, hydrolysis of salts (elementary idea), buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples).					
	<b>BIOLOGY</b>	CH- 8	<p>. Cell – The Unit of Life</p> <p>. Cell as basic structural and functional unit of life, difference between prokaryote/eukaryote, Cell membrane, and cell organelles like mitochondria, plastids, chloroplast and nucleus .</p>	Cell theory and its different Discoveries and inventions of Cel	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Learner learnt and understood about cell and structural organization of cell.	To observe the different stages of meiosis through permanent slides To prepare the onion root tip slide and to observe different stages of mitosis.	
				*Primary and	PPT	Students will be able to Understand about the Primary	Test the presence of protein fat and carbohydrate in	

		CH -9.	<b>Biomolecules</b> Structures of carbohydrates, proteins, fats, nucleic acids .	Secondary metabolites *structure and function of different Bio macromolecules and enzymes	Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	and Secondary metabolites Understand about the structure and function of different Bio macromolecules and enzyme.	food samples To prove heat destroys the activity of enzymes and not the catalyst. 2. to prove that change of pH inhibits the enzyme activity.	
	MATHS	<b>Permutations &amp; Combinations</b>	Fundamental Principle of Counting, Factorial n (n!), Permutations & Combinations , Derivation of Formulae and their connections, Simple Applications.	Students will be able to learn / understand about 1. Fundamental Principle of Counting 2. Meaning of Factorial 3. Concept and application of Permutations 4. Concept and application of Combinations	Worksheet to be given Lecture method Indo-deductive method experiential learning discussion Explanation demostration real life examples	Students learned about 1. Fundamental Principle of Counting 2. Meaning of Factorial 3. Concept and application of Permutations 4. Concept and application of Combinations 5. . Order 6. Imagination	<b>Activity</b> -To find the number of ways in which three cards can be selected from given five cards assignment s,worksheets	Students will attain following skills through solving variety of problems. 1. Order 2. Imagination 3. Management 4. Reasoning
		<b>Conic sections</b>	Section of a Cone, Circles, Ellipse, Parabola, Hyperbola, a	Students will be able to learn / understand about 1. Sections of a	Worksheet to be given Lecture method Indo-deductive	Students learned about 1. Sections of a Cone 2. Definition, Focus, Latus	-To construct a Pascal's Triangle and to write	Students will attain following skills through solving variety of problems.

			point , a straight line and a pair of intersecting lines as a degenerated cone of a conic section, standard equations and simple properties of Parabola, Ellipse and Hyperbola , Standard equation of a circle.	Cone 2. Definition, Focus, Latus rectum and directrixof parabola 3. Equation of Parabola 4. Definition, Major axis, minor axis, Focus, Latus rectum and directrixof Ellipse 5. Equation of Ellipse 6. Definition, Transverse axis, Conjugate axis, Focus, Latus rectum and directrixof Hyperbola 7. Equation of Hyperbola	method experiential learning discussion Explanation demostration real life examples	rectum and directrixof parabola 3. Equation of Parabola 4. Definition, Major axis, minor axis, Focus, Latus rectum and directrixof Ellipse 5. Equation of Ellipse 6. Definition, Transverse axis, Conjugate axis, Focus, Latus rectum and directrixof Hyperbola 7. Equation of Hyperbola 8. Imagination skill 9. Creativity	binomial expansion for a given positive integral exponen	1. Order 2. Imagination 3. Management 4. Reasoning
	AI	Revision for half yearly exam	Revision for half yearly exam	Revision for half yearly exam	Revision for half yearly exam	Revision for half yearly exam	Revision for half yearly exam	Revision for half yearly exam
	PHYSICAL EDUCATION	Unit 5	Physical fitness Health and Wellness	Students will be able to understand the importance of wellness, health and Physical fitness.	Reading and detailed explanation with examples Cross questioning	Students will understand the importance of wellness, health and Physical fitness. Get aware of giving	Assessment will be done by engaging students to get involved in fitness	Will get aware of Importance of fitness and Wellness in Lifestyle. Improve Leadership qualities.



		Unit 6	Test Measurement and Evaluation	<p>Leadership qualities will be explained and introduction to First aid will be given to the students.</p> <p>Students will be able to understand the Importance of Test, Measurement and Evaluation in sports performances. Will get clarity of BMI and will be able to calculate BMI, Waist Hip Ratio and Skin Fold Measurements.</p>	<p>Reading and detailed explanation with examples</p> <p>Cross questioning</p> <p>On Board Explanation</p>	<p>first aid. Will apply leadership qualities in daily life.</p> <p>Students have understood the importance of Measuring Performance of a sports person. Analysing the Performance level and Evaluating the improvement process in the game.</p>	<p>activities and take responsibility as a leader.</p> <p>Assessment will be done by engaging students to get involved in fitness activities and Evaluation their performances according to the game.</p>	<p>Students will be able to test, Measure and Evaluate their own performances.</p>
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## **MONTH: OCTOBER**

<b>Month &amp; No. of working days</b>	<b>Subject</b>	<b>Lesson No.</b>	<b>Lesson Name &amp; topic</b>	<b>Learning objective</b>	<b>Pedagogy ( Activities and resources)</b>	<b>Learning Outcome</b>	<b>Assessment</b>	<b>Life Skills</b>
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	<b>ENGLISH</b>	Literature	Hornbill: The Voice of the Rain The Ailing Planet: the Green Movement's Role The Browning Version Snapshots: Mother's Day Writing: Letter Writing	Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to follow instructions and directions.  Make inferences and judgment.	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication , collaboration	Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.
		Writing	Grammar: Editing, Omission	The student is able to: (i) master the Mechanics of writing; the use of correct punctuation marks and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events,		Present various interpretations of the poem and prose creatively and critically.	Assignments, Worksheets, Tests	Students will be able to apply the grammar rules as per need in framing sentences and ideas while writing using the apt formats.
		Grammar						

				<p>processes etc;  (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write paragraphs, letters. (personal and official) simple, narrative pieces, reports, notices, messages, diary entries etc; (x) make notes and summarise; (xi) edit written material (xii) expand notes.</p>				
	<b>PHYSICS</b>	Chapter -6  Unit V: Chapter- 7:	Work, Energy and Power -Continue  System of Particles and Rotational Motion	<p>- understand the concept of elastic and inelastic collision. Understand the concept of center of mass, application center mass of any system in our daily life. Learner can explain -angular momentum , torque, moment of couple and moment of inertia</p>	<p>Experiments:  9. To study the relationship between force of limiting friction and normal reaction and to find the co- efficient of friction between a block and a horizontal surface.  10. To find the downward force, along an inclined plane, acting on a roller due to the gravitational pull of the earth and study its relationship with the angle of inclination <math>\theta</math> by plotting a graph between force and <math>\sin\theta</math>.</p>	<p>- can understand applications of law of conservation of angular momentum -Understand Moment of Inertia of regular bodies and their need our daily life</p>	<p><a href="https://drive.google.com/file/d/0B8hXbvN1ab-Ba3hHZGlrQnJkRm8/view?resourcekey=0-7WGx6u4MmPpd5Syo45e-tw">https://drive.google.com/file/d/0B8hXbvN1ab-Ba3hHZGlrQnJkRm8/view?resourcekey=0-7WGx6u4MmPpd5Syo45e-tw</a></p> <p><a href="https://drive.google.com/file/d/0B8hXbvN1ab-BdUyUDdObFAzc3c/view?resourcekey=0-UtCn_D4pvSvOtUfV6XjGcg">https://drive.google.com/file/d/0B8hXbvN1ab-BdUyUDdObFAzc3c/view?resourcekey=0-UtCn_D4pvSvOtUfV6XjGcg</a></p>	

	<b>CHEMISTRY</b>	ch-7	<p>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>	<p>students will learn the concept of oxidation, reduction, identify oxidising and reducing agent, balance redox reactions</p>	<p>concept explanation visual aids hands on experiment</p>	<p>to identify oxidation and reduction, understand the role of oxidation and reduction in real life</p>	<p>practice reactions of balancing assignment worksheet class test</p>	<p>critical thinking problem solving collaboration</p>
	<b>BIOLOGY</b>	CH- 10	<p><b>Cell Cycle and Cell Division</b> Mitosis and meiosis.</p>	<p>*Cell Cycle and Cell Division *Various stages of Mitosis and Meiosis * significance of Mitosis and Meiosis.</p>	<p>PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration</p>	<p>Students will be able to identify that cuts and wound heals due to the process of cell division They will be sensitized and will be able to apply their knowledge that genetic disorder cannot be cured. They will be analyzing that</p>	<p>List the four stages of interphase, and describe the major events that occur during each stage in preparation for cell division. Describe the difference</p>	

		CH- 13	<p><b>Photosynthesis in higher Plants</b></p> <p>Steps of photosynthesis, Light and dark reaction, Role of chlorophyll, Cyclic and noncyclic photophosphorylation, Calvin Cycle, Hatch and Slack Cycle, Photorespiration, Factors.</p>	<p>To make them understand update with the Early Experiments To explain and make them understand the structure of chloroplast where Light reaction takes place Understand the importance of photosynthesis in plant growth Explain the mechanism of Photosynthesis-light and dark reaction</p>	<p>PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration</p>	<p>formation of one organelle facilitates the formation of other organelle which will inculcate the value of coordination.</p> <p>Students will be able to understand the structure of chloroplast where Light reaction takes place .They will be able to Understand the importance of photosynthesis in plant growth .</p>	<p>between mitosis and cytokinesis.</p> <p>1.To observe the effect of light in plants for photosynthesis 2.To observe the stomata in the lower and upper epidermis of leaf and find the stomatal index 3.To detect the formation of starch in different leaves 4.To prove the presence of chlorophyll by paper chromatography.</p>	
	<b>MATHS</b>	Chapter = -Straight lines	<p>Brief recall of two dimensional geometry, Shifting of origin, Slope of a line and angle</p>	<p>Students will be able to learn / understand about</p> <ol style="list-style-type: none"> <li>1. Slope of a Line</li> <li>2. Conditions for parallelism and perpendicularity of lines in terms of their slopes</li> <li>3.</li> </ol>	<p>Worksheet to be given Graphical method Lecture method Indo-deductive method PYQS HOTS CASE STUDY QUESTIONS</p>	<p>Students learned about</p> <ol style="list-style-type: none"> <li>1. Slope of a Line</li> <li>2. Conditions for parallelism and perpendicularity of lines in terms of their slopes</li> <li>3. Forms of the equation of a line</li> </ol>	<ol style="list-style-type: none"> <li>1. Multiple Choice Questions.</li> <li>2. Give the Case study question related to topic.</li> <li>3. Exercise which are given in textbook.</li> <li>4. Question</li> </ol>	<p>After learning this chapter students will be able to develop</p> <ol style="list-style-type: none"> <li>1. Presentation skill</li> <li>2. Visualization</li> <li>3. Give responses according to situation</li> </ol>

			<p>between two lines, Various forms of equations of a line, parallel to axis, point - slope form, Slope intercept form, Two point form, Intercept Form and Normal Form. General equation of a line. Equation of family of lines passing through the point of intersection of two lines,</p>	<p>Various forms of the equation of a line  4. Angle between two lines  5. General equation of a line  6. Distance of a point from a line  7. Distance between two parallel lines.</p>		<p>4. Angle between two lines  5. General equation of a line  6. Distance of a point from a line  7. Distance between two parallel lines.  8. Presentation skill 9. Visualization  10. Give responses according to situation</p>	<p>from Exemplar NCERT</p>	
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			Distance of a point from a line.					
AI	Unit 5 Unit 6	<p>PART B : Subject Skills</p> <ul style="list-style-type: none"> <li>UNIT – 5: - PYTHON PROGRAMMING</li> <li>UNIT – 6: INTRODUCTION TO CAPSTONE PROJECT</li> </ul>	Python programs is to gain proficiency in using Python to solve computational problems, develop applications, and understand fundamental programming concepts.	<p>Classroom discussion</p> <p>Powerpoint presentations</p> <p>Visual aids.</p>	Students gain the ability to write basic programs, understand fundamental concepts like variables and loops, and handle file operations	Programs related to Python.		

	<b>PHYSICAL EDUCATION</b>	Unit 7	Fundamentals of Anatomy Physiology in Sports	Students will be able to understand the Anatomy and Physiology of the human body. They will get detailed information about the Functions of Muscles, Circulatory System and Respiratory System.	Explanation with example Reading Topics Discussion	Students have understood the Functions of Respiratory system, Circulatory System and Muscles and the changes come in the body when our body is exposed to exercises.	All the students have a discussion about the chapter and tell Functions of systems in our body.	Students have the knowledge of Functioning of the body when it is exposed to exercises.
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## **MONTH: NOVEMBER**

<b>Month &amp; No. of working days</b>	<b>Subject</b>	<b>Lesson No.</b>	<b>Lesson Name &amp; topic</b>	<b>Learning objective</b>	<b>Pedagogy ( Activities and resources)</b>	<b>Learning Outcome</b>	<b>Assessment</b>	<b>Life Skills</b>
	<b>ENGLISH</b>	Literature  Writing  Grammar	Hornbill: The Adventure Childhood (Poem)  Writing: Poster  Grammar: Gap filling, Jumbled sentences	Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.  The student is able to: (i)	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to follow instructions and directions.  Make inferences and judgment.  Present	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communic	Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.



			<p>master the Mechanics of writing; the use of correct punctuation marks and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events, processes etc; (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write paragraphs, letters. (personal and official) simple, narrative pieces, reports, notices, messages, diary</p>		<p>various interpretations of the poem and prose creatively and critically.</p>	<p>ation , collaboration Assignments, Worksheets, Tests</p>	<p>Students will be able to apply the grammar rules as per need in framing sentences and ideas while writing using the apt formats.</p>
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				entries etc; (x) make notes and summarise; (xi) edit written material (xii) expand notes.				
	<b>PHYSICS</b>	Unit VI: Chapter-8	Gravitation	<p><b>Learners</b> can - state Kepler's law -can derive the expression for variation in acceleration due to gravity due to height and depth.</p> <p>Learner can - Handles tools and laboratory apparatus like searl apparatus -Can Understand the concept of elasticity and apply in general life.</p>	<p>Experiment: (Section B)</p> <ol style="list-style-type: none"> <li>To determine Young's modulus of elasticity of the material of a given wire.</li> <li>To find the force constant of a helical spring by plotting a graph between load and extension.</li> </ol> <p>Activity</p> <ol style="list-style-type: none"> <li>To plot a graph for a given set of data, with proper choice of scales and error bars.</li> <li>To measure the force of limiting friction for rolling of a roller on a horizontal plane.</li> <li>To study the variation in range of a projectile with angle of projection.</li> </ol> <p>Experiment</p> <ol style="list-style-type: none"> <li>To study the variation in volume with pressure for a sample of air at constant temperature by plotting graphs between P and V, and between P and 1/V.</li> <li>To determine the surface tension</li> </ol>	- can derive expression for gravitational potential energy, escape velocity and orbital velocity	<p><a href="https://drive.google.com/file/d/0B8hXbvn1ab-BdUsvUDdObFAzc3c/view?resourcekey=0-UtCn_D4pvSvQtUfV6XjGeg">https://drive.google.com/file/d/0B8hXbvn1ab-BdUsvUDdObFAzc3c/view?resourcekey=0-UtCn_D4pvSvQtUfV6XjGeg</a></p> <p><a href="https://drive.google.com/file/d/0B8hXbvn1ab-Ba3hHZGlrQnIkRm8/view?resourcekey=0-7WGx6u4MmPpd5Syo45e-tw">https://drive.google.com/file/d/0B8hXbvn1ab-Ba3hHZGlrQnIkRm8/view?resourcekey=0-7WGx6u4MmPpd5Syo45e-tw</a></p> <p><a href="https://drive.google.com/file/d/0B8hXbvn1ab-BYmxQSWpWZ3ZwS1E/view?resourcekey=0-PtH9RLd-fxWrrww4F6eNTYQ">https://drive.google.com/file/d/0B8hXbvn1ab-BYmxQSWpWZ3ZwS1E/view?resourcekey=0-PtH9RLd-fxWrrww4F6eNTYQ</a></p> <p><a href="https://drive.google.com/file/d/0B8hXbvn1ab-BeWhLTTEtbXBFTU0/view?resourcekey=0-qjA4p3uF_2wqwuqMK1oYYA">https://drive.google.com/file/d/0B8hXbvn1ab-BeWhLTTEtbXBFTU0/view?resourcekey=0-qjA4p3uF_2wqwuqMK1oYYA</a></p>	
		Unit VII: Properties of Bulk Matter Chapter-9:	Mechanical Properties of Solids					

	<b>CHEMISTRY</b>	ch-8	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, electrometr	students will understand the structure of organic compounds, classification of compounds, mechanisms of organic reactions, IUPAC, organic reactions	conceptual explanation, interactive lectures, demonstration, collaborative learning	students will be able to identify and classify organic compounds, mechanisms of reactions, nomenclature and name reactions	assignments worksheets ncert	critical and analytical thinking collaborative thinking, problem solving, practical application and innovation
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			<p>ic effect, resonance and hyper conjugation.</p> <p>Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.</p>					
	<b>BIOLOGY</b>	CH- 14	<p><b>Respiration in Plants</b></p> <p>Glycolysis, Fermentation, Aerobic respiration, TCA cycle, ETS and oxidative phosphorylation</p>	To make the student understand the mechanism of Glycolysis and relate it with other physiological process. To make them	<p>PPT</p> <p>Screen Sharing</p> <p>Explanation</p> <p>Experiential Learning</p> <p>Critical Communication and Collaboration</p>	<p>student will be able to understand the mechanism of Glycolysis and relate it with other physiological process.</p> <p>They will be</p>	<p>To compare the rate of respiration in germinating seeds (carbohydrate, proteins and fats)</p>	

		CH- 15	<p>on, and RQ values.</p> <p><b>Plant Growth and Development.</b> Plant growth &amp; Regulators.</p>	<p>differentiate between Fermentation/A naerobic and Aerobic respiration.</p> <p>To make the student understand about growth and Development.</p> <p>To make them analyze growth and development with different growth regulators and its importance in day to day life.</p>	<p>PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration</p>	<p>able to differentiate between Fermentation/ Anaerobic and Aerobic respiration.</p> <p>Students will be able to Differentiate between growth and development. They will be able to analyze the factors affecting plant growth and importance of growth regulators.</p>	<p>Analyze the different tropic movements in plants.</p>	
		CH - 17	<p><b>Breathing and Exchange of Gases</b></p> <p>Cellular Respiration, Respiratory Organs, Respiratory Volume Disorders.</p>	<p>Explain the different types of Respiration with examples. To familiarize with different Respiratory organs To make them understand and differentiate between breathing and</p>	<p>Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration</p>	<p>Students Will be able to describe how oxygen is transported in the blood, and explain how oxygen loading and unloading is affected by temperature, pH, temp and pCO<sub>2</sub> .</p>	<p>Evaluate how increase in temperature and decrease in pH (increase in pCO<sub>2</sub>) affects oxygen unloading.</p>	

				respiration.				
	MATHS	CHAPTER -13	LIMITS AND DERIVATIVE S 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 relateit to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions..	Students will be able to learn / understand about 1. Algebra of limits 2. Limits of polynomials and rational functions 3. Limits of Trigonometric Functions 4. Limits of Logarithmic and Exponential Functions 5. Algebra of derivative of functions 6. Derivative of the functions from first principle 7. Derivatives of functions	Worksheet to be given Learning by doing method PYQS HOTS CASE STUDY QUESTIONS DISCUSSION EXPLANATION	Students learned about 1. Algebra of limits 2. Limits of polynomials and rational functions 3. Limits of Trigonometric Functions 4. Limits of Logarithmic and Exponential Functions 5. Algebra of derivative of functions 6. Derivative of the functions from first principle 7. Derivatives of functions 8. Visualization of change 9. Dependency Evolves the concepts of limit and derivative of a function by analyzing the behavior of functions when the corresponding variable approaches a certain value	1. Multiple Choice Questions. 2. Give the Case study question related to topic. 3. Exercise which are given in textbook. 4. Question from Exemplar NCERT	Students will be able to develop 1. Visualization of change when other thing changes. 2. Dependency

		Chapter -14 Statistics	Measures of Dispersion: Range, mean deviation, variance and standard deviation of ungrouped/grouped data. Analysis of frequency distributions with equal means but different variances.	Students will be able to learn / understand about 1. Measures of Dispersion 2. Range 3. Mean Deviation 4. Variance and Standard Deviation 5. Coefficient of variation 6. Analysis of Frequency Distributions	Worksheet to be given Learning by doing method PYQS HOTS CASE STUDY QUESTIONS DISCUSSION EXPLANATION	Students learned about 1. Measures of Dispersion 2. Range 3. Mean Deviation 4. Variance and Standard Deviation 5. Coefficient of variation 6. Analysis of Frequency Distributions 7. deviation and effectiveness of data collected	1. Multiple Choice Questions. 2. Give the Case study question related to topic. 3. Exercise which are given in textbook. 4. Question from Exemplar NCERT	Students will be able to develop 1. interpretation and analyze the data 2. Effectiveness of data
	AI	Unit 3 Unit 4	PART B : Subject Skills  UNIT – 3: DATA LITERACY – DATA COLLECTION TO DATA ANALYSIS  UNIT-4 : MACHINE LEARNING ALGORITHMS	To explore various data collection methods and their application	lecture method  Powerpoint slides  Visual aids	Visualize the data using different techniques	It lays the foundation for reliable, accurate, and meaningful results.	

	<b>PHYSICAL EDUCATION</b>	Unit 8	Fundamentals of Kinesiology and Biomechanics in Sports	Students have the knowledge of Kinesiology and Biomechanics of the human body. They will get more information about the Principles of Biomechanics. Types of body movements and Axis and Planes.	Discussion Explanation of Topics with examples Reading Chapter	After going through the chapter the students will be able to identify the movements of the human body.	Practical Presentation of the human body while sitting and standing. (Flexion, Extension, abduction, Adduction etc.)	Students will be able to understand the movements of body and joints.
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## **MONTH: DECEMBER**

<u>Month &amp; No. of working days</u>	<u>Subject</u>	<u>Lesson No.</u>	<u>Lesson Name &amp; topic</u>	<u>Learning objective</u>	<u>Pedagogy ( Activities and resources)</u>	<u>Learning Outcome</u>	<u>Assessment</u>	<u>Life Skills</u>
	<b>ENGLISH</b>	Literature  Writing	Hornbill: Silk Road Snapshots: Birth  Writing: Speech, Advertisement	Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.  The student is able to: (i) master the	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to follow instructions and directions.  Make inferences and judgment.  Present various	All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication , collaboration	Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.



			<p>Mechanics of writing; the use of correct punctuation marks and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events, processes etc; (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write paragraphs, letters. (personal and official) simple, narrative pieces, reports, notices, messages, diary entries etc; (x)</p>		<p>interpretation s of the poem and prose creatively and critically.</p>	<p>on Assignmen ts, Worksheet s, Tests</p>	<p>Students will be able to apply the grammar rules as per need in framing sentences and ideas while writing using the apt formats.</p>
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				make notes and summarise; (xi) edit written material (xii) expand notes.				
	<b>PHYSICS</b>	Chapter-10:  Chapter-11:	Mechanical Properties of Fluids  Thermal Properties of Matter	Learner can -applies concepts of viscosity and surface tension in daily life while making decisions and solving problems. - Handles tools and laboratory apparatus Capillary tube properly;  Learner can relate different coefficient of thermal expansion	Experiment: 5. To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.  6. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.  7. To determine specific heat capacity of a given solid by method of mixtures.  Activities  1. To observe change of state and plot a cooling curve for molten wax.  2. To observe and explain the effect of heating on a bi-metallic strip.	- can measures physical quantities like surface tension using appropriate apparatus, instruments, and devices.  -Can explain the concept of Cp and Cv and can relate it. - can understand importance of anomalous behaviour of water for existence of aquatic life.-	<a href="https://drive.google.com/file/d/0B8hXbv_n1ab-BXzFQUG4za044ZEU/view?resourcekey=0-E_bFaaA-2CI0x3lCko96jg">https://drive.google.com/file/d/0B8hXbv_n1ab-BXzFQUG4za044ZEU/view?resourcekey=0-E_bFaaA-2CI0x3lCko96jg</a>  <a href="https://drive.google.com/file/d/0B8hXbv_n1ab-BT3U5aldVY0pPU0k/view?resourcekey=0-aKCfTAmfaN5fVDSTGfc_sA">https://drive.google.com/file/d/0B8hXbv_n1ab-BT3U5aldVY0pPU0k/view?resourcekey=0-aKCfTAmfaN5fVDSTGfc_sA</a>	
	<b>CHEMISTRY</b>	ch-9	hydrocarbons Aliphatic Hydrocarbons Alkanes - Nomenclature,	students will understand the classification of hydrocarbons identify and describe the structure and bonding, reactions of hydrocarbons	conceptual explanations, 3D models demonstration	students will classify hydrocarbons, identify the properties, will know the reactions including hydrocarbons, importance of hydrocarbons	Assignments, worksheets Ncert questions	practical application of knowledge, environment awareness, problem solving approach

