Mahatma Gandhi Mission Primary & Seconday School

Phase – II, Sector – 8, Nerul, Navi Mumbai

YEAR PLAN 2025-2026

STD: -XII		SUB:-Physics		Teacher: - Mrs. Mayuri Tonge
MONTH	**NO. OF DAYS**	**LESSON**	**TOPIC**	**Activity**
MARCH	17	14.Electronic devices	Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic and extrinsic semiconductors- p and n type, p-n junction	To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items.
			Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction diode -diode as a rectifier.	Use of multimeter to see the unidirectional flow of current in case of a diode and an LED and check whether a given electronic component (e.g.,
APRIL	23	1.Electric charges and fields	Electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field.	To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
			Uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).	To find resistance of a given wire / standard resistor using metre bridge.
		2. Electrostatic Potential and Capacitance	Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field.	To verify the laws of combination (series) of resistances using a metre bridge.
			Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarization, capacitors and capacitance, in series and in parallel.	To measure resistance, voltage, and check continuity of a given circuit using a multimeter.
CT1 21 to 28 June 2025				

JUNE	**23**	3:Current electricity	Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity,	To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
			temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge.	To assemble household circuit comprising three bulbs, three switches, a fuse and a power source.
		4: Moving Charges and Magnetism	Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoid , force on a moving charge in uniform magnetic and electric fields.	To assemble the components of a given circuit.
			UT1 5/7/25 TO 11/07/25 Chapter 1,2,3,14	
JULY	**21**		Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer- its current sensitivity and conversion to ammeter and voltmeter.	
		5: Magnetism and Matter	Bar magnet, as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines	To identify diode, LED, a resistor, and a capacitor from a mixed collection of such items.

			Magnetic properties of materials- Para-, dia- and ferro -magnetic substances with examples, Magnetization of materials, effect of temperature	To study effect of intensity of light on an LDR.
AUGUST	19			
		6& 7: Electromagnetic Induction Electromagnetic And Alternating current	induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction. Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance	Use of multimeter to see the unidirectional flow of current in case of a diode ,and an LED and check whether a given electronic components is in working state.
			LCR series circuit (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer.	
		8: Electromagnetic Waves	Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses	
Half Yearly Exam 13/09/25 to 22/09/25 Chapter 1 to 8				
SEPTEMBER	16	9: Ray Optics and Optical Instruments	Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers, refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula, magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism.	To find the focal length of a convex mirror, using a convex lens.
		10: Wave Optics	Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.	To find the focal length of a concave lens, using a convex lens.
			Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle.	To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation

MONTH		CHAPTER	TOPIC	PRACTICAL/ACTIVITY
			Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light, diffraction due to a single slit, width of central maxima (qualitative treatment only).	To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v
OCTOBER	13	11: Dual Nature of Radiation and Matt	Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light.	Physics Investigating project work submission
			Experimental study of photoelectric effect Matter waves-wave nature of particles, de-Broglie relatio	**Activity**
		12: Atoms	Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen atom,	
			Expression for radius of nth possible orbit, velocity & energy of electron in nth orbit, hydrogen line spectra	
		13 Nuclei	Composition and size of nucleus, nuclear force Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion.	
			Diwali Vacation 17/10/25 TO 01/11/25	
NOVEMBER	23		Revision and Sample paper Solving	
CT3 25/11/25 TO 30/11/25				
Preboard Exam I 05/12/25 TO 17/12/25				
DECEMBER	12		Revision and Sample paper Solving	
Preboard Exam_II 3/01/26 TO 9/01/26				
JANUARY	15		Revision and Sample paper Solving	
FEBRUARY			**AISSCE 25-26**	

Mahatma Gandhi Mission Primary & Seconday School

Phase – II, Sector – 8, Nerul, Navi Mumbai

YEAR PLAN 2025-2026

STD: XII   **SUB: PHYSICAL EDUCATION**   **Teacher: Ms. Manisha**

MONTH	W.D	TOPIC	LESSION	ACTIVITY
MARCH	17	**Unit-1 Management of Sporting Events**	1.Functions of Sports Events managements. 2.Various commitees and Their Responsibility 3.Fixtures and their Procedure. 4.Intramural And Extramural . 5.Common sports Programme.	Draw the fixture of 18 teams on the basis of knockout tournament
		UNIT-II Children"s and womens in spports	1.Excercis guidelines of WHO for different Age groups. 2.Common postural Deformities. 3.women"s participation in Sports 4.Female Athelete Tried	postural deformities and their corrective measures
APRIL	23	**UNIT -III Yoga**	1.Obesity 2.Daibeties 3.Hypertension 4.Asthma (Asana to reduse the life style diseases their procedure , benefits and contridiction of the asnas.	Yogic Practices
		UNIT-IV Physical educarion and Sports For CWSN	1.Organizations promoting Disability Sports . 2.Concept of Classificationand Divisoninf in Sports . 3.Concept of Inclusion in sports , its Need and Implimentation. Advantages of Physical Activities for children with Special need	Advantages of Physical Activities for CWSN
JUNE	23	**UNIT-V Sports & Nutrition**	1. Concept of balanced diet and nutrition 2. Macro & Micro Nutrientd : Food surces and	Make a tree daigram of pre, post and during competition diet
		JUNE CT-1 (UNIT 1 & 2)		

			functions 3.Nutritive & Non Nutrituve Components for weight 4. Eationg of sports control (food myth) 5. Importances of Dirt in Sports . (Pre, Post, During Competition Requirements)	
		UNIT -VI Test & Measurement	1. Fitness Test SAI khelo india Test 2. Measurement of Cardio vascular Test -Harvard step test 3. Computing Basal Metabolic Rate 4. Rikliand jones test	Physical fitness test
		JULY UT-1 (05-07-25 to 11-07-25) (UNIT 1,2,3,4,5)		
JULY	**21**	**UNIT-VII Psyiology & injuries in sports**	1. Physiological factors determining componants of	Make chart of Injuries with daigram
			physical education	
			2.Effects of exercise on the muscular system	
			3.effects of exercise on cardio respiratory system	
			4. Physiological changes due to ageing	
			5. Sports injuries	
AUGUST	**19**	**VIII-Biomechanics and Sports**	1. Newton's law of motion& its application in sports. 2. Type of lever & its applicaton in sports. 3.Equlibrium - static, and Center of gravity and its application in sports 4.Friction & Sports 5.Projectile in sports	newtons low of motion application in different sports
		AUG-CT-2		

SEPTEMBER	16	IX-Psychology and Sports	1.Persionality : its defination & types techiques 2. motivation , Its type and techniques 3.Exercise Adherence: reasons, benefits & Strategies for Enhancing it. 4. Meaning ,Concept & type of Aggressions in Sports . 5 Psychological Attributes in Sports - self-Esteem, Mental Imagery, Self -talk , Goal setting	Prepare a caricature of a sportsperson with the aggression on the field .
		HALF YEARLY EXAM (13-09-25 to 22-09-25) (UNIT -1 TO 9)		
OCTOBER	13	X- Training in Sports	1.Concept of talent identification ans Talent developmentin sports 2.Introducation to Sports Training Cycle - (Macro, Meso,Micro Cycle) 3. Types & Methods to Develop-Strength, Endurance, Speed 4. Types & Methods to Devlop-(Flexibility and coordinative Activity) 5.Circuit Training - Introduction & its importance	Draw fartlek taining and circuit training
NOVEMBER	23	DIWALI VACATION 17/10/25 to 01/11/25		
		Revision and Sample paper Solving		
		NOV CT-3 (25/11 TO 30/11)		
DECEMBER		Preboard Exam- I (5/12/2025 to 17/12/2025) FULL PORTION		
		Revision and Sample paper Solving		
JANUARY	15	Board Practical Exam		
		Revision and Sample paper Solving		
		Preboard Exam- II (21/01 /2026 TO 31/01/2026)		
FEBRUARY		Revision and Sample paper Solving		
MARCH		BOARD EXAM		

Mahatma Gandhi Mission Primary & Seconday School

Phase – II, Sector – 8, Nerul, Navi Mumbai

YEAR PLAN 2025-2026

STD: -XII	Sub : Mathematics		Teacher : Mrs.Supriya Dunde	
MONTH	**NO. OF DAYS**	**LESSON**	**TOPIC**	**Activity**
MARCH	17	**BOARD PAPERS EVALUATION DUTY**		
		3.Matrices	Order of matrix , Types of matrices,Equality of Matrices, Operation on matrices, Properties of matrix of addition and Scalor Multiplication Miltiplication of Matrices,Transpose of matrix,Symmetric and skew symmetric matrices	Matrix Operations Cube activity
APRIL	23	4.Determinants	Determinant of matrix of order 2,Determinant of matrix of order 3×3 , Area of a triangle, Minors and cofactors,adjoint and inverse of a matrix	Study of Dominant Determinant
		12.Linear Programming	Mathematical formulation of the problem , Graphical method od solving linear programing problems	Formulating Problems and graphing feasible region
		1.Relation and Functions	Types of relations, Types of functions,Binary operations	1.To verify equivalence relation. 2.To Demonstrate a function which is not one one but onto
JUNE	23	2.Inverse Trignometric Functions	Basic concepts, properties of inverse trigonometric functions	Graph of an Inverse trigonometric function
		5.Continuity & Differentiability	Continuity,Algebra of continuous function	To find continuity and discontinuity of a function at a point
		JUNE CT-1		
		5. Continuity & Differentiability	Differentiability , Derivatives of composite functions, Chain rule, Derivtives of implicit functions, Derivatives of inverse trignometry functions, Exponential and Logarithmic functions, Logarithmic Differentiation, Derivatives of functions in parametric forms, Second order derivative	To Verify diffrentiability of a function at a point.
JULY	21	**JULY UT-1 (5/07/25 to 11/07/25) Exam portion-chapters 1,2,3,4,5**		
		6.Application of derivative	Rate of change of Quantities, Increasing and Decreasing Functions, Maxima and Minima	To find maxima and minima by using piece of chart paper.

AUGUST	19	7.Integrals	Methods of integration, integrals of some Particular functions, integration by partial fractions,	To evaluate the definite integral as the limit of a sum and verify it by actual integration
		8.Application of Integrals	Area under simple curves, area between two curves	Math lab activity : area bounded by x axis
		<td colspan="3" style="background:yellow">AUGUST CT-2</td>		
SEPTEMBER	16	9.Differential Equation	Basic concepts, General and Particular Solutions of a Differential Equations, Methods of Solving First Order,First Degree Differential Equations.	Formulation of linear differential equation
		10.Vector Algebra	Types of Vectors,Addition of Vectors, Multipliaction of Vector by Scalor, Vector joining two point, Section formula, Product of two vectors,Vector product of two vectors	To verify geometrically that c x (a + b)= c x a + c x b
		<td colspan="3" style="background:yellow">Half yearly exam (13/9/25 to 22/9/25) Exam portion-1,2,3,4,5,6,7,8,12</td>		
OCTOBER	13	11.Three Dimensional Geometry	Direction cosines and Direction ratios of a line, Equation of a line in space,Shortest distance between two line, Distance between parallel line	To measure the shortest distance between two skew lines and verify it analytically
		13.Probablity	Conditional probability, Multiplication theorem on probability, Independent events, Bayes theorem	To explain the computation of conditional probablity by using throwing a pair of dice
NOVEMBER	23	<td colspan="3" style="background:yellow">**DIWALI VACATION 17/10/25 to 01/11/25**</td>		
		<td colspan="3">Revision and Sample paper Solving</td>		
		<td colspan="3" style="background:yellow">NOV CT-3 (25/11 TO 30/11)</td>		
DECEMBER		<td colspan="3" style="background:yellow">Preboard Exam- I (5/12/2025 to 17/12/2025) FULL PORTION</td>		
		<td colspan="3">Revision and Sample paper Solving</td>		
JANUARY	15	<td colspan="3">Board Practical Exam</td>		
		<td colspan="3">Revision and Sample paper Solving</td>		
		<td colspan="3" style="background:yellow">Preboard Exam- II (21/01 /2026 TO 31/01/2026)</td>		
FEBRUARY		<td colspan="3">Revision and Sample paper Solving</td>		
MARCH		<td colspan="3" style="background:yellow">**BOARD EXAM**</td>		

Mahatma Gandhi Mission Primary & Seconday School

Phase – II, Sector – 8, Nerul, Navi Mumbai

YEAR PLAN 2025-2026

STD : XII		SUB : ENGLISH		MS. VANITA DANDONA
MONTH	NO. OF DAYS	LESSON	TOPIC	Activity
MARCH	17	CREATIVE WRITING	NOTICE WRITING, ADVERTISEMENT WRITING, LETTER WRITING, REPORT WRITING, ARTICLE WRITING	LAST YEAR SAMPLE PAPERS PRACTICE
APRIL	23	PROSE & POEM	1. THE LAST LESSON(prose)	BASIC 10 SENTENCES IN 5 DIFFERENT FOREIGN LANGUAGE
			1. MOTHER AT 66 (poem)	VISIT AN OLD AGE HOME OR ARTICLE ON ADOPTION OF OLD PEOPLE FROM OLD AGE HOME
JUNE	23	PROSE & Supplemenary	2. LOST SPRING (prose)	EXPERIENCE WORKING WITH AN NGO
			1. THE THIRD LEVEL (supp)	PPT ACTIVITY FOR INTERNALS
		JUNE CT-1 (10th TO 16 june)		
		PERIODIC TEST-1 (6th TO 12th JULY) CREATIVE WRITINGS, THE LAST LESSON, MOTHER AT 66, LOST SPRING, THE THIRD LEVEL		
JULY	21	PROSE & Supplemenary	3. DEEP WATER (PROSE) 2. THE TIGER KING (SUPP)	PEN DOWN FIVE SELF FEARS U POSSES AND TRY FIND A SOLUTION OF ATLEAST 1
AUGUST	19	POEM & PROSE	3. KEEPING QUIET(POEM), 3. JOURNEY.. (SUPP)	A 10 MINUTE MINDFUL SILENCE ZONE CREATED AND NOTE DOWN ITS REFLECTIONS// DEBATE Dr SADAO ACTED RIGHT OR WRONG
			4. THE RATTRAP (PROSE), 4. THE ENEMY (SUPP)	

		AUGUST CT-2 (17th TO 24TH AUG)		
SEPTEMBER	16	POEM & PROSE	4.A THING OF BEAUTY (POEM),5. INDIGO(PROSE), 5. A ROADSIDE STAND (POEM)	ROLE PLAY ON CHAREACTERS OF INDIGO
		SEPTEMBER PERIODIC TEST-2/HALF YEARLY EXAM (23/9 TO 28/9)		
OCTOBER	13	POEM & PROSE	6.AUNT JENNIFERS TIGERS(POEM),6. ON THE FACE OF IT (SUPP), 8. MEMORIES (SUPP)	STUDENTS SPEAK ON THEMES OF FREEDOM, OPPRESSION , SELF EXPRESSION
				IMAGINE YOU ARE MR LAMB , WRITE A LETTER TO DERRY , PIECE OF ADVICE
NOVEMBER	23	DIWALI VACATION (29 OCT-13 OCT)		
		NOVEMBER CT-3 (25/11 T0 30/11)		
DECEMBER	12		REVISION	
		Preboard Exam_I (7 DEC-13 DEC)		
		Revesion and Sample paper Solving		
JANUARY	15	Preboard Exam_II 3/01 TO 9/01		
		Board Practical Exam		
FEBRUARY		Preboard Exam III(17 JAN-23 JAN)		
		Revision and Sample paper Solving		
MARCH		Annual Exam		

Mahatma Gandhi Mission Primary & Seconday School

Phase – II, Sector – 8, Nerul, Navi Mumbai

YEAR PLAN 2025-2026

STD: -XII | **COMPUTER SCIENCE** | **Mrs Sangeeta Gunjal**

MONTH	NO. OF DAYS	LESSON	TOPIC	Activity
MARCH	17	12.Relational database	Purpose of DBMS, Relational Database Model, Aceesing Database in MySQL.	Lab Work:CREATE TABLE EMP, INSERT INTO 10 RECORD AND DSPLAY RECORD AS PER QUERY
		13.Simple SQL Queries	1. Creating Tables 2. Inserting data into Table	Lab Work: Sort By clause and Group By Clause
		14.Table Creation and Data Manupulation	1. Ordering records in result 2. Groupig Records	
APRIL	23	BOARD PAPERS EVALUATION DUTY	1.Keywords & identifiers 2.Looping statements 3.String in Python	Lab Work. Write a program to reverse the string
		15. Grouping Records,Joins in SQL		
JUNE	23	1.Python Revision Tour_1 2.Python Revision Tour_2	1.Keywords & identifiers 2.Looping statements 3.String in Python . Lists,Tuples, Dictionaries in python	Lab Work.Recursievely find the Factorial of a Natural number
		3. Working with Functions	Understanding of Function	Lab Work 1. Write a python function sin(x,n) to calculate the value of sin(x) using its Taylor series expansion up to n terms.
		JUNE CT-1		
		4. Using Python Libraries	What is Library Importing Modules in a python Creating a python Library	Lab Work. 1. Write a program to get http request information from www.ted.com and open it from within your program
JULY	21	JULY UT-1 (5/07/25 to 11/07/25)		
		5. File Handling	Data Files	Lab WorK: 1.Read a file line and print it 2.Remove all the lines that contain the character 'a' in a file and write it to another file.
			Opening and closing Files	

AUGUST	19	6. Recursion	Recursive Function	Lab Work 1.Write a recursive function to print a string backwards
		7. Idea of Algorithmic Efficiency	Idea of Algorithmic Efficiency	Calculate the run-time efficiency of the following program segment
		8. Data Structures-I: Linear Lists	Elementary Data Representation	Lab work. Linear searching in an array(Linear list)
		AUGUST CT-2		
SEPTEMBER	16	9. Data Structures-II : Stacks and Queues	1. Introduction 2.Stacks and Queues	1.Write a python program to implement a stack
		10. Computer Network-1	Types of Network Network Devices	What is a Network?What are its goals and Application?
		11.Computer Network-II	Modulation Techniques,Main Idea of Routing	What is Modulation? What is the need of Modulation?
		Half yearly exam (13/9/25 to 22/9/25)		
OCTOBER	13	16.Interface Python with MySQL	Connecting to MySQL from Python	Design a Python applicatin that faches all the record from pet tables of Menagere Database
NOVEMBER	23	DIWALI VACATION 17/10/25 to 01/11/25		
		Revision and Sample paper Solving		
DECEMBER	12	NOV CT-3 (25/11 TO 30/11)		
		Preboard Exam- I (5/12/25 to 17/12/25) FULL PORTION		
		Revision and Sample paper Solving		
JANUARY	15	Board Practical Exam		
		Revision and Sample paper Solving		
		Preboard Exam_II (3/01/26 TO 9/01/26)		
FEBRUARY		Revision and Sample paper Solving		
MARCH		Annual Exam		

Mahatma Gandhi Mission Primary & Seconday School

Phase – II, Sector – 8, Nerul, Navi Mumbai

YEAR PLAN 2025-2026

STD: -XII | **CHEMISTRY** | **Mrs.Manasvi Shigwan**

MONTH	NO. OF DAYS	LESSON	TOPIC	Activity
MARCH	17	**BOARD PAPERS EVALUATION DUTY**		
		6.Haloalkanes and Haloarenes	Introduction, Classification , Nomenclature, Basics discussion from organic Chemistry	Practicals on Salt analysis
				Students Presentation on SN1 and SN2 mechanism
APRIL	23	6.Haloalkanes and Haloarenes	Electrochemical cell, cell representation, Nernst equation, Gibbs equation, Farady's law	Students Presentation on Primary and secondary cells.
		Electrochemistry		
JUNE	23	4.d and f Block Elements	physical and Chemical properties.Reactions of Potassium dichromate and permagnate,	Chart making on d and f block elements
		JUNE CT-1		
		7.Alcohols, Phenols,ethers	Classification, Nomenclature, Preparation, physical properties, chemical reactions	Practicals volumetric Analysis of oxalic acid
JULY UT-1 (5/07/25 to 11/07/25) Exam portion-chapters 2,4,6,7				
JULY	21	1.Solutions	Concentration of solutions, solubility , Colligative properties,Vanthoff factor	Practicals volumetric Analysis of Mohr's Salt
AUGUST	19	5.Coordination Compounds	Important terms, Werner's Theory, Types of ligands, Homoleptic, Heteroleptic Complexes, VBT,CFT	Practicals on analysis of Food sample (Carbohydrate,Protein, Fats)

AUGUST CT-2
SEPTEMBER	**16**	8.Aldehydes ,Ketones and Carboxylic acids	Structure, Nomenclature, Chemical reactions of Aldehydes	salt analysis
			Half yearly exam (13/9/25 to 22/9/25) Exam portion-1,2,4,5,6,8
OCTOBER	**13**	10.Biomolecules	Carbohydrates: MonoSaccharides: Glucose, Fructose	salt analysis
		9.Amines	Classification, Nomenclature, Preparation, physical properties, chemical reactions	student's presentation on Biomolecules
		3.Chemical kinetics		
NOVEMBER	**23**		**DIWALI VACATION 17/10/25 to 01/11/25**
			Revision and Sample paper Solving
DECEMBER	**12**		NOV CT-3 (25/11 TO 30/11)
			Preboard Exam- I (5/12/25 to 17/12/25) FULL PORTION
			Revision and Sample paper Solving
JANUARY	**15**		Board Practical Exam
			Revision and Sample paper Solving
			Preboard Exam_II (3/01 TO 9/01)
FEBRUARY			Revision and Sample paper Solving
MARCH			**Annual Exam**

			Mahatma Gandhi Mission Primary & Seconday School	
			Phase – II, Sector – 8, Nerul, Navi Mumbai	
			YEAR PLAN 2025-2026	
XII		**Biology**	**Mrs.Shalini Tiwari**	
MONTH	**NO. OF DAYS**	**LESSON**	**TOPIC**	**Activity**
MARCH	17	1.Sexual Reproduction in flowering plant	* Explain the Structure of flower, development of male and female gametophyte. * Know the different adaptation in flower depending upon the pollination process. * Describe the mechanism of pollen- pistil interaction, double fertilisation, post fertilisation events, development of seed, fruit formation, parthenocarpy, polyembryoand apomixis	1.To study the pollen germination on slide. (practical) 2. To study the adaptation of flowers for pollination. (spotting by the help of virtual image) 3. contolled pollination emasculation tagging and bagging
APRIL	23	2Human Reproduction	* Understand and compare the Structure of male and female reproductive system * Understand and compare the microscopic anatomy of testes and ovaries. * Explain the mechanism of Gametogenesis - oogenesis and spermatogenesis. * Explain the mechanism of menstrual cycle * Understand and explain the fertilization, embryo development, implantation,embryo dev placenta formation, parturation and	1.To study the TS of testis and LS of ovary(Spotting by the help of virtual image) 2. TS of blastula through permanent slide
		3.Reproductive health	Understand and explain the STDs, Birth control methods, MTP, amniocentesis, infertility and assisted reproductive technologies-- IVF,ZIFT,GIFT	Students will prpresentation by showing their creativity on any one of the following topic 1. Infertility. 2. Contraceptive method

