

JAIN VIDYA MANDIR SR. SEC. SCHOOL

Annual planner -2024-25

English

Class -XI

Month	Particulars	Activity	Teaching Aids	Methodology
April	<b>Literature:</b> R1:Portrait of a Lady R2: We're Not Afraid to Die P1: A Photograph <b>Grammar:</b> Tenses and Verbs	<b>Activity1:</b> Jolt down your relationship with your elders.	Hornbill reader, Snapshots, English practice, test materials, chalk-duster smartclass, greenboard, mindmap (self made), classrooms, etc.	Group Discussion, Class Interaction, Explanation, Demonstration, Collaboration, Lecturing, Reading
May	<b>Literature:</b> R3:Discovering Tut S1 : The Summer of a Beautiful White Horse S2: The Address P2: The Laburnum Top <b>Writing Skills:</b> Advertisement	Activity2: share your experience about village	Hornbill reader, Snapshots, English practice, test materials, chalk-duster smartclass, greenboard, mindmap (self made), classrooms,etc.	Debriefing, Debate, Classroom discussion, enquiry based Lecture, Values Classification, Brainstorming, Demonstration, Problem solving, Reading
June	Summer Break			
July	<b>Literature:</b> P3: The Voice of the Rain <b>Grammar:</b> Reordering, Error-, omission <b>Writing Skills:</b> poster	<b>Activity3:</b> Role Play Activity	Hornbill reader, Snapshots, English practice, test materials, chalk-duster smartclass, greenboard, mindmap (self made), classrooms,etc.	Debriefing, Debate, Classroom discussion, enquiry based Lecture, Values Classification, Brainstorming, Demonstration, Problem solving, Group Discussion, Reading
August	<b>Literature:</b> S5: Mother's Day <b>Grammar:</b> clauses <b>Writing Skills:</b> Speech Writing	<b>Activity4:</b> Role Play Activity	Hornbill reader, Snapshots, English practice, test materials, chalk-duster smartclass, greenboard, mindmap (self made), classrooms,etc.	Enquiry based Lectures, Classroom discussion, Demonstration, Explanation, Reading, Debate, Problem solving, Reading
September	<b>Revision and Half-yearly Exams</b>			
October	<b>Literature:</b> R7: The Adventure S6: Birth P4: Childhood <b>Grammar:</b> Transformation of sentences <b>Writing Skills:</b> Debate writing	<b>Activity7:</b> Define the role of a doctor in today's generation	Hornbill reader, Snapshots, English practice, test materials, chalk-duster smartclass, greenboard, mindmap (self made), classrooms,etc.	Enquiry based Lectures, Classroom discussion, Demonstration, Explanation, Reading, Debate, Problem solving, Reading

November	<b>Literature:</b> R8: Silk Road S7: The Tale of Melon City P5: Father to Son <b>Grammar:</b> Clauses <b>Skills:</b> Speech writing	<b>Writing</b> 	<b>Activity6:</b> Frame few lines of poetry	Hornbill reader, Snapshots, English practice, test materials, chalk-duster smartclass, greenboard, mindmap (self made), classrooms,etc.	Enquiry based Lectures, Classroom discussion, Demonstration, Explanation, Reading, Debate, Problem solving, Reading
December	<b>Literature:</b> Revision			Snapshots, English practice, test materials, chalk-duster smartclass, greenboard, mindmap (self made), classrooms,etc.	Demonstration, Explanation, Reading, Debate, Problem solving, Reading
January	<b>Revision</b>				
February	<b>Revision/Examination</b>				
March	<b>Examinations</b>				

### SUBJECT- Biology (044)

Months	Week	Lesson No & Name	Activity
<b>July</b>	<b>Week -1</b>	1.The Living World	Study of compound microscope
	<b>Week-2,3</b>	2.Biological Classification	Study and description of the flowers.
	<b>Week-4</b>	3.Plant Kingdom	Study of specimens & identification with reasons.
<b>August</b>	<b>Week-1</b>	4.Animal Kingdom	Study of characters of animal specimens and identification with reasons
	<b>Week-2</b>	5.Morphology of Flowering Plants.	
	<b>Week-3,4</b>	6. Anatomy of flowering plants	Study of distribution of stomata
<b>September</b>	<b>Week-1,2</b>	7.Structural Organization in Animals	Preparation and study of T.S. dicot and monocot root and stem

	<b>Week-3</b>	8.Cell theory and cell as the basic unit of life	Study of osmosis
	<b>Week-4</b>	9.Biomolecules	Study of plasmolysis in epidermal peels of leaves
<b>October</b>	<b>Week-1,2</b>	10.Cell division and Cell Theory	Study of mitosis ( onion and grasshopper) through permanent slides
	<b>Week-3,4</b>	13.Photosynthesis	Test of presence of sugar, starch, proteins and fats in plant and animal material
<b>November</b>	<b>Week-1</b>	14.Respiration in Plants	Comparative study of rate of transpiration
	<b>Week-2,3</b>	15.Plant growth and development	Study of Photosynthesis-Separation of plant pigments through paper chromatography
	<b>Week4</b>	17.Breathing and Respiration	Rate of respiration
<b>December</b>	<b>Week-1,2</b>	17.Breathing and Respiration	Different types of inflorescence
	<b>Week-3</b>	18.Body fluids and circulation	Human skeleton and different types of joints
	<b>Week-4</b>	19. Excretory products and their elimination	Investigatory Project
<b>January</b>	<b>Week-1</b>	20.Locomotion and movement	Test for presence of urea and sugar in urine
	<b>Week-2</b>	21.Neural control and coordination	Test for presence of albumin in urine
		22.Chemical control & coordination	Test for presence of bile salts in urine
<b>February</b>		Revision	Investigatory Project
<b>March</b>		Annual Exam	

## SUBJECT – CHEMISTRY

MONTH	Week	TOPIC	SUBTOPIC	ACTIVITIES	METHODOLOGIES	TEACHING AIDS
April	1 <sup>st</sup> week	SOME BASIC CONCEPTS OF CHEMISTRY	General Introduction: Importance and scope of Chemistry. Nature of matter, laws of chemical combination, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and calculations based on stoichiometry	Make a poster showing the importance of chemistry in everyday life.	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Explanation</li> <li>• observation</li> </ul>	Chalk, duster, green board, model, smart board
	2 <sup>nd</sup> week			Make a chart showing the classification of matter .		
				On A4 size sheet write laws of chemical combination		
				Make a poster showing different branches of Chemistry.		
3 <sup>rd</sup> week	STRUCTURE OF ATOM	Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals, quantum numbers, shapes of s, p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms, stability of half-filled and	Draw spectral lines of atomic hydrogen on A4 size sheet	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Explanation</li> <li>• observation</li> </ul>	Chalk, duster, green board, model, smart board	
4 <sup>th</sup> week			Explain photoelectric effect with diagram on a chart.			
				Draw boundary surface diagram of s, p and d orbitals.		
				Show the spectrum of electromagnetic radiations on a chart paper.		