			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					
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			preparation , chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnik ov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophili c addition. Alkynes - Nomenclat ure, structure of triple bond (ethyne), physical properties,					
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			<p>methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water.</p> <p>Aromatic Hydrocarbons</p> <p>Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism</p>					
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			<p>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>					
	<b>BIOLOGY</b>	CH- 18	<p><b>Body Fluids and Circulation.</b> Cellular Respiration, Respiratory</p>	<p>To make them aware about different components of Blood To differentiate</p>	<p>PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration</p>	<p>The learners learnt and understood about the different components of blood , blood groups and mechanism of</p>	<p>To make a punnett square to prove the blood group detected by</p>	

			Organs, Respiratory Volume Disorders	between blood and Lymph (tissue fluid) Blood groups and Rh factor. To make them understand about the mechanism of blood clot .		blood clotting. The learners comprehended and analyzed the cardiac cycle They understood the mechanism of heart beat and interpreted it with a pacemaker.	analysis satisfies the phenotypic ratio by crossing the parental blood groups.	
		CH - 19	<b>Excretory Products and Their Elimination</b> Modes of Excretion, Human excretory system, Kidney function and disorders.	To make the familiarize with the different parts of Human excretory system To explain about the mechanism of Urine formation Micturition To make them aware about different disorders of Excretory system.	PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration .	The students will be able to understand the physiology & mechanism of excretion.	To analyze the presence of sugar, bile salts, urea in urine.	
		CH - 20	<b>Locomotion &amp; Movement.</b> Skeletal muscles, Muscle contraction Nervous system in humans, CNS, PNS & ANS ,nerve impulse.	Students will be able to Classify the skeleton system into Axial and Appendicular system Categorize different types of muscles. Analyze anatomical structures of skeleton in relationship to their physiological functions.	Activity 1.Explore the bones, muscles and joints in human skeletal system. 2. Puzzle - Assemble bones of human skeleton 3. Identifying different activities by using different muscles striated, non striated and smooth muscles 4. Role play of synovial joints with various day to day life activities.	Students Will be able to Compare between male and female skeletons. They will be able to differentiate between the bones of individuals at different ages.	Study of different types of bones and cartilage of human body by models.	
	<b>MATHS</b>	Chapter -15	<b>Probability Random experiments; outcomes, sample spaces (set</b>	Students will be able to learn / understand about 1. Random experiments 2. Outcomes and sample space 3. Types of events 4. Algebra of events 5. Probability of an	Worksheet to be given Lecture method Indo-deductive method Learning by doing method	Builds up the axiomatic approach to Probability through the terms, random experiment,	1. Multiple Choice Questions. 2. Give the Case study question related to	Logical Thinking, Problem Solving, analytical skills developed

			<p>representatio n). 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.</p>	event		Sample space, events etc	<p>topic. 3.Exercise which are given in textbook. 4.Question from Exemplar NCERT</p>	
	AI	Unit 7  Unit 8	<p><b>PART B : Subject Skills</b></p> <ul style="list-style-type: none"> <li>UNIT 7 – LEVERAGING LINGUISTICS AND COMPUTER SCIENCE</li> <li>UNIT 8 – AI ETHICS AND VALUES</li> </ul>	<p>understand the challenges of NLP and its importance in modern technology</p>	<p>Lecture method  powerpoint Slides  visual aids</p>	<p>learn new techniques and algorithm for NLP task</p>		



	<b>PHYSICAL EDUCATION</b>	Unit 9	Psychology in Sports	Students will be able to understand the importance of Psychology in sports. Explanation of Adolescent problems and management of it. An introduction to Psychological Attributes.	Learning Critical Communication Explanation with examples	After understanding the chapter students will be able to understand the Psychology in Physical education and sports.	Assessments will be done by discussing more about the chapter.	Students will be able to understand the Psychology of Sports person and The problems faced by Adolescent problems.
		Unit 10	Training and Doping in sports	Students will be able to understand the Principles of sports training and mechanism of Training Load (Overload, Adaptation and Recovery).. Disadvantages of Doping.	Learning Critical Communication Explanation with examples	After understanding the chapter students will be able to understand the mechanism of training. Doping disadvantages.	Assessments will be done by discussing more about the chapter.	Students will be able to understand the Doping Disadvantages and Concept of skills, Techniques and Tactics.

**MONTH: JANUARY**

<u>Month &amp; No. of working days</u>	<u>Subject</u>	<u>Lesson No.</u>	<u>Lesson Name &amp; topic</u>	<u>Learning objective</u>	<u>Pedagogy ( Activities and resources)</u>	<u>Learning Outcome</u>	<u>Assessment</u>	<u>Life Skills</u>
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	<b>ENGLISH</b>	Literature	Hornbill: Father to Son Snapshots: The Tale of Melon City (Poem)	<p>Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.</p> <p>The student is able to: (i) master the Mechanics of writing; the use of correct punctuation marks and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events,</p>	<b>PPT</b> <b>Screen Sharing</b> <b>Explanation</b> <b>Experiential Learning</b> <b>Critical Communication and Collaboration</b>	<p>Students will be able to follow instructions and directions.</p> <p>Make inferences and judgment.</p> <p>Present various interpretations of the poem and prose creatively and critically.</p>	<p>All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication , collaboration</p> <p>Assignments, Worksheets, Tests</p>	<p>Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.</p> <p>Students will be able to apply the grammar rules as per need in framing sentences and ideas while writing using the apt formats.</p>
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				<p>processes etc;  (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write paragraphs, letters. (personal and official) simple, narrative pieces, reports, notices, messages, diary entries etc; (x) make notes and summarise; (xi) edit written material (xii) expand notes.</p>				
	<b>PHYSICS</b>	<p>Unit VIII:  Chapter–12:</p> <p>Unit IX:  Behavior of Perfect Gases and Kinetic Theory of Gases  Chapter–13:</p> <p>Unit X:  Chapter– 14</p>	<p>Thermodynamics</p> <p>Kinetic Theory</p>	<p>Learner can know about law of thermodynamics and Heat engine</p> <p>Learner can derive the expression for Gas pressure and can relate it with Kinetic energy. Can understand the concept of degree of freedom and can relate it with specific heat of mono-atomic , diatomic and triatomic gasses.</p>	<p>8. To study the relation between frequency and length of a given wire under constant tension using sonometer.</p> <p>9. To study the relation between the length of a given wire and tension for constant frequency using sonometer.</p> <p>10. To find the speed of sound in air at room temperature using a resonance tube by two resonance positions. resonance positions.</p> <p>PERIODIC TEST-II</p>	<p>Can Differentiate between periodic motion and simple harmonic motion. Concept of total mechanical energy of oscillating particle in SHM</p>	<p><a href="https://drive.google.com/file/d/0B8hXbvnlab-BalVsTmhKQ1ZIRWc/view?resourcekey=0-T82fHVSn9yyOL9MjCNGOxQ">https://drive.google.com/file/d/0B8hXbvnlab-BalVsTmhKQ1ZIRWc/view?resourcekey=0-T82fHVSn9yyOL9MjCNGOxQ</a></p> <p><a href="https://drive.google.com/file/d/0B8hXbvnlab-BZEQ1ZIMxbXE5VfU/view?resourcekey=0-RxyweU-FBOqO7dktPmApQw">https://drive.google.com/file/d/0B8hXbvnlab-BZEQ1ZIMxbXE5VfU/view?resourcekey=0-RxyweU-FBOqO7dktPmApQw</a></p> <p><a href="https://drive.google.com/file/d/0B8hXbvnlab-BZEQ1ZIMxbXE5VfU/view?resourcekey=0-RxyweU-FBOqO7dktPmApQw">https://drive.google.com/file/d/0B8hXbvnlab-BZEQ1ZIMxbXE5VfU/view?resourcekey=0-RxyweU-FBOqO7dktPmApQw</a></p>	

			Oscillations				<a href="https://drive.google.com/file/d/0B8hXbvn1ab-Ba3hpd28tQjd4SjA/view?resourcekey=0-yR8vJUfeHy415Ne9d1WjNQ">ogle.com/file/d/0B8hXbvn1ab-Ba3hpd28tQjd4SjA/view?resourcekey=0-yR8vJUfeHy415Ne9d1WjNQ</a>	
	<b>CHEMISTRY</b>	Revision of full syllabus						
	<b>BIOLOGY</b>	CH - 21.  CH - 22	<b>Neural Control and Coordination</b> Skeletal muscles, Muscle contraction Nervous system in humans, CNS, PNS & ANS ,nerve impulse.  <b>Chemical Coordination and Integration</b> Endocrine Glands hormones and Their functions with disorders.	Students – Will study several major organs that function as a part of nervous system. They will study the role of different sensory receptors in humans in converting different forms of energy into nerve impulse.  Describe and explain the transmission of an action potential in a myelinated neuron. (The importance of sodium and potassium ions in the impulse transmission should be emphasised.)	Different activities to observe the reflex action in day to day life eg; by observing sudden withdrawal of finger or hand with hot, cold water or pointed objects, jerking of knee when hit below knee cap.  PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration	*Students will be able to demonstrate that the nervous system is responsible for communication between different parts of the body , detecting stimuli in the body and directing body's responses.  *Students will be able to describe the structure of a typical neuron and indicate the function(s) of each of its parts  Students will be able to explain the transmission of hormones .	Categorize and interpret the cause of different hormonal diseases.  Identify and describe the effects of the hormones that are released by the anterior pituitary gland. Know what stimulates their production and where they are	

							produced. Understand how the regulation of GH, PRL, and MSH differs from that of TSH, ACTH, LH, and FSH.	
	<b>MATHS</b>							
	<b>AI</b>		<ul style="list-style-type: none"> <li>· Revision</li> <li>· Tests</li> <li>· Project Work</li> <li>Practical File</li> </ul>	<ul style="list-style-type: none"> <li>· Revision</li> <li>· Tests</li> <li>· Project Work</li> <li>Practical File</li> </ul>	<ul style="list-style-type: none"> <li>· Revision</li> <li>· Tests</li> <li>· Project Work</li> <li>Practical File</li> </ul>	<ul style="list-style-type: none"> <li>· Revision</li> <li>· Tests</li> <li>· Project Work</li> <li>Practical File</li> </ul>	<ul style="list-style-type: none"> <li>· Revision</li> <li>· Tests</li> <li>· Project Work</li> <li>Practical File</li> </ul>	
	<b>PHYSICAL EDUCATION</b>		Revision and Preparation for Annual Exams	Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems	Explanation Experiential Learning Critical Communication and Collaboration	Students will be able to take the examination properly.	Test will assess the performance of students.	They will be able to answer the questions related to the syllabus.

## MONTH: FEBRUARY

<u>Month &amp; No. of working days</u>	<u>Subject</u>	<u>Lesson No.</u>	<u>Lesson Name &amp; topic</u>	<u>Learning objective</u>	<u>Pedagogy ( Activities and resources)</u>	<u>Learning Outcome</u>	<u>Assessment</u>	<u>Life Skills</u>
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	<b>ENGLISH</b>	Full Syllabus Revision and Final Examinations	Full Syllabus Revision	<p>Students will be able to identify , analyze , interpret and describe the critical ideas , values and themes that appear in the literary prose and poems.</p> <p>The student is able to: (i) master the Mechanics of writing; the use of correct punctuation marks and capital letters; (ii) spell words correctly; (iii) write neatly and legibly with reasonable speed; (iv) use appropriate vocabulary; (v) use correct grammatical items; (vi) write coherently in more than one paragraph; (vii) complete accurately and fluently semi controlled compositions like stories, events,</p>	<p>PPT Screen Sharing Explanation Experiential Learning Critical Communication and Collaboration</p>	<p>Students will be able to follow instructions and directions.</p> <p>Make inferences and judgment.</p> <p>Present various interpretations of the poem and prose creatively and critically.</p>	<p>All the competencies will be assessed through subject enrichment activities like creativity and innovation, critical thinking , communication , collaboration</p> <p>Assignments, Worksheets, Tests</p>	<p>Students will be able to Critically analyze the prose and poetry. Appreciate the beauty , rhyme, style, genre of the poem and prose.</p> <p>Students will be able to apply the grammar rules as per need in framing sentences and ideas while writing using the apt formats.</p>
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				<p>processes etc;  (viii) write description of people, places and things and respond imaginatively to textual questions; (ix) write paragraphs, letters. (personal and official) simple, narrative pieces, reports, notices, messages, diary entries etc; (x) make notes and summarise; (xi) edit written material (xii) expand notes.</p>				
	<b>PHYSICS</b>	Unit X: Chapter– 14  Chapter15-	Oscillations  Chapter15- Waves - continue	-can derive the expression for time period and frequency of different S.H.M. in nature Handles tools and laboratory apparatus like sonometer and resonance tube properly.	REVISION FOR SESSION ENDING EXAMNAION PRACTICAL EXAMINATION	Can analyse different mode of vibrations in stretched string, open organ pipe and closed organ pipe.fundamental mode and harmonics, Beats, Doppler effect.	<a href="https://drive.google.com/file/d/0B8hXbvN1ab-BYXh6NEFTUDloZmc/view?resourcekey=0-xNwnFg3zbn2rQX1BLDi7uw">https://drive.google.com/file/d/0B8hXbvN1ab-BYXh6NEFTUDloZmc/view?resourcekey=0-xNwnFg3zbn2rQX1BLDi7uw</a>  <a href="https://drive.google.com/file/d/0B8hXbvN1ab-BckU0RjU0SFOxQ1k/view?resourcekey=0-sam7r7EDI_8jElzy_SOBYg">https://drive.google.com/file/d/0B8hXbvN1ab-BckU0RjU0SFOxQ1k/view?resourcekey=0-sam7r7EDI_8jElzy_SOBYg</a>	

	<b>CHEMISTRY</b>	revision of full syllabus						
	<b>BIOLOGY</b>			REVISION				
	<b>MATHS</b>							
	<b>AI</b>	Revision for final exam	Revision for final exam	Revision for final exam	Revision for final exam	Revision for final exam	Revision for final exam	Revision for final exam
	<b>PHYSICAL EDUCATION</b>		Full Syllabus Revision	Students will be able to identify , analyze , interpret and Solve questions.	Explanation Experiential Learning Critical Communication	After going through this chapters, the students will be able to do questions.	Test will assess the performance of students.	They will be able to answer the questions related to the syllabus.