

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

Month	Literature Reader (Hornbill)	Supplementary Reader (Snapshot)	Writing
April	1.The Portrait of a Lady (Prose) 2. A Photograph (Poem)	1.The Summer of the Beautiful White Horse (Prose)	1. Tenses
May	3. We are not Afraid to Die.... (Prose)		2. Poster Making
June	4. The Laburnum Top (Poem)	2.The Address (Prose)	
July	5. Discovering Tut: The Saga Continues (Prose)		3.Note Making & Summarising 4.Reordering of sentences

Syllabus for Periodic Test-1:**Reading:** Unseen Passage**Advanced Writing Skills & Grammar:** Poster Making, Integrated Grammar**Literature:** The Portrait of a Lady, We are not Afraid to Die..., A Photograph, The Laburnum Top (Poem), The Summer of the Beautiful White Horse, The Address

August	6. The Voice of the Rain (Poem) 7.The Adventure		5. Speech Writing 6. Advertisement
September			7. ASL Project Discussion

Syllabus for HYE:**Reading:** Unseen Passage, Note Making & Summarising**Advanced Writing Skills & Grammar:** Poster Making, Advertisement, Speech Writing, Integrated Grammar, Reordering of sentences**Literature :**The Portrait of a Lady, We are not Afraid to Die..., Discovering Tut: the Saga Continues, The Adventure, A Photograph, The Laburnum Top, The Voice of the Rain, The Summer of the Beautiful White Horse, The Address

October	8. Childhood (Poem)	3. Mother's Day (Prose)	Project Review
November	9. Silk Road (Prose)		8. Debate Writing
December		4. Birth (Prose)	9. Clauses

Syllabus for Periodic Test-2:**Reading:** Unseen Passage, Note Making & Summarising**Advanced Writing Skills & Grammar:** Advertisement, Debate Writing, Integrated Grammar, Reordering of sentences**Literature:** Silk Road (Prose), Childhood, Mother's Day, Birth

January	10. Father to Son (Poem)	5. The Tale of Melon City	10. Reordering and Transformation of sentences
February	Revision		

Syllabus for AE: Complete Syllabus

SUBJECT: PHYSICS

Month	Lessons/ Chapters	Activities/ Practical
April	L2: Units Measurement and Dimension L3: Motion in One Dimension L4: Motion in Two Dimension	A-1: To measure diameter of a small spherical/cylindrical body using Vernier Calipers. A-2: To measure diameter of a given wire and thickness of a given sheet using screw gauge.
May	L4: Motion in Two Dimension (Continue...) L5: Laws of Motion	Act-1: To make a paper scale of given least count, e.g., 0.2 cm, 0.5 cm.
June	L6: Work Energy and Power	A-3: To determine radius of curvature of a given spherical surface by spherometer. Project Allotment
July	L7: System of Particles and Rotational Motion	Act-2: To determine mass of a given body using a meter scale by principle of moments. A-4: To find the weight of a given body using parallelogram law of vectors.
Syllabus for Periodic Test-1: L2, L3, L4, L5		
August	L8: Gravitation L9: Mechanical Properties of Solids L10: Fluid Mechanics	Act-3: To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time. B-1: To find the force constant of a helical spring by plotting a graph between load and extensions.
September	L10: Fluid Mechanics (Continue...)	B-2: To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.
Syllabus for HYE: L2, L3, L4, L5, L6, L7, L8		
October	L11: Thermal Properties of Gases L12: Thermodynamics	Act-4: To study the effect of detergent on surface tension of water by observing capillary rise. B-3: To study the relationship between the temperature of a hot body and time by plotting a cooling curve.
November	L13: Kinetic Theory Gases	Act-5: To observe and explain the effect of heating on a bi-metallic strip.
December	L14: Oscillation L15: Wave Motion	Act-6: To observe change of state and plot a cooling curve for molten wax. B-4: To study the relation between frequency and length of a given wire under constant tension using sonometer. Journal and Project Submission
Syllabus for Periodic Test-2: L9, L10, L11		
January	L15: Wave Motion (Continue...)	Revision
February	Revision	Revision
Syllabus for AE: Complete Syllabus		

SUBJECT: CHEMISTRY

Month	Lessons/ Chapters	Activities/ Practical
April	1. Some basic concepts of Chemistry 2. Structure of Atom	-
May	2. Structure of Atom	-
June	3. Classification of elements and periodicity in properties	1. Introduction to Laboratory and basic techniques. 2. Determination of molarity and strength of HCl solution using M/10 NaOH solution.
July	3. Classification of elements and periodicity in properties 4. Chemical Bonding and molecular structure	3. Determination of molarity and strength of NaOH solution using M/20 Oxalic acid solution. 4. Determination of molarity and strength of HCl solution using M/20 Na ₂ CO ₃ solution. 5. Inorganic salt analysis [Pb (NO ₃) ₂] Investigatory Project Allotment
Syllabus for Periodic Test-1: L:01 Some basic concepts of Chemistry, L:02 Structure of Atom & L:03 Classification of elements and periodicity in properties		
August	5. Chemical Thermodynamics 6. Equilibrium	6. Inorganic salt analysis [NH ₄ Br, BaCl ₂] 7. Inorganic salt analysis [Al (NO ₃) ₃ , Pb(CH ₃ COO) ₂] 8. Inorganic salt analysis [MgSO ₄ , Sr (NO ₃) ₂] 9. Inorganic salt analysis [CaCl ₂ , MgSO ₄ , (NH ₄) ₂ SO ₄]
September	6. Equilibrium	Half Yearly Practical Revision
Syllabus for HYE : CHAPTERS: 01 Some basic concepts of Chemistry, 02 Structure of Atom, 03 Classification of elements and periodicity in properties, 04 Chemical Bonding and molecular structure, 05 Chemical Thermodynamics & 06 Equilibrium		
October	7. Redox Reactions	10. Preparation of pure crystals of Benzoic acid from impure sample. 11. Preparation of pure crystals of alum from impure sample.
November	08. Organic Chemistry: Some basic Principles and Techniques	Completion of Journal
December	08. Organic Chemistry: Some basic Principles and Techniques 09. Hydrocarbon	Journal and Project Submission
Syllabus for Periodic Test-2: CHAPTER: 07 Redox Reactions & 08 Organic Chemistry		
January	09. Hydrocarbon	Revision
February	Revision	Annual Practical Exam
Syllabus for AE: Full syllabus (Chapters: 01 to 09)		

SUBJECT: MATHS

Month	Lessons/ Chapters	Activities/ Practical
April	Ch1. Sets Ch2. Relations and Functions	1. To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is 2^n . 2. To represent set theoretic operations using Venn diagrams.
May	Ch2. Relations and Functions (contd)	
June	Ch3. Trigonometric Functions	
July	Ch3. Trigonometric Functions (contd) Ch5. Linear Inequalities	3. To verify that the graph of a given inequality of the form $ax + by + c < 0$, $a, b > 0, c < 0$ represents only one of the two half planes.
Syllabus for Periodic Test-1: Chapters: 1, 2, 3 & 5		
August	Ch4. Complex Numbers and Quadratic equations Ch6. Permutations and Combinations	4. To interpret geometrically the meaning of i and its integral powers.
September	Ch6. Permutations and Combinations (contd)	5. To find the number of ways in which three cards can be selected from given five cards.
Syllabus for HYE: Chapters: 1, 2, 3, 4, 5 & 6		
October	Ch7. Binomial Theorem Ch8. Sequences and Series	6. To construct a Pascal's Triangle and to write binomial expansion for a given positive integral exponent.
November	Ch9. Straight Lines Ch10. Conic sections	7. To verify that the equation of a line passing through the point of intersection of two lines $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ is of the form $(a_1x + b_1y + c_1) + \lambda(a_2x + b_2y + c_2) = 0$.
December	Ch10. Conic sections (contd) Ch11. Introduction to three-dimensional geometry Ch13. Statistics	8. To construct a parabola.
Syllabus for Periodic Test-2: Chapters: 7, 8, 9 & 10		
January	Ch14. Probability Ch12. Limits and Derivatives	9. To find analytically limit of function where a at a point. 10. To write the sample space, when a die is rolled once as well as twice. Final Journal Submission
February	Revision	
Syllabus for AE: All Chapters as per revised syllabus		

SUBJECT: BIOLOGY

Month	Lessons/ Chapters	Activities/ Practical
April	Ch 1: The Living World Ch 2: Biological Classification Ch 3: Plant Kingdom	1. Parts of a compound microscope. 2. Specimens/slides/models and identification with reasons - Bacteria, Oscillatoria, Spirogyra, Rhizopus, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant, one dicotyledonous plant and one lichen.
May	Ch 4: Animal Kingdom Ch 5: Morphology of Flowering Plants	3. Virtual specimens/slides/models and identifying features of - Amoeba, Hydra, liver fluke, Ascaris, leech, earthworm, prawn, silkworm, honey bee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit. 4. Study and describe locally available common flowering plants, from family Solanaceae (Poaceae, Asteraceae or Brassicaceae) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams), type of root (tap and adventitious); type of stem (herbaceous and woody); leaf (arrangement, shape, venation, simple and compound)
June	Ch 5: Morphology of Flowering Plants Ch 6: Anatomy of Flowering Plants	5. Different types of inflorescence (cymose and racemose)
July	Ch 6: Anatomy of Flowering Plants Ch 7: Structural Organisation in Animals Ch 8: Cell-The Unit of Life	6. Preparation and study of T.S. of dicot and monocot roots and stems (primary). 7. Study of distribution of stomata on the upper and lower surfaces of leaves. 8. Study of osmosis by potato osmometer. Project Allotment
Syllabus for Periodic Test-1: Ch 1,2,3,4,5,6		
August	Ch 8: Cell-The Unit of Life Ch 9: Biomolecules Ch 10: Cell Cycle and Cell Division	9. Test for presence of urea in urine. 10. Test for presence of sugar in urine 11. Test for presence of albumin in urine. 12. Test for presence of bile salts in urine 13. Mitosis in onion root tip cells and animals cells (grasshopper) from permanent slides. 14. Study of plasmolysis in epidermal peels (e.g. Rhoeo/lily leaves or flashy scale leaves of onion bulb).
September	Ch 13: Photosynthesis in Higher Plants	15. Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.
Syllabus for HYE: Ch 1,2,3,4,5,6,7,8,9,10,13		
October	Ch 14: Respiration in Plants Ch 15: Plant - Growth and Development	16. Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials. 17. Comparative study of the rates of transpiration in the upper and lower surfaces of leaves.
November	Ch 17: Breathing and Exchange of Gases Ch 18: Body Fluids and Circulation Ch 19: Excretory Products and their Elimination	18. Separation of plant pigments through paper chromatography. 19. Human skeleton and different types of joints with the help of virtual images/models only.

December	Ch 19: Excretory Products and their Elimination Ch 20: Locomotion and Movement Ch 21: Neural Control and Coordination	Final Journal and Project Submission
Syllabus for Periodic Test-2: Ch 14, 15, 17, 18, 19, 20		
January	Ch 22: Chemical Coordination and Integration	
February	Revision	
Syllabus for AE: All Chapters		

SUBJECT: COMPUTER SCIENCE

Month	Lessons/ Chapters	Activities/ Practical
April	Ch 5: Getting Started with Python Ch 6: Python Fundamentals Ch 7: Data Handling	Programs based on print, input statements
May	Ch 7: Data Handling (Contd..)	Programs based on operators, datatypes and variables
June	Ch 4: Introduction to Problem Solving Ch 8: Flow of Control	Programs based on if else
July	Ch 8: Flow of Control (Contd..) Ch 9: String Manipulation	Programs based on Loops, and strings
Syllabus for Periodic Test-1: Chapters: 4, 5, 6, 7, 8		
August	Ch 9: String Manipulation (Contd..) Ch 10: List Manipulation	Programs based on Strings & Lists Introduction to Project
September	Revision	
Syllabus for HYE: Chapters: 4, 5, 6, 7, 8, 9, 10		
October	Ch 11: Tuples Ch 12: Dictionaries	Programs based on Tuples
November	Ch 12: Dictionaries (Contd..)	Programs based on Dictionaries
December	Ch 2: Data Representation Ch 3: Boolean Logic (Not given in the latest edition of textbook) Ch 1: Computer System Overview	Completion of Journal Project Work
Syllabus for Periodic Test-2: Chapters: 2, 3, 11 and 12		
January	Ch 14: Cyber Safety Ch 15: Online Access and Computer Security Ch 16: Society Law and Ethics	Project Work Final Journal and Project Submission
February	Revision	
Syllabus for AE: Full Syllabus as per CBSE		

SUBJECT: PHYSICAL EDUCATION

Month	Lessons/ Chapters	Activities/ Practical
April	Unit I: Changing Trends & Career in PE Unit II: Olympism	Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)* Practice **Skill Practice
May	Unit III : Physical Fitness, Wellness and Lifestyle	** Yoga Practice **Skill Practice
June	Unit: IV Physical Education & Sports for CWSN (CONTINUE)	**Skill Practice ** Record File – Ch.1 and Ch.2
July	Unit IV: Physical Education & Sports for CWSN (CONTINUE) Unit V: Yoga	
Syllabus for Periodic Test-1: UNIT-I, II, III, IV & V		
August	Unit VI: Physical Activity and Leadership	** Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)* Practice ** Record File – Ch.3
September	Unit VII: Test & Measurement	**Skill Practice ** Yoga Practice
Syllabus for HYE: UNIT-I, II, III, IV, V, VI		
October	Unit VII: Test & Measurement(CONTINUE) Unit VIII: Fundamentals of Kinesiology and Biomechanics in Sports. (CONTINUE)	**Skill Practice ** Yoga Practice
November	Unit VIII: Fundamentals of Kinesiology and Biomechanics in Sports. Unit IX: Psychology & Sports (CONTINUE)	**Skill Practice ** Record File – Ch.3 Yoga Practice
December	Unit IX: Psychology & Sports. Unit X: Training and Doping in Sports	** Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)* Practice
Syllabus for Periodic Test-2: UNIT-VII,VIII & IX		
January	Revision	
February	Revision	
Syllabus for AE: UNIT-I to UNIT-X		

SUBJECT: PSYCHOLOGY

Month	Lessons/ Chapters	Activities/ Practical
April	Ch-1 What is Psychology? Ch-2 Methods of Enquiry in Psychology	
May	Ch-2 Methods of Enquiry in Psychology	
June	*Ch-4 Human Development	

July	Ch-4 Human Development Ch-5 Sensory Attentional and Perceptual Processes	Practical: Case study/ interview (structured or unstructured)/survey/observation (topic shall be provided)
Syllabus for Periodic Test-1: Ch-1 & 2 *(Ch-3 is not a part of the syllabus as per CBSE)		
August	Ch-5 Sensory Attentional and Perceptual Processes	
September	Ch-6 Learning	
Syllabus for HYE: Ch- 1, 2 & 4		
October	Ch-6 Learning Ch-7 Human Memory	Experiment I: To draw a learning curve
November	Ch-7 Human Memory	
December	Ch-8 Thinking	Experiment II: Spaced and Unspaced Method of Learning
Syllabus for Periodic Test-2: Ch-5 & 6		
January	Ch-9 Motivation and Emotion	Submission of practical/project file
February	Revision	
Syllabus for AE: Complete syllabus Ch-1, 2, 4, 5, 6, 7, 8 and 9		

SUBJECT: INDIAN MUSIC (MELODIC INSTRUMENT)

Month	Topic/Theme	Activity
April	Parts of guitar and Learning the science of tuning.	Parts and tuning of Instrument and questions regarding Instrument To play C major scale on guitar (7 Natural notes) & to Play basic jingle with rhythm.
May June	Basic Shuddha swaras in Bilawal thaat (C major scale) Basic chord strumming with A minor & E minor chords. Study of Raag Bihag descriptively (Aaroh, Avroh, Aalap, Raga Parichay) Brief study of Nada, Shruti, Thaata, Jati, Laya, Alankar	To strum chords in 4\4 time. To play and recognise Raag Bihag, its Aaroh, Avroh and Pakad
July August	Brief history of Dhrupad (An ancient Gayan Shaili) Raag Bhimpalashi (detailed study) Masitkhani gat	To play Aaroh Avaroh , Aalap , & Basic Masitkhani gat on guitar To be able to identify the raag by listening the swaras
Syllabus for Periodic Test-1: Alankar, Laya, Raag Parichay of Raag Bihag, History of Drupad, Thaata, Jati, Naad		

September October	Musical Theory (Descriptive)	Brief study of the following Nada, Shruti, Swara, Saptak ,Thaat, jati, Laya, Tala. Brief study of the following Margi- Desi, Raga, Gat. Brief History of the following Dhrupad, Mastikhani and Razakhni Gat
Syllabus for HYE: Alankar, Laya, Raag Parichay of Raag Bihag, History of Drupad, Thaata, Jati, Naad Margi, Desi Raag, Masitkhani Gat, Basic nut chords strumming and Demonstrating raga, bihag, on instrument		
November December	Choice Raag (Razakhani Gat)	To play Aaroh Avaroh , Aalap , & Basic Razakhani gat on guitar in vilambit laya
Syllabus for Periodic Test-2: Razakhani Gat Alankar, Laya, Raag Parichay of Raag Bhimpalashi		
January	Taal Ektaal , Chautaal & Tritaal , Laya	Reciting the Thekas of Prescribed Talas with hand beats in Thah, digun,Chaugun, Teental, Chautala,Ektala
February	Revision of entire syllabus for exam preparation	Performances of raagas in syllabus with live rhythm
Syllabus for AE: Complete syllabus		

SUBJECT: INDIAN MUSIC (034 - VOCAL)

Month	Topic/Theme	Activity
April	Alankars & Laya	To sing and understand different combination of alankaras & presenting them in 3 layas. (Vilambit , Madhya , Drut)
May June	Raag Bihag & Bhimpalashi	To sing aaroh , avaroh , pakkad , raag vistaar & madhya laya bandhish with Swar aalap , Bol aalap , Sargam & Taan.
July August	Devotional & Semi classical song	To perform Raag based devotional song as well as any Sugam sangeet patriotic or folk based song.
Syllabus for Periodic Test-1: Alankars & Laya, Raag Bihag & Bhimpalashi, aaroh , avaroh , pakkad , raag vistaar, Swar aalap		
September October	Musical Theory (Descriptive)	Brief study of the following Nada, Shruti, Swara, Saptak ,Thaat, jati, Laya, Tala. Brief study of the following Margi- Desi, Raga, Gat. Brief History of the following Dhrupad, Khayal and Tarana Brief study of Musical elements in Natya Shastra
Syllabus for HYE: Topic 1: Alankars & Laya, Raag Bihag & Bhimpalashi, aaroh , avaroh , pakkad , raag vistaar, Swar aalap Topic 2 : Nada, Shruti, Swara, Saptak ,Thaat, jati, Laya, Tala. Topic 3 : Margi- Desi, Raga. Topic 4 : Khayal. Topic 5 : Musical elements in Natya Shastra.		
November December	Dhrupad – Dhamaar & Taal	To understand & able to sing the haveli sangeet in form of Dhrupad & Dhamar with Chautaal , Ektaal & Tritaal. Life sketch of Tansen , V D Palushkar & V N bhatkhande

Syllabus for Periodic Test-2:

Life sketch of Tansen , V D Palushkar & V N bhatkhande, Dhrupad-Dhamaar & Taal

January	Tarana & Tuning of Tanpura	To sing Tarana in Drut laya in raag Bhairavi
February	Revision of entire syllabus for exam preparation	Performances of raagas in syllabus with live rhythm

Syllabus for AE: Complete syllabus

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

Subject: Dance (Kathak)

Month	Lessons/ Chapters (Theory)	Activities (Practical)
June	Introduction of Indian Dance	Basic Warm-up Namaskar
July	Introduction of Classical Dance History & Development of Kathak	Shlokas Vandana\Bhajan
August	Definitions: Laya, Types of Laya, Taal, Taali, Khaali, Khand, Maatra	Hand Movements, Chakaars, Tatkaar, Tihaai, Angles
October	Definitions: Avartan, Tihaai, Chakkardar Tihaai, Tatkaar	Padhant of Teentaal & Japtaal (Introduction)
November	Definitions: Thaat, Aamad, Toda, Tukada, Natvari, Salami(Pranami)	Practical of Teentaal/Japtaal Thaat, Aamad, Toda, Tukada, Natvari, Salami(Pranami)
December	Definitions: Paran, Kavit, Toda, Tukada, Baant Nritta, Nritya, Natya	Practical of Teentaal/Japtaal Paran, Kavit, Toda, Tukada, Baant
January	Notations – Teentaal & Japtaal	Abhinaya/Bhaav Anga Gatbhaav, Gatnikaas
February	Revision of Whole Theory Part	Revision of Whole Practical Part With Live Music