			completely filled orbitals.			
May	1 <sup>st</sup> week	Classification of Elements and Periodicity in Properties	Significance of classification, brief history of the development of periodic table, modern periodic law and the present form of periodic table, periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, ionization enthalpy, electron gain enthalpy, electronegativity, valency.	Draw modern periodic table on a piece of chart	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Explanation</li> <li>• observation</li> </ul>	Chalk, duster, green board, model, smart board
	2 <sup>nd</sup> week		Nomenclature of elements with atomic number greater than 100	On a piece of chart draw a figure show the periodic trends of elements in the periodic table  A4 size sheet show the nomenclature of elements with atomic number above 100  Write an assignment on the anomalous properties of second period elements		
August	2 <sup>nd</sup> week	Chemical Bonding and Molecular Structure	Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory,	Write Lewis representation of some molecules on a piece of chart	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Explanation</li> <li>• observation</li> </ul>	Chalk, duster, green board, model, smart board
	3 <sup>rd</sup> week		resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules,	Explain bond parameters on a chart paper.		
	4 <sup>th</sup> week		molecular orbital theory of homonuclear diatomic molecules(qualitative idea only), Hydrogen bond	Write a table showing dipole moments of some molecules on an A4 size sheet.  Draw shapes of molecules containing bond pair and lone pair on a		

July	<p>1<sup>st</sup> week</p> <p>2<sup>nd</sup> week</p> <p>3<sup>rd</sup> week</p> <p>4<sup>th</sup> week</p>	Thermodynamics	<p>Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics -internal energy and enthalpy, heat capacity and specific heat, measurement of <math>\Delta U</math> and <math>\Delta H</math>,</p> <p>Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution.</p> <p>Second law of Thermodynamics (brief introduction) Introduction of entropy as a state function, Gibb's energy change for</p> <p>spontaneous and non-spontaneous processes, criteria for equilibrium. Third law of thermodynamics (brief introduction).</p>	<p>chart</p> <p>With the help of diagram show types of system on a chart.</p> <p>Draw the diagram of bomb calorimeter on an A4 size sheet</p> <p>Write enthalpies of different types of reactions on a chart</p> <p>draw enthalpy diagram for lattice enthalpy of sodium chloride (born Haber cycle) on chart</p>	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Explanation</li> <li>• observation</li> </ul>	Chalk, duster, green board, model, smart board
August	<p>1<sup>st</sup> week</p> <p>2<sup>nd</sup> week</p> <p>3<sup>rd</sup> week</p>	Equilibrium	<p>Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant,</p> <p>factors affecting equilibrium - Le Chatelier's principle, ionic equilibrium- ionization of acids and bases, strong and weak electrolytes,</p> <p>degree of ionization, ionization of poly basic</p>	<p>With the help of diagram show how to predict the direction of the reaction.</p> <p>Write applications of equilibrium constant</p> <p>Write an assignment on the significance of PH paper or</p>	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Explanation</li> <li>• observation</li> </ul>	Chalk, duster, green board, model, smart board

	4 <sup>th</sup> week		acids, acid strength, concept of pH, hydrolysis of salts (elementary idea),  buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples).	universal indicator  Diagrammatically show on factors affecting equilibrium		
October	1 <sup>st</sup> week	Redox Reactions	Concept of oxidation and reduction, redox reactions, oxidation number,	On a piece of chart write the differences between reduction and oxidation reactions.	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Explanation</li> <li>• observation</li> </ul>	Chalk, duster, green board, model, smart board
	2 <sup>nd</sup> week		balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number,	On A4 size sheet show the different steps involved in balancing of reaction.		
	3 <sup>rd</sup> week		applications of redox reactions	<p>Make a list of oxidation and reduction reactions on an A4 size sheet.</p> <p>Write different types of reactions on a piece of chart.</p>		
October	3 <sup>rd</sup> week	Organic Chemistry - Some Basic Principles and Techniques	General introduction, methods of purification, qualitative and quantitative analysis, classification	show Classification of organic compounds on a chart	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Explanation</li> <li>• observation</li> </ul>	Chalk, duster, green board, model, smart board
	4 <sup>th</sup> week		IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation.	<p>Make a model to show 3D representation of methane molecule</p> <p>Chart show</p>		

November	1 <sup>st</sup> week		Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles,	some functional group and classes of organic compounds.			
	2 <sup>nd</sup> week		types of organic reactions	On an A4 size sheet show resonance effect			
November	3 <sup>rd</sup> week	Hydrocarbons	Classification of Hydrocarbons Aliphatic Hydrocarbons: Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis.	Draw conformations of ethane A4 size sheet  Write an assignment on carcinogenicity and toxicity  Write a report on hydrogenation  Show importance of hydrocarbons with the help of a collage	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Explanation</li> <li>• observation</li> </ul>	Chalk, duster, green board, model, smart board	
	4 <sup>th</sup> week						
December	1 <sup>st</sup> week						Alkenes - Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect),
	2 <sup>nd</sup> week						ozonolysis, oxidation, mechanism of electrophilic addition. Alkynes - Nomenclature, structure of triple bond (ethyne), physical properties,
	3 <sup>rd</sup> week		methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water.				



	4 <sup>th</sup> week		Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of functional group in monosubstituted benzene. Carcinogenicity and toxicity			
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SUBJECT - INFORMATICS PRACTICES

MONTH	WEEK	TOPIC	SUB TOPIC	ACTIVITIES	METHODOLOGY	INSTRUCTIONAL/ TEACHING AIDS
April	Week –I	Computer System	Introduction,Basic computer , Input unit, output unit  Organization	Group discussion on related topics	1. Lecture cum Discussion Method 2. Illustration Method	White board, marker,duster, pointer, flash cards course book
	Week-II		Types of software, Transition from calculator to computer and smart devices, evolution of computers, troubleshooting computer operations			
	Week-III	Introduction, Purpose of DBMS , Relational Database Model Terminology, Brief History of MYSQL ,				
	Week-IV	Database Concepts  MYSQL database system , starting MYSQL, MYSQL and SQL	Students will learn DBMS concepts. Practical demo will be given to them in lab using MYSQL to	1. Lecture Method 2. Brain Storming	White board, marker, duster, pointer, Computer,	

				learning functioning of software		MYSQL software, course book
May	Week –I	Structured Query Language (SQL)	Introduction , MYSQL Elements, SQL command Syntax, making simple queries  (Insert, Update, Delete, Select)	Demonstration of different commands and function will be delivered. And Students will learn with practical practice in lab by creating their databases, tables and different DDL and DML statements.  Time Bound Team Based Exercise related to different topics and other practical	1. Lecture cum & Demonstration Method  2. Illustration method	Black board , chalk , duster, pointer, computer system, database software(MYSQL)
	Week-II		Selectin specific rows			
	Week-III		Logical operators  Order by			
	Week-IV		More on DDL			
June		SUMMER BREAK				
July	Week-I	Getting started with Python  Python Fundamentals	Introduction, Python- Pluses and Minuses, Working in Python ,	Practical demo will be given to them to work with Python and students will do their practice in software to be familiar with language  basic concepts will be practiced with the help of	1. lecture cum Discussion Method  2. Demonstration Method  1. lecture cum Discussion Method  2.	White board, marker, duster, pointer, computer system, Python Anaconda distribution software  White board, marker, duster, pointer, computer system, Python
	Week-II		Understanding First Program Script			
	Week-III		Introduction, Python character set, Tokens, Barebones of a Python Program ,  Variables and Assignments, Simple Input and Output			

	Week-IV			practical and students will try to use in short modules	Demonstration Method 3. Illustration Method	Anaconda distribution software
August	Week-I	Data Handling	Introduction, Data types, Mutable and Immutable types ,	Students will create modules bases on math calculation like :addition, subtraction etc. using different operators and libraries	1. lecture cum Discussion Method 2. Demonstration Method 3. Illustration Method	White board, marker,duster, pointer,computer system, Python Enaconda distribution software
	Week-II		Operators, Expressions			
	Week-III	Flow of Control	Introduction, Types of Statements in Python , Statement Flow Control,if Statements of Python , Repetition of Tasks -, range ( ), looping statements,	Module that calculate total selling price and discount ,module related to print three integers in ascending order, to print table of a number like 5, print sum of natural numbers between 1 to10 etc.	1. lecture cum Demonstration Method 2. Brain storming	White board, marker,duster, pointer,computer system, Python Enaconda distribution software
	Week-IV					
September	Revision + Half Year Examination					
October	Week -I	List Manipulation	Introduction, Creating and accessing lists, lists operations, Making true copy of a list, list	Program to calculate mean of a given list of numbers, program to search for an element for an element in a given list of a numbers , program to count frequency of a given elements of a given element in a list of numbers. etc.	1. lecture cum Discussion Method 2. Demonstration Method	White board, marker,duster, pointer,computer system, Python Enaconda distribution software
	Week -II		functions and methods, nested lists, list manipulation			
	Week -III		Introduction, Key :			

	Week -IV	Dictionaries	Value Pairs, working with dictionaries, dictionary functions and methods	Manipulation of dictionary with functions :  Program to count the frequency of a list element using a dictionary.	1. lecture cum Discussion Method  2. Demonstration Method	White board, marker,duster, pointer,computer system, Python Enaconda distribution software
November	Week -I  Week-II  Week-III  Week-IV	Working with NumPy	Introduction, NumPy Arrays, NumPyDatatypes,creating Numpy arrays  working with NumPyarrays,  Airthmetic operations on numpy arrays  Functions with numpy arrays	Practical related to array  NumPyArrays , Array slices etc.  (creating 1D and 2D arrays, operations performed on arrays)	1. lecture cum Discussion Method  2. Demonstration Method	White board, marker,duster, pointer,computer system, Python Enaconda distribution software
December	Week-I  Week-II  Week-III  Week-IV	Emerging Trends  <b>Syllabus completion</b>	Artificial intelligence, robotics,  big data,  internet of things , cloud computing,  grid computing , blockchain technology	Time Bound Team Based activity related to different topics.	1. lecture cum Discussion Method	White board, marker,duster, pointer,computer system,  internet explore software,  course book
Jan,Feb		Revision				

SUBJECT -TYPOGRAPHY & COMPUTER APPLICATION

MONTH	WEEK	TOPIC	SUB TOPIC	ACTIVITIES	METHODOLOGIES	INSTRUCTIONAL/TEACHING AIDS
April	Week-I	INTRODUCTION TO TYPOGRAPHY	INTRODUCTION , Learning Objectives The Typewriter , Origin. of Typewriter, Importance of Typewriter/Computer ,Categories of Typewriters ,	History of typewriter will be given  Group discussion will be given on different types of typewriter	1. Lecture cum Discussion Method 2. Illustration Method	White board, marker,duster, pointer, computer system, flash cards course book
	Week-II		Standard Typewriter ,Noiseless Typewriter ,Portable Typewriter , Electric Typewriter ,Electronic Typewriter , Computers , Laptops	Training will be given to students for touch method of typing		
	Week-III		Introduction ,Objectives ,Keyboard ,QWERTY Keyboard , Key Types , Character Keys ,Modifier key, Sitting Posture ,Chair & Table Height Guideline ,Placement of Machine ,Methods of Keyboard Operation ,Sight Method Merits of Sight Method Demerits of Sight Method ,Touch Method of Typing Merits of Touch Method Demerits of Touch Method	Students will do practice of different rows using touch method in typing master  After learning all rows of keyboard paragraph will be given for practice	1. Lecture Method cum demonstration method	
	Week-4	Keyboard Operations				
May	Week-1	Computer Hardware	Input devices, Output devices,	Hardware parts will be shown to students in lab	1. Lecture cum & Demonstration	Black board , chalk , duster, pointer,computer

	Week-2	Windows Operating System	Serial ports, Parallel Ports	Serial ports and parallel port of computer will be shown to students	Method 2. Brain Storming	system
	Week-3		Introduction, Objectives , Logging On ,Switching between Accounts ,Features of the Windows System , Desktop , Icon , Window ,Dialogue Box , Start Menu ,Task Bar , Tab Menu ,Opening & Closing Application , Manipulating Windows, Maximize , Minimize , Resize , Using Computer Folder , Using window Explorer ,Navigation Pane ,Details Pane , Preview Pane	Practical knowledge will be given to students based on this chapter  Students will save their files in different memory locations by using their own created folders	1. Lecture Method cum demonstration method	Black board , chalk , duster, pointer, computer system, MS Office
	Week-4		Control Panel , Locating Files and Folders , Search for file or Folder, creating a folder , Deleting a file or folder , Renaming a file or folder			
June		Summer - Break				
July	UT +  Week-1	Introducti on to Office	,Introduction to Word, Introduction to Excel, Introduction to Power Point, Introduction to Outlook ,Working with the Office Assistant ,  Office Short Cut Bar, Customizing the Office Shortcut Bar ,Exit the office shortcut bar	Creating documents ,editing documents with different features of words ,excel and power point	1. lecture cum Discussion Method  2. Demonstration Method	White board, marker,duster, pointer,computer system, MS office
	Week-2		Beginning with word a) Edit document b) Format document c) Tables & Graphics Documents prepared using MS word, Application window of MS Word,			

	Week-3	MS Word(part -1)		Creating documents ,editing documents with different features of words will be taught to students	Demonstration Method	White board, marker,duster, pointer,computer system, MS office
July	Week-4	MS Word(part -1)	Creating a new blank document , Entering text in a document file , Inserting a text , Deleting a text, Selecting a text, Copy & paste text , Drag and drop text ,Finding a text ,	Creating documents ,editing documents with different features of words will be taught to students	1. lecture cum Discussion Method 2. Demonstration Method	White board, marker,duster, pointer,computer system, MS office software
August	Week-1		Replacing text Using find and replace text , Auto correction , Correction of mistakes , Save As Command , Using Save As command , Using spell check features , Using Grammar check feature	Students will practice practical concepts in MS word		
	Week -2		<p>FORMATTING WITH WORD</p> <p>Formatting the text , Changing the text case , Applying bullets &amp; Numbers ,Inserting a new list , Selecting an alternate bullet or number or style , Using a symbol as a bullet ,Changing the bullet colour, Changing the text alignment, Using indents and tabs , Modifying the default settings , Setting a tab stop ,Hanging indent , Setting left, center, right and decimal tab stops</p>			
	Week-3		Working with text boxes , Using styles and themes , Moving the shapes , Changing of colour scheme , Managing Documents			

	Week-4	MS WORD-PART-2	and customizing word , Document Properties , Using Thesaurus , Advanced Word Features , Creating & Using auto text entries , Working with Tables, Adding footer and header , Adding Footnotes & Endnotes, adding border , Mail Merge	Apart from using different features of WORD students will be learn and practice :  Mail merge, work with tables, shapes , images, lists etc.	1. lecture cum Discussion Method  2. Demonstration Method	Black board , chalk , duster, pointer, computer system, MS Office
September		Revision + Half year Examination				
October	Week-1  Week-2  Week-3	Communication Skills	Session 1: Introduction to Communication Session 2: Verbal Communication Session 3: Non-verbal Communication  Session 4: Pronunciation Basics Session 5: Communication Styles — Assertiveness Session 6: Saying No — Refusal Skills  Session 7: Writing Skills — Parts of Speech  Session 8: Writing Skills — Sentences Session 9: Greetings and Introduction Session 10: Talking about Self  Session 11: Asking Questions	Different types of communication will be learn with the help of different activities	1. lecture cum Discussion Method  2. Brain storming method	White board, marker,duster, pointer,computer system



	Week-4	Self-management Skills	<p>Session 12: Talking about Family</p> <p>Session 13: Describing Habits and Routines Session 14: Asking for Directions</p> <p>Session 1: Strength and Weakness Analysis</p> <p>Session 2: Grooming</p> <p>Session 3: Personal Hygiene</p> <p>Session 4: Team Work</p> <p>Session 5: Networking Skills</p> <p>Session 6: Self-motivation</p> <p>Session 7: Goal Setting</p> <p>Session 8: Time Management</p>	<p>Time bound activities will be given to students to learn</p> <p>Group discussion will be given to understand the topics</p>	<p>1. lecture cum Discussion Method</p> <p>2. Brain storming method</p>	White board, marker,duster, pointer
December	Week-1	Information and Communication Technology Skills	<p>Session 1: Introduction to ICT</p> <p>Session 2: Basic Interface of LibreOffice Writer 1</p> <p>Session 3: Saving, Closing, Opening and Printing Document</p> <p>Session 4: Formatting Text in a Word Document Session 5: Checking Spelling and Grammar</p> <p>Session 6: Inserting Lists, Tables, Pictures, and Shapes</p> <p>Session 7: Header, Footer and Page Number</p> <p>Session 8: Tracking Changes in LibreOfficeWriterUnit 4:</p>	<p>Creating documents ,editing documents with different features of words will be taught to students</p> <p>Students will practice practical concepts in libre Office</p> <p>Apart from using different features of Libre Office students will be learn and</p>	<p>1. lecture cum Discussion Method</p> <p>2. Demonstration Method</p>	White board, marker,duster, pointer,computer system, Libre Office
	Week-2					

				practice : Mail merge, work with tables, shapes , images, lists etc.		
Decemb er	Week- 3	Entrepren eurship Skills	Session 1: Introduction to Entrepreneurship Session 2: Values of an Entrepreneur Session 3: Attitude of an Entrepreneur	Time Bound Team Based activity related to different topics.	1. lecture cum Discussion Method	White board, marker,duster, pointer,computer ,  internet explore software, Internet,  course book
January	Week- 4		Session 4: Thinking Like an Entrepreneur Session 5: Coming Up with a Business Idea Session 6: Understanding the Market Session 7: Business Planning			
	Week- 1	Green Skills	Session 1: Sectors of Green Economy Session 2: Policies for a Green Economy Session 3: Stakeholders in Green Economy Session 4: Government and Private Agencies	1. Prepare posters on green Economy  2. Motivate students to plant a tree.  3. Motivate students to buy energy efficient products  4. Motivate students to do environment friendly jobs in their routine life. etc.	1. lecture cum Discussion Method  2. Brain storming method	White board, marker,duster, pointer,computer system, Google,Internet ,cou rse book
	Week- 2	(Syllabus completio n) + Revesion				
Feb		Revision				

**SUBJECT- MATHS**

<b>MONTH</b>	<b>CHAPTER</b>	<b>TOPICS</b>	<b>Art Integrated activity</b>	<b>METHODOLOGY</b>	<b>TEACHING AIDS/INSTRUCTIONAL AIDS</b>
<i>APRIL</i>					
WEEK 1 WEEK 2	<b>Sets</b>	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 of sets. Complement of a set. Properties of Complement.	Make attractive Venn diagram to show: 1. $A \cup B$ 2. $A - B$ 3. Only A 4. Draw a sketch of John venn	Explanation by Venn diagram, Learning by doing.	Chalk board, Duster, Smart Class
<i>APRIL</i> WEEK 3 WEEK 4	<b>Relations and Functions</b>	Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of real of itself (up to $R \times$	1. <i>To distinguish between a relation and function using thread and bangle.</i> 2. <i>Draw an attractive graph of</i>	Demonstration, Graphic organizers, problem solving.	Chalk board, duster, arrow diagram on chart, smart class.

<p>MAY WEEK 1 WEEK 2</p>	<p><b>Trigonometric Functions</b></p>	<p>R x R). Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions.</p> <p>Positive and</p>	<p><i>constant function,</i> <i>3.modulus function</i> <i>4.signum function using graph and thread</i></p> <p>Draw curve of:</p> <ol style="list-style-type: none"> <li>1. sine</li> <li>2. cosine</li> <li>3. Tangent with the help of sketch or thread</li> </ol> <p>make a A4 Size sheet and write all formula of trigo</p>		
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		<p>Negative angles.  Measuring angles in radians and degrees and conversion from one measure to another.  Definition of trigonometric functions with the help of unit circle. Truth of the identity <math>\sin^2x + \cos^2x = 1</math>, for all <math>x</math>. Signs of trigonometric functions.  Domain and range of trigonometric functions and their graphs.  Expressing <math>\sin(x \pm y)</math> and <math>\cos(x \pm y)</math> etc. in the terms of <math>\sin x</math>, <math>\sin y</math>, <math>\cos x</math> and <math>\cos y</math> and their simple applications.  Deducting all the identities like:  <math>\tan(x \pm y)</math>, <math>\cot(x \pm y)</math>, <math>\sin \alpha \pm \sin \beta</math>, <math>\sin 2x</math> etc.</p>			
<i>MAY</i> <i>WEEK 1</i>	<b>Complex Numbers</b>	Need for complex numbers,	1. make a curve of		Chalk board,

<i>WEEK 2</i>	<b>and Quadratic Equations</b>	especially $\sqrt{-1}$ , to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane	parabola using sketch		Duster, Smart Class
<i>WEEK 3</i> <i>WEEK 4</i>	<b>Linear Inequalities</b>	Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.	To verify that the graph of a given inequality, say $5x + 4y - 40 < 0$ , of the form $ax + by + c < 0$ , $a, b > 0$ , $c < 0$ represents only one of the two half planes.		Chalk board, Duster, Smart Class
<b>UNIT TEST</b>					
<i>JULY</i> <i>WEEK 1</i> <i>WEEK 2.</i>	<b>Permutations and Combinations</b>	Fundamental principle of counting. Factorial $n$ . ( $n!$ ) Permutations and combinations, derivation of	1.To find the number of ways in which three cards can be selected from given five cards.	Explanation, Brain storming	Chalk board, Duster, Smart Class
<i>WEEK 3</i>	<b>Binomial</b>	Formulae			

<i>WEEK 4</i>	<b>Theorm</b>	permutation and combination, simple applications.  History, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.	2. Make a diagram to show all the ways of approaching school 3. make a game on Permutations  To construct a Pascal Triangle and to write binomial expansion		
<i>SEPTEMBER</i>	Revision and Half Yearly Exams				
<i>AUGUST WEEK 1 WEEK 2</i>	<b>Sequence and Series</b>	Sequence and series. Arithmetic Mean (A.M.) Geometric Progression (G.P.), general terms of G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M. Formulae for the sums.	1. To obtain formulae for the sum of squares of first n natural numbers. 2. Make pattern on AP 3. Make PATTERN ON G.P 3. Fibonacci spiral art	Discovery Method, Problem Solving, Project	Chalk board, Duster, Smart Class, Models
<i>SEPTEMBER— OCTOBER WEEK 1 WEEK 2</i>	<b>Introduction to Three-dimensional Geometry</b>		1. To make model of octants 2. make any 3d sketch /pattern		

<p>WEEK 3 WEEK 4</p>	<p><b>Probability</b></p>	<p>Revision and Half Yearly Exams</p> <p>Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points</p> <p>Random experiments, outcomes, sample spaces (set representation). Events, occurrence of events, 'not', 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>	<p>/graphics 3.show derivation of distance formula</p> <p>1.To show the sample space through coin when it is tossed once, two times, three times, four times. 2.Make a card game using probability</p>		
<p>NOVEMBER WEEK 1</p>	<p><b>Straight lines</b></p>	<p>Brief recall of two dimensional geometry from</p>	<p>1. Make a stained glass</p>	<p>Heuristic Method, Project,</p>	<p>Chalk board, Duster,</p>



<p>WEEK 2</p>		<p>earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point-slope form, simple-intercept form, two-point form, intercept form ,Distance of a point from a line.</p>	<p>window</p> <ol style="list-style-type: none"> <li>2. Prepare any art work using straight line and curve</li> <li>3. Make any optical illusion through line</li> </ol>	<p>Discussion, Problem Solving,</p>	<p>Smart Class</p>
<p>WEEK 3 WEEK 4</p>	<p><b>Conic Sections</b></p>	<p>Sections of a cone: ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.</p>	<p>To construct different types of conic</p> <ol style="list-style-type: none"> <li>1. Circle</li> <li>2. Ellipse</li> <li>3. Parabola</li> <li>4. Make fun images using conics</li> </ol>		

<p><i>DECEMBER</i> <i>WEEK 1</i> <i>AND 2</i></p>	<p><b>Limits and Deratives</b></p>	<p>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.</p>	<p>Verification of geometrical significance of derivatives.</p>	<p>Problem Solving, Explanation</p>	<p>Chalk board, Duster, Smart Class</p>
<p><i>WEEK 3</i> <i>WEEK 4</i></p>	<p><b>Statistics</b></p>	<p>Definition of derivative relate it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivates of polynomial and trigonometric functions. Measures of Dispersion: Range, Mean Deviation, variance and standard deviation of ungrouped/group ed data.</p>			

JANUARY	UNIT TEST-2
FEB	REVISION AND ANNUAL EXAMS

**SUBJECT - PHYSICAL EDUCATION**

Month	Chapter	Sub Topics	Activities	Methodology	Teaching Aids	
April	1. changing trends & physical education	i) Meaning & definition of physical education	Make a chart tabulation on the aims and objectives of physical education.	Lecture method	<ul style="list-style-type: none"> <li>Green board</li> <li>Educomp smart board.</li> </ul>	
May	2. Olympic value education	<ul style="list-style-type: none"> <li>Aims and objectives of physical education</li> <li>Career option in physical education</li> <li>Competition in various sports at national and international level</li> <li>Khelo - India program</li> </ul>	Make a project on carrier options of physical education.	Explanation method	<ul style="list-style-type: none"> <li>Green board</li> <li>Educomp smart board.</li> </ul>	
	3. Yoga	<ul style="list-style-type: none"> <li>Olympics, Paralympics and special Olympics</li> <li>Olympic, symbols, ideals, objectives &amp; value of Olympics</li> <li>International Olympic committee.</li> <li>Indian Olympic association.</li> </ul>	Make a flash card on competitions in various sports at national and international level.			
	June	4. Physical education & sports for CWSN children with specific need divang.	<ul style="list-style-type: none"> <li>Olympics, Paralympics and special Olympics</li> <li>Olympic, symbols, ideals, objectives &amp; value of Olympics</li> <li>International Olympic committee.</li> <li>Indian Olympic association.</li> </ul>	Make a chart on Olympic symbols.	Interactive method	<ul style="list-style-type: none"> <li>Green board</li> </ul>
		5. Physical	<ul style="list-style-type: none"> <li>Olympics, Paralympics and special Olympics</li> <li>Olympic, symbols, ideals, objectives &amp; value of Olympics</li> <li>International Olympic committee.</li> <li>Indian Olympic association.</li> </ul>	Make a project on Olympic, Para Olympic and special Olympics.		
July		<ul style="list-style-type: none"> <li>Meaning &amp; importance of yoga</li> <li>Elements of yoga.</li> <li>Introduction – Asanas, pranayam, meditation &amp;</li> </ul>	Make a chart on the asanas, pranayamas,	Explanation method	<ul style="list-style-type: none"> <li>Green board</li> </ul>	

<p>August</p>	<p>fitness, wellness &amp; lifestyle</p> <p>6. test, measurement &amp; evaluation</p>	<p>yogic kriyas. Summer break</p> <ul style="list-style-type: none"> <li>• Meaning &amp; importance of physical fitness, wellness &amp; lifestyle</li> <li>• Components of physical fitness and wellness</li> <li>• Components of health related fitness.</li>   <li>• Aims and object of adaptive physical education.</li> <li>• Organization promoting adaptive sports (special Olympics Bharat, Paralympics, Deaflympics)</li> <li>• Concept of inclusion, its need and implementation.</li> <li>• Role of various professionals for children with special need.</li> <li>• Counsellar,</li> </ul>	<p>meditation and yogic kriyas. Make a project on elements of yoga.</p> <p>Make a chart on the components of physical fitness and wellness.</p> <p>Make a project on the importance of physical fitness, wellness and lifestyle.</p> <p>Make a flash card on health related fitness.</p> <p>Make a flashcard on the role of various professionals for children with special needs.</p> <p>Make a chart on aims and objectives adaptive physical education.</p> <p>Make a project on organization promoting adaptive sports.</p>	<p>Interactive method</p> <p>Explanation method</p> <p>Explanation and brain storming method</p>	<ul style="list-style-type: none"> <li>• Green board</li> </ul>
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		<p>occupational, therapist physiotherapist, physical education teacher, speech, therapist &amp; special education.</p>		Explanation method	
	7. fundamentals of anatomy physiology & kinesiology in sports.	<ul style="list-style-type: none"> <li>• Leadership qualities &amp; role of a leader</li> <li>• Creating leaders through physical education</li> <li>• Meaning, objectives &amp; types of adventure sports ( rock climbing, tracking, river, rafting, mountaineering, surfing and paragliding.</li> </ul>			<ul style="list-style-type: none"> <li>• Green board</li> </ul>
September	8. Fundamentals of kinesiology and biomechanical in sports	<ul style="list-style-type: none"> <li>• Safety measures to prevent sports injuries.</li> </ul>	<p>Make a flashcard on leadership qualities.</p> <p>Make a chart on the types of adventure sports( rock climbing, trekking, river rafting, mountaineering, surfing and paragliding).</p>	Demonstration method	<ul style="list-style-type: none"> <li>• Green board</li> </ul>
October	9. psychology & sports .	Revision		Explanation method	
	10. Training and doping in sports.	<ul style="list-style-type: none"> <li>• Defining and importance of anatomy, physiology &amp; kinesiology.</li> <li>• Function of speleton system and circulatory system.</li> <li>• Properties and function of muscles.</li> <li>• Equilibrium – dynamic &amp; static and centre of</li> </ul>	<p>Make a project on safety measures to prevent sports injuries.</p> <p>Make a chart measurement of health related</p>		<ul style="list-style-type: none"> <li>• <b>Green board</b></li> </ul>

November		<p>gravity and its application in sports</p> <ul style="list-style-type: none"> <li>• Definition &amp; importance of psychology in physical education &amp; sports.</li> <li>• Adolescent problems &amp; their management.</li> <li>• Meaning and concept of sports training.</li> <li>• Principle of sports training.</li> <li>• Warming up &amp; limbering down.</li> <li>• Skill, technique &amp; style</li> <li>• Concept &amp; classification of doping</li> </ul>	<p>fitness.</p> <p>Make a chart showing importance measurement and evaluation in sports.</p> <p>Make a flashcard on the classification of bones and types of bones.</p> <p>Make a project on the functions and structures of respiratory and circulatory systems.</p> <p>Make a chart on equilibrium- dynamic and static and centre of gravity</p> <p>Make a project on the development characteristics at different stages of development.</p> <p>Make a flashcard on adolescent problems and their management. Make a chart on difference between Growth and development.</p> <p>Make a flashcard of the principles of sports training.</p>	<p>Explanation method</p>	<ul style="list-style-type: none"> <li>• <b>Green board</b></li> <li>• <b>Educomp smart board</b></li> </ul>
December					
January					
February		<p><b>Annual Examination</b></p>	<p>Make a chart on the Warming up and Limbering down.</p>		

SUBJECT - PHYSICS

Month	WEEK	Topic	Sub-Topic	Activities	Methodology	Teaching-Aids
APRIL	WEEK 1	PHYSICAL WORLD AND ENVIRONMENT	Basic mathematics including graphs and basic calculus	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.	EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
	WEEK 2		Need for measurement: Units of measurement; systems of units;SI units, fundamental and derived units. Significant figures.			
	WEEK 3		Dimensions of physical quantities, dimensional analysis and its applications.			
	WEEK 4	MOTION IN A STRAIGHT LINE	Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion,			
MAY	WEEK1	MOTION IN A STRAIGHT LINE	Uniform and non-uniform motion, and instantaneous velocity, uniformly accelerated motion,	To measure diameter of a given wire and thickness of a given sheet using screw gauge.	EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
	WEEK 2		velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment).			

JUNE	WEEK 3	MOTION IN A PLANE	Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number;	To determine volume of an irregular lamina using screw gauge.	EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
	WEEK 4		<b>PRE VACATION EXAMS</b>  <b>SUMMER VACATION</b>			
	WEEK 1		Addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components,			
	WEEK 2		Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration-projectile motion, uniform circular motion.			
JULY	WEEK 3	LAWS OF MOTION	Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse;	To determine radius of curvature of a given spherical surface by a spherometer.	EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
	WEEK 4		Newton's third law of motion.Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces,			
	WEEK 1		Static and kinetic friction, laws of friction, rolling friction, lubrication.Dynamics of uniform circular motion: Centripetal force,  Examples of circular motion (vehicle on a level circular road, vehicle on a banked road).  Work done by a constant force and a			
AUGUST	WEEK 4					CHALK,DUSTER, GREEN



SEPTEMBER	WEEK 2	WORK,ENERGY AND POWER	variable force; kinetic energy, work- energy theorem, power.		EXPLANATION DISCUSSION OBSERVATION	BOARD,MODEL, SMART BOARD
	WEEK 3		Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces, motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.			
	WEEK 4		<b>EXAMINATIONS</b>			
		Centre of mass of a two-particle system, momentum conservation and Centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications.				
OCTOBER	WEEK 1	System of particles and Rotational motion	Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).	EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD	
	WEEK 2			EXPLANATION DISCUSSION OBSERVATION		
	WEEK 3					
	WEEK 4		Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth.	EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD	
			Gravitational potential energy and gravitational			

NOVEMBER	WEEK 1	Gravitation	potential, escape velocity, orbital velocity and weightlessness				
			Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy.		EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD	
	WEEK 2	Mechanical properties of solids	Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure.				
			Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.	To determine Young's modulus of elasticity of the material of a given wire.	EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD	
	WEEK 3	Mechanical properties of fluids	Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity.	To find the force constant of a helical spring by plotting a graph between load and extension.	EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD	
			Heat transfer- conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law .		EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD	
	WEEK 4	THERMAL PROPERTIES OF MATTER	Thermal equilibrium and				

DECEMBER	WEEK 1	THERMODYNAMICS	definition of temperature zeroth law of thermodynamic heat, work and internal energy. I law of thermodynamic Second law of thermodynamics: gaseous state of matter, change of condition of gaseous state - isothermal, adiabatic, reversible, irreversible, and cyclic processes. Eqn of state of a perfect gas, work done in compressing a gas.		EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
	WEEK 2				EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
	WEEK 3		Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.		EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
	WEEK 4		periodic motion displacement as a function of time, periodic functions and their application.		EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
JANUARY	WEEK 1	KINETIC THEORY OF GASES	Simple harmonic motion phase; oscillations of a loaded spring- restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.	To study the relation between frequency and length of a given wire under constant tension using sonometer.	EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
	WEEK 2					CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD
	WEEK 3	OSCILLATIONS	Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves,		EXPLANATION DISCUSSION OBSERVATION	CHALK,DUSTER, GREEN BOARD,MODEL, SMART BOARD

			reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.			
	WEEK 4		<b>REVISION</b>			

**Subject: -Psychology**

Month	Week	Topic	Sub -Topic	Teaching Aids
April	Week -1	<b>What is Psychology?</b>	<b>1.</b> Introduction <b>2.</b> What is psychology <ul style="list-style-type: none"> <li>• Psychology as discipline</li> <li>• Psychology as an natural science</li> <li>• Psychology as a social science</li> </ul>	Blackboard, Chalk , Duster, Course Book
	Week - 2		<b>3.</b> Understanding mind and behaviour <b>4.</b> Popular Nations about the Discipline of psychology <b>5.</b> Evolution of psychology	
	Week -3		<b>6.</b> Development of psychology in India <b>7.</b> Branches of psychology	
	Week -4		<b>8.</b> Psychology and other disciplines <b>9.</b> Psychology in everyday life	
May	Week - 1	<b>Methods of Enquiry in Psychology</b>	<b>1.</b> Introduction <b>2.</b> Goals of psychological enquiry <ul style="list-style-type: none"> <li>• Steps in conducting scientific research</li> <li>• Alternatives</li> <li>• Paradigms of Research</li> </ul>	Blackboard, Chalk , Duster, Course Book
	Week -2		<b>3.</b> Nature of psychological data <b>4.</b> Some important methodsin Psychology <ul style="list-style-type: none"> <li>• Observation method</li> </ul>	

			<ul style="list-style-type: none"> <li>• Experimental method</li> <li>• Correlation Research</li> </ul>	
	Week -3		<ul style="list-style-type: none"> <li>• Survey Research</li> <li>• Psychological Testing</li> <li>• Case Study</li> </ul> <b>5. Analysis of Data</b> <ul style="list-style-type: none"> <li>• Quantitative Method</li> <li>• Qualitative Method</li> </ul>	
	Week -4		<b>6. Limitations of Psychological Enquiry</b> <b>7. Ethical Issues</b>	
June			<b>Summer Break</b>	
July	Week-1	<b>Human Development</b>	<b>1. Introduction</b> <b>2. Meaning of Development</b> Life-Span Perspective on Development Factors Influencing Development	Blackboard, Chalk , Duster, Course Book
	Week-2		<b>3. Context of Development</b> <b>4. Overview of Developmental Stages</b> <ul style="list-style-type: none"> <li>• Prenatal Stage</li> </ul>	
	Week -3		<ul style="list-style-type: none"> <li>• Infancy</li> <li>• Childhood</li> </ul>	
	Week -4		<ul style="list-style-type: none"> <li>• Challenges of Adolescence</li> <li>• Adulthood and Old Age</li> </ul>	
August	Week-1	<b>Sensory, Attentional and Perceptual Processes</b>	<b>1. Introduction</b> <b>2. Knowing the world</b> <b>3. Nature and varieties of Stimulus</b>	Blackboard, Chalk , Duster, Course Book
	Week-2		<b>4. Sense Modalities</b> <ul style="list-style-type: none"> <li>• Functional limitation of sense organs</li> </ul>	

			<b>5. Attentional Processes</b> <ul style="list-style-type: none"> <li>• Selective Attention</li> <li>• Sustained Attention</li> </ul>	
	Week-3		<b>6. Perceptual Processes</b> <ul style="list-style-type: none"> <li>• Processing Approaches in Perception</li> </ul> <b>7. The Perceiver</b> <b>8. Principles of Perceptual Organisation</b>	
	Week-4		<b>9. Perception of Space, Depth and Distance</b> Monocular Cues and Binocular Cues <b>10. Perceptual Constancies</b> <b>11. Illusions</b> <b>12. Socio-Cultural Influences on Perception</b>	
September	Revision		Half Yearly	
October	Week- 1	<b>Learning</b>	<b>1. Introduction</b> <b>2. Nature of Learning</b> <b>3. Paradigms of Learning</b>	Blackboard, Chalk , Duster, Course Book
	Week-2		<b>4. Classical Conditioning</b> <ul style="list-style-type: none"> <li>• Determinants of Classical Conditioning</li> </ul> <b>5. Operant/Instrumental</b> <ul style="list-style-type: none"> <li>• Conditioning</li> <li>• Determinants of Operant Conditioning</li> <li>• Key Learning Processes</li> </ul>	
	Week -3		<b>6. Observational Learning</b> <b>7. Cognitive Learning</b> <b>8. Verbal Learning</b>	
	Week-4		<b>9. Skill Learning</b> <b>10 Factors Facilitating Learning</b> <b>11. Learning Disabilities</b>	
November	Week -1	<b>Human Memory</b>	<b>1. Introduction</b> <b>2. Nature of memory</b>	Blackboard, Chalk , Duster, Course Book

	Week-2		<p><b>3.</b> Information Processing Approach : The Stage Model</p> <p><b>4.</b> Memory Systems : Sensory, Short-term and Long-term Memories</p>	
	Week-3		<p><b>5.</b> Levels of Processing</p> <p><b>6.</b> Types of Long-term Memory</p> <ul style="list-style-type: none"> <li>• Declarative and Procedural;</li> <li>• Episodic and Semantic</li> </ul>	
	Week-4		<p><b>7.</b> Nature and Causes of Forgetting</p> <ul style="list-style-type: none"> <li>• Forgetting due to Trace Decay, Interference and Retrieval Failure</li> </ul> <p><b>8.</b> Enhancing Memory Mnemonics using Images and Organisation</p>	
December	Week-1	<b>Thinking</b>	<p><b>1.</b> Introduction</p> <p><b>2.</b> Nature of Thinking</p> <ul style="list-style-type: none"> <li>• Building Blocks of Thought</li> </ul>	Blackboard, Chalk , Duster, Course Book
	Week-2		<p><b>3.</b> The Processes of Thinking</p> <p><b>4.</b> Problem Solving</p> <p><b>5.</b> Reasoning</p>	
	Week-3		<p><b>6.</b> Decision-making</p> <p><b>7.</b> Nature and Process of Creative Thinking</p> <ul style="list-style-type: none"> <li>• Nature of Creative Thinking</li> <li>• Process of Creative Thinking</li> </ul>	
	Week-4		<p><b>8.</b> Thought and Language</p> <p><b>9.</b> Development of Language and Language Use</p>	
January	Week-1	<b>Motivation and Emotion</b>	<p><b>1.</b> Introduction</p> <p><b>2.</b> Nature of Motivation</p>	Blackboard, Chalk , Duster, Course Book

	Week-2		<b>3. Types of Motives</b> <ul style="list-style-type: none"> <li>• Biological Motives</li> <li>• Psychosocial Motives</li> </ul> <b>4. Maslow's Hierarchy of Needs</b>	
	Week-3		<b>5. Nature of Emotions</b> <b>6. Expression of Emotions</b> <ul style="list-style-type: none"> <li>• Culture and Emotional Expression</li> <li>• Culture and Emotional Labelling</li> </ul>	
	Week-4		<b>7. Managing Negative Emotions</b> <b>8. Enhancing Positive Emotions</b>	
February +March	Revision	<b>Practical (Projects, experiments, small studies)</b>	Annual examination	

#### SUBJECT - Yoga

Month	Week	Topic	Sub- topics	Art-Integrated	Methodology	Teaching - Aids
<b>APRIL</b>	<b>week-1,2</b>	Unit-1	Communication Skills	Practice of Halasana, Pawanmuktasana	Explanation	Chalk Board , duster and Smart - class
	<b>week-3,4</b>	Unit-2	Self Management Skills			
<b>May</b>	<b>Week-1,2</b>	Unit-3	ICT-Skills	Practice of Asanas	Yoga Activities Explanation	Chalk Board , duster and Smart - class
	<b>Week-3,4</b>	Unit-4	Entrepreneurial Skills			
<b>June</b>		<b>SUMMER BREAK</b>				
<b>July</b>	<b>Week-1,2</b>	Unit-5	Green Skills	Practice of Dhyana Mudra	Revise and Explanation	Chalk board , duster and Smart - class
	<b>Week-3,4</b>	Revision	Green Skills			
<b>August</b>	<b>Week-1</b>	(Part-B) Unit-1	Introduction to Yoga and Yogic Practices-1	1) Yoga Etymology, definition, Aim, objective and misconception text. 2)Yoga Origin, History and Development. 3)Rules and Regulation to be followed by yoga practitioners.		Chalk board , duster and Smart - class
	<b>Week-2</b>					
	<b>Week-3</b>					



	<b>Week-4</b>			4)Introduction to major schools of yoga (Janan, Yoga Bhakti,Yoga Karma, Patanjali, Hatha. 5)Introduction to yogic practices (SukshamaVyayama, Surya Namaskar and Asanas).	
<b>September</b>		<b>REVISION</b>			
<b>October</b>	<b>Week-1</b>	Unit-2	Introduction to Yoga Texts-1	1)Introduction and study of patanjali Yoga sutra including memorization of selected Sutra.	Chalk board , duster and Smart – class
	<b>Week-2</b>			2)Introduction and study of Gheranda Samhita.	
	<b>Week-3</b>			3)Introduction of HataPradpika.	
	<b>Week-4</b>			4) Introduction and study of Bhagavad Gita including memorization of selected Slokas.	
<b>November</b>	<b>Week-1</b>	Unit-3	Introduction to Yoga and Yogic Practices-2	1) Brief introduction to human Body. 2) Role of Yoga for health promotion.	Chalk board ,duster and Smart – class
	<b>Week-2</b>			3)Yogic attitudes and practices. 4) Holistic approach of Yoga towards the health and diseases.	
	<b>Week-3</b>			5) Introduction Yoga diet and its relevance and importance in Yoga Sadhana. 6) Dincharya and Ritucharya with respect of Yogic lifestyle.	
	<b>Week-4</b>				
<b>December</b>		Unit-5	Yoga for Health Promotion-2		

<b>January</b>		Practicals and lab Activities	Demonstration of skill competency in lab activities and Surya Namaskar			
<b>February</b>		Revision	Revision			
<b>March</b>			Annual Exam			