

DELHI PUBLIC SCHOOL, GANDHINAGAR
SYLLABUS 2020 – 21
CLASS XI - SCIENCE

MONTH	MAIN COURSE BOOK (Hornbill)	SUPPLEMENTARY READER (Snapshots)	ADVANCED WRITING SKILLS	GRAMMAR	ACTIVITY
August	1. The Portrait of a Lady (Prose) 2. A Photograph (Poem) 3. The Laburnum Top (Poem)	1. The Summer of the Beautiful White Horse (Prose) 2. The Address (Prose)	1. Notice Writing 2. Poster Making	Integrated Grammar	
September	4. We're not Afraid to Die...(Prose) 5. Discovering Tut.... (Prose) 6. The Voice of the Rain (Poem)	3. Ranga's Marriage	3. Note Making and summarizing 4. Speech Writing. 5. Debate Writing	Determiners & Tenses Exercises	Listening & Speaking Skills(ASL) Practice
Syllabus for Periodic Test-1 Section A: Reading Comprehension. Section B: Integrated Grammar. Section C: Literature and Long Writing. The Portrait of a Lady (Prose), A Photograph (Poem), The Laburnum Top (Poem) The Summer of the Beautiful White Horse (Prose), The Address (Prose).					
October	7. Childhood (Poem) 8. The Browning Version (Prose)	4. Albert Einstein at School (Prose)	Letter Writing- A- Business: Inquiry, Reply, Placing Orders, Complaints.	Integrated Grammar	ASL Practice
November	9. Landscape of the soul (Prose)	5. Birth (Prose) 6. Mother's Day (Prose)	B. Letter to school/authority	Integrated Grammar	ASL
Syllabus for Half Yearly Examination- Section A: Reading Comprehension. Note Making. Section B: Writing Skills and Grammar. Notice Writing, Poster Making Letters- Official and Business Letters. Speech, Debate Integrated Grammar. Section C: Literature and Long Writing. The Portrait of a Lady (Prose), A Photograph (Poem), We're Not Afraid to Die.....(Prose), The Laburnum (Poem), Discovering Tut, Voice of the Rain (Poem), The Summer of the Beautiful White Horse(Prose), The Address (Prose), Ranga's Marriage (Prose), Albert Einstein (Prose)					
December	10. The Ailing Planet (Prose) 11. Silk Road	Revision	Note Making. (Revision)	Integrated Grammar	ASL Practice

Syllabus for Periodic Test-2					
Section A: Reading Comprehension and Note Making.					
Section B: Writing Skills and Grammar. Letter Writing, Speech Writing/Debate Writing Integrated Grammar.					
Section C: Literature and Long Writing. Childhood (Poem), The Browning Version (Prose), Landscape of Soul (Prose), Ailing Planet (Prose), Mother's Day (Prose)					
January	Revision	Revision	Revision	Integrated Grammar	Listening & Speaking Skills(ASL)
February	Revision	Revision	Revision		
Syllabus for Annual Examination (February-March)					
Complete Syllabus					

Subject: Physics

Month	Lessons/ Chapters	Activities/ Practicals
August	<p>1. Physical World and Basic Mathematics</p> <p>2. Units Measurement And Dimension</p>	
September	<p>3. Motion In One Dimension</p> <p>4. Motion In Two Dimension</p>	<p>A1. (a) To measure diameter of a small spherical/cylindrical body using Vernier Callipers. (b) To measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.</p> <p>Act1. To make a paper scale of given least count, e.g. 0.2cm, 0.5 cm.</p> <p>Act2. To plot a graph for a given set of data, with proper choice of scales and error bars.</p>
Syllabus for Periodic Test 1 - L-1, L-2 and L-3		
October	<p>5. Laws Of Motion</p> <p>6. Work Energy and Power</p> <p>7. System Of Particles And Rotational Motion</p>	<p>A2. (a) To measure diameter of a given wire using screw gauge. (b) To measure thickness of a given sheet using screw gauge.</p> <p>Act3. To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time.</p> <p>A3. To determine radius of curvature of a given spherical surface by a spherometer.</p>

Syllabus for Half Yearly Exam - L1, L2, L3, L4, L5, L6 and L7

November	<p>8. Gravitation</p> <p>9. Mechanical Properties of Solids</p>	<p>A4. To find the weight of a given body using parallelogram law of vectors.</p>
December	<p>10. Fluid Mechanics</p> <p>11. Thermal Properties of Gases</p>	<p>B1. To find the force constant of a helical spring by plotting a graph between load and extensions.</p> <p>Act4. To study the effect of detergent on surface tension of water by observing capillary rise.</p> <p>Act5. To observe and explain the effect of heating on a bi-metallic strip.</p>

Syllabus for Periodic Test 2 - L-8, L-9 and L-10

January	<p>12. Thermodynamics</p> <p>13. Kinetic Theory Gases</p>	<p>B2. To determine the surface tension of water by capillary rise method.</p> <p>B3. To study the relation between frequency and length of a given wire under constant tension using sonometer.</p>
February	<p>14. Oscillation</p> <p>15. Wave Motion</p>	<p>B4. To find the speed of sound in air at room temperature using a resonance tube by two resonance positions.</p> <p>Act6. To study the factors affecting the rate of loss of heat of a liquid.</p>
March	<p>15. Wave Motion (Contd...)</p> <p>Revision for Final Examinations</p>	<p>Revision For Final Exam</p>

Annual Examination Full Syllabus

Subject: Chemistry

Month	Lessons	Activities/Practicals
August	<p>1. Some basic concepts of Chemistry</p> <p>2. Structure of Atom</p> <p>3. Classification of elements and</p>	

	periodicity in properties	
September	4. Chemical Bonding and molecular structure. 5. States of Matter: Gases and Liquids	1. Determination of molarity and strength of HCl solution using M/10 NaOH solution. 2. Determination of molarity and strength of NaOH solution using M/20 Oxalic acid solution. 3. Determination of molarity and strength of HCl solution using M/20 Na ₂ CO ₃ solution.
SYLLABUS FOR PERIODIC TEST-1 Lesson: 01 ,02 and 03		
October	6. Thermodynamics 7. Equilibrium.	4. Inorganic salt analysis [Pb (NO ₃) ₂] 5. Inorganic salt analysis [CuSO ₄ , FeCl ₃] 6. Inorganic salt analysis [Al (NO ₃) ₃ , NiSO ₄ , CoCl ₂]
SYLLABUS FOR HALF YEARLY EXAMINATION Lesson : 01, 02, 03, 04, 05, 06 & 07		
November	8. Redox Reactions 9. Hydrogen	7. Inorganic salt analysis [NH ₄ Br, Ba (NO ₃) ₂ , Sr (NO ₃) ₂] 8. Inorganic salt analysis [CaCl ₂ , MgSO ₄ , (CH ₃ COO) ₂ Pb]
December	10. s-Block Elements 11. p-Block Elements	9. Preparation of pure crystals of Copper sulphate from impure sample. 10. Preparation of pure crystals of Benzoic acid from impure sample.
SYLLABUS FOR PERIODIