

DELHI PUBLIC SCHOOL, GANDHINAGAR**SYLLABUS – 2023-24****CLASS – XII SCIENCE****SUBJECT: ENGLISH**

MONTH	LITERATURE READER (FLAMINGO)	SUPPLEMENTARY READER (VISTAS)	WRITING
March	1. The Last Lesson (Prose)		1. Notice Writing
April	2. My Mother at Sixty Six (Poem)	1.The Third Level 2.The Tiger King	2.Letter to Editor
May	3. Keeping Quiet (Poem)	3.The Enemy	
June	4. Lost Spring (Prose).		3.Article Writing
July	5. Deep Water(Prose) 6. The Rattrap (Introduction)	4. Journey to the End of the Earth	4.Job Application

Syllabus for Periodic Test-1:**Flamingo :**The Last Lesson, Lost Spring, Deep Water, Keeping Quiet(P), My Mother at Sixty- Six(P)**Vistas:** The Third Level, The Tiger King**Writing Skills:** Notice Writing, Letter to Editor, Article Writing

August	6. Rattrap 7. A Thing of Beauty (Poem).	5. On the Face of it	5. Invitations ASL
September	8. Indigo		ASL Project Discussion

Syllabus for HYE :**Flamingo:** The Last Lesson, Lost Spring, Deep Water, Rattrap, Keeping Quiet(P), My Mother at 66 (P), A Thing of Beauty (P)**Vistas:** The Third Level, The Tiger King , The Enemy, Journey to the End of the Earth**WRITING SKILLS:** Notice Writing, Letter to Editor, Article Writing, Invitation, Job Application

PRACTICAL- ASL

October	9.Poets and Pancakes 10. The Interview	6.Memories of Childhood	6.Replies to Invitation 7.Report Writing Project Discussion
November	11. Aunt Jennifer's Tigers (Poem) 12.A Roadside Stand 13.Going Places	6.Memories of Childhood(Contd)	

Syllabus for Pre-Board 1 : Full Syllabus**SUBJECT: PHYSICS**

Month	Lessons/ Chapters	Activities/ Practical
March	L1: Electric charges and fields.	-
April	L1: Electric charges and field (continue...) L2: Electrostatic potential and capacitance L3: Current Electricity	A-1: To determine resistivity of two / three wires by plotting a graph for potential difference versus current. A-2: To find resistance of a given wire / standard resistor using meter bridge. Project Allotment

May	L4: Moving charges and magnetism	Act-1: To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source. A-3: To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
June	L5: Magnetism and matter L6: Electromagnetic Induction	A-4: To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same.
July	L6: Electromagnetic Induction (continue...) L7: Alternating current	Act-2: To assemble the components of a given electrical circuit. Act-3: To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and the circuit diagram.
Syllabus for Periodic Test-1: L1, L2, L3, L4, L5		
August	L7: Alternating current (continue...) L8: Electromagnetic waves L9: Ray optics and optical Instruments	B-1: To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v. B-2: To determine refractive index of a glass slab using a travelling microscope. Act-4: To identify a diode, an LED, a resistor and a capacitor from a mixed collection of items.
September	L10: Wave optics	B-3: To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation. Project Submission
Syllabus for HYE : L1, L2, L3, L4, L5, L6, L7, L8		
October	L11: Dual nature of radiation and matter L12: Atoms L13: Nuclei	B-4: To draw the I-V characteristic curve for a p-n junction diode in forward bias and reverse bias. Act-5: To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab. Act-6: To observe diffraction of light due to a thin slit.
November	L13: Nuclei (continue...) L14: Semiconductor Electronics REVISION	Completion of Journal and Projects
Syllabus for Pre-Board 1 : Full syllabus (L1 TO L14)		

SUBJECT: CHEMISTRY

Month	Lessons/ Chapters	Activities/ Practical
March	L:01 Solutions	-
April	L:02 Electrochemistry L:03 Chemical Kinetics L:04 d & f- block elements	01. Preparation of 250 ml M/20 solution of Mohr's solution. Determination of molarity and strength of KMnO ₄ solution using Mohr's salt. Investigatory Project Allotment
May	L:04 d & f- block elements	02. Preparation of 250 ml M/20 solution of Mohr's solution. Determine the percentage purity of KMnO ₄ solution using Mohr's salt.

June	L:05 Coordination Compounds	03. Determination of water of crystallization in Mohr's salt by using 0.011M KMnO ₄ solution. 04. Preparation of 250 ml M/50 solution of Oxalic acid solution. Determination of molarity and strength of KMnO ₄ solution using Oxalic acid solution.
July	L:06 Haloalkanes and Haloarenes	05. Find out the percentage purity of impure sample of oxalic acid. You are provided M/100 KMnO ₄ solution. 06. Inorganic salt analysis: [Ammonium bromide, Lead nitrate] 07. Inorganic salt analysis: [Aluminium nitrate, Zinc acetate]
Syllabus for Periodic Test-1: L:01 Solutions, L:02 Electrochemistry, L:03 Chemical Kinetics & L:04 d & f-block elements		
August	L:07 Alcohols, Phenols & Ethers L:08 Aldehydes, Ketones & Carboxylic acids	08. Inorganic salt analysis: [Calcium chloride, Strontium nitrate, Barium bromide] 09. Inorganic salt analysis: [Magnesium sulphate, Ammonium phosphate, Calcium nitrate] 10. Inorganic salt analysis: [Strontium bromide, Nickel nitrate, Cobalt chloride, Ammonium sulphate] 11. Organic functional group analysis: [Aldehyde, Ketone] 12. Organic functional group analysis: [Alcohol, Phenol] Project Submission
September	L:09 Organic Compounds containing Nitrogen	13. Organic functional group analysis: [Carboxylic acid, Aromatic amine]
Syllabus for HYE: L:01 Solutions, L:02 Electrochemistry, L:03 Chemical Kinetics & L:04 d & f- block elements, L:05 Coordination Compounds, L:06 Haloalkanes and Haloarenes, L:07 Alcohols, Phenols & Ethers		
October	L:09 Organic Compounds containing Nitrogen L:10 Biomolecules	14. Effect of concentration on rate of reaction. 15. Effect of temperature on rate of reaction.
November	Revision	Revision and Completion of Journal
Syllabus for Pre-Board 1 : L 1 to 10 (Full syllabus)		

SUBJECT: MATHS

Month	Lessons/ Chapters	Activities/ Practical
March	Ch3. Matrices Ch4. Determinants (Contd)	
April	Ch4. Determinants Ch1. Relations and Functions Ch2. Inverse Trigonometric Functions	(1) To verify that the relation in the set of all lines in a plane, defined by 'aRb iff a is perpendicular to b' is symmetric but neither reflexive nor transitive. (2) To verify that the relation in the set of all lines in a plane, defined by 'aRb if a is parallel to b' is an equivalence relation.
May	Ch5. Continuity and Differentiability	(3) To demonstrate a function which is not one-one but is onto. (4) To demonstrate a function which is one-one but not onto.

June	Ch5. Continuity and Differentiability(contd)	
July	Ch5. Continuity and Differentiability (Contd) Ch6. Application of Derivatives	(5) To find analytically the limit of a function at a point and also to check the continuity of the function at that point.
Syllabus for Periodic Test-1: Chapters: 1, 2, 3, 4 and 5		
August	Ch6. Application of Derivatives (Contd) Ch7. Integrals	(6) To understand the concepts of absolute maximum and absolute minimum of a function in a given closed interval through its graph.
September	Ch7. Integrals (Contd)	
Syllabus for HYE : Chapters: 1, 2, 3, 4, 5 and 6		
October	Ch8. Application of Integrals Ch9. Differential Equations Ch10. Vector Algebra	(7) To verify that angle in a semi-circle is a right angle, using vector method. (8) To verify the distributive property for vectors geometrically.
November	Ch11. Three-dimensional geometry Ch13. Probability Ch12. Linear Programming	(9) To locate the points to given co-ordinates in space, measure the distance between two points in space and then to verify the distance using distance formula. (10) To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of a dice.
Syllabus for Pre-Board 1 : All chapters		

SUBJECT: BIOLOGY

Month	Lessons/ Chapters	Activities/ Practical
March	Ch 2: Sexual Reproduction in Flowering Plants	-
April	Ch 2: Sexual Reproduction in Flowering Plants Ch 3: Human Reproduction	1. Prepare a temporary mount to observe pollen germination. 2. Study the plant population density by quadrat method. 3. Study the plant population frequency by quadrat method. 4. Controlled pollination - emasculation, tagging and bagging Project Allotment
May	Ch 4: Reproductive health Ch 5: Principles of inheritance and variation	5. Flowers adapted to pollination by different agencies (wind, insects, and birds).
June	Ch 5: Principles of inheritance and variation Ch 6: Molecular basis of inheritance	6. Prepare a temporary mount of onion root tip to study mitosis.

July	Ch 6: Molecular basis of inheritance Ch 7: Evolution	7. Pollen germination on stigma through a permanent slide or scanning electron micrograph 8. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice). 9. T.S. of blastula through permanent slides (Mammalian). 10. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.
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Syllabus for Periodic Test-1: Ch 2, 3, 4, 5, 6

August	Ch 8: Human health and disease Ch 10: Microbes in human welfare	11. Meiosis in onion bud cell or grasshopper testis through permanent slides. 12. Mendelian inheritance using seeds of different colour/sizes of any plant. 13. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness. 14. Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause. Project Submission
September	Ch 11: Biotechnology: Principles and processes	15. Models specimen showing symbolic association in root modules of leguminous plants, Cuscuta on host, lichens. 16. Flash cards models showing examples of homologous and analogous organs.

Syllabus for HYE : Ch 2, 3, 4, 5, 6, 7, 8, 10

October	Ch 11: Biotechnology: Principles and processes Ch 12: Biotechnology and its applications Ch 13: Organisms and Populations	Revision and Journal Completion
November	Ch 14: Ecosystem Ch 15: Biodiversity and conservation	Revision

Syllabus for Pre-Board 1 : Ch 2, 3, 4, 5, 6, 7, 8, 10,11,12,13,14,15 (All chapters)

SUBJECT: COMPUTER SCIENCE

Month	Lessons/ Chapters	Activities/ Practical
March	Ch 1. Python Revision Tour	Programs based on conditional and looping statements
April	Ch 2. Python Revision Tour-II (Extra Topic: Basics of Exception Handling) Ch 3. Working With Functions	Programs based on String, Lists & Dictionaries Programs based on Functions
May	Ch 3. Working With Functions. (Cont.) Ch 4. Using Python Libraries	Programs based on Functions and Libraries Introduction to Project
June	Ch 5. File Handling	Programs Based on File Handling

July	Ch 5. File Handling (Contd..) Ch 12. Relational Databases	Programs Based on File Handling
Syllabus for Periodic Test-1: Chapters : 1, 2, 3 and 4		
August	Ch 14. Table Creation and Data Manipulation Command (14.1 – 14.4) Ch 13. Simple Queries in SQL	SQL Table creations, Data insertion, Queries
September	Revision	
Syllabus for HYE : Chapters : 1, 2, 3, 4, 5, 12, 13, 14.1-14.4		
October	Ch 16. Interface Python with MySQL Ch 15. Grouping Records, Joins in SQL Ch 14. Table Creation and Data Manipulation Command (14.5)	Programs based on Python MySQL connectivity Queries based on Grouping and SQL Joins Project Work
November	Ch 9. Data Structures: Stacks using Lists Ch 10. Computer Networks-I Ch 11. Computer Networks-II	Programs based on Stacks Project Work Final Journal and Project Work Submission
Syllabus for Pre-Board 1 : All Chapters		

SUBJECT: PHYSICAL EDUCATION

Month	Lessons/ Chapters	Activities/ Practical
March	Unit I: Management of Sporting Events	** Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)* Practice
April	Unit II: Children & Women in Sports	** Yoga Practice
	Unit III: Yoga as Preventive measure for Lifestyle Disease.	**Skill Practice
May	Unit IV: Physical Education & Sports for CWSN.	** Record File – Ch.1 and Ch.2
June	Unit IV: Physical Education & Sports for CWSN	Record File – Ch.3
July	Unit V: Sports & Nutrition	
Syllabus for Periodic Test-1: Unit I, II, III, IV & V		
August	Unit VI: Test & Measurement in Sports	** Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)* Practice
	Unit VII: Physiology & Injuries in Sports(CONTINUE)	
September	Unit VII : Physiology & Injuries in Sports	Skill Practice
Syllabus for HYE: Unit I, II, III, IV, V & VI		
October	Unit VIII: Biomechanics & Sports	**Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)* Practice
	Unit IX: Psychology & Sports. (CONTINUE)	
November	Unit IX: Psychology & Sports.	Skill Practice
	Unit X: Training in Sports.	
Syllabus for Pre-Board 1: Unit I, II, III, IV, V, VI, VII, VIII, IX & X		

SUBJECT: PSYCHOLOGY

Month	Lessons/ Chapters	Activities/ Practical
March	Ch-1 Variations in Psychological Attributes	Method of Psychological Enquiry- Case Study
April	Ch-1 Variations in Psychological Attributes Ch-2 Self and Personality	Psychological Test-1 RSPM Administration and report writing
May	Ch-2 Self and Personality	Psychological Test-2 MPI Administration and report writing
June	Ch-3 Meeting Life Challenges	
July	Ch-3 Meeting Life Challenges Ch-4 Psychological Disorders	Psychological Test-3 SCQ Administration and report writing
Syllabus for Periodic Test-1: Ch 1 & 2		
August	Ch-4 Psychological Disorders Ch-5 Therapeutic Approaches	Psychological Test 4- CAT Administration and report writing
September	Ch-5 Therapeutic Approaches	
Syllabus for HYE : Ch 1, 2, 3 & 4		
October	Ch-6 Attitude and Social Cognition	Psychological Test-5 AISS Administration and report writing
November	Ch-7 Social Influence and Group Processes	
Syllabus for Pre-Board 1 : Ch 1 to 7 (complete syllabus)		

Note: Syllabus for PT/HYE/AE mentioned here is tentative. Final Syllabus will be provided three weeks prior to the test/exam.