JUNE	23	4. Principles of Inheritance and variation	Understand the Mendelian inheritance and laws of inhritance *Compare the Deveation from Mendelism---incomplete and co dominance, multiple allele * Understandthe mechanism of pleiotrophy, polygenic Inheritance, chromosomal theory of inheritance, *Describe the sex determination in---human, birds,honeybee, linkage and crossing over *Identify and compare sex linked inheritance---haemophilia, colourblindness, Mendelian disorder----thalassemia, Chromosomal disorder---Down, Turner and klinefelter syndrome	1.To study of prepared pedigree charts of Genetic traits such as rolling of tongue, blood groups, widow peak, colour blindness (spotting by the help of prepared pedigree chart) 2.mendelian inheritance using seeds of different colour
		JUNE CT-1		
		5.Molecular basis of inheritance	*structure of DNA and RNA , semiconserative method of DNA, transcription, translation, lac operon, human and rice genome project	Collect information about the human genome project and rice genome
		JULY UT-1 (5/07/25 to 11/07/25) Exam portion-chapters 1,2,3		
		6.Evolution	1. Origin of life 2.Evolution and evidences 4. Adaptive radiation 5.biological evolution mechanism of evolution 6. Hardy weinsberg principle. 7.human evolution	Flash cards models showing examples of homologous and analogous organs
		9.Biotechnology--principles and	Understand and Describe the steps of Recombinant DNA	To isolate the DNA from available plant material

JULY	21	10.. Biotechnology and its application	Understanding the mechanism of Formation of human insulin , vaccine production *Understanding the importanceof application of biotechnology in health and agriculture *Understanding the concept of stem cell technology, gene therapy * Understand the Importance GMO--- Bt cotton,biosafety, patent	
AUGUST	19	7 Human Health and Diseases	* understanding the corelation between diseases and health * Understanding the Human diseases its causing agents, symptoms and its control * Understanding the basic concept of immunology, HIV and AIDS, cancer *Identify and understand the various types and effects of addiction	To study the common disease causing organism (spotting by the help of permanent slide and specimen)
		8. Microbes in Human Welfare	Microbes used in food processing, industrial production,sewage treatment biogas production. Microbes as a biocontrol and biofertilizer, production of antibiotics	Prepare chart showing list of microbes mentioning in a chapter and its uses.
		<td colspan="3" style="background-color:yellow">AUGUST CT-2</td>		
SEPTEMBER	16	11. Organism and population	*Define Habitat and niche,Population & ecological adaptation *Describe population Interaction-mutulism, competition, predation, parasitism *Understand the population attributes,- growth, birth& death rate, Age distribution	1.To Study plant population density and frequency by the help of quadrant chart (Integration with Mathmatics) 2. model specimen showingsymbiotic association in root nodules of leguminious plant, cuscuta with host and lichen
		<td colspan="3" style="background-color:yellow">Half yearly exam (13/9/25 to 22/9/25) Exam portion-1,2,3,4,5,6</td>		

OCTOBER	13	12.Ecosystem	*Understand and explain the relationship in Ecosystem pattern, component, productivity and decomposition. *Understand the role of energy flow in diffrent trophic level. *Understand the mechanism of ecological pyramid of number biomass & energy.	Assesment worksheet
		13.Biodiversity and its conservation	* Understand the Concept of pattern, loss and conservation of biodiversity. * Know the importance of hotspot. * Define the endangered and extinct species, Red data book, Biosphere reserve, national park, santuries and Ramsar sites.	collect informaion about ramsar sites and discuss in the classroom
NOVEMBER	23	DIWALI VACATION 17/10/25 to 01/11/25		
		Revision and Sample paper Solving		
DECEMBER	12	NOV CT-3 (25/11 TO 30/11)		
		Preboard Exam- I (5/12/25 to 17/12/25) FULL PORTION		
		Revision and Sample paper Solving		
JANUARY	15	Board Practical Exam		
		Revision and Sample paper Solving		
		Preboard Exam_II (3/01 TO 9/01)		
FEBRUARY		**Annual Exam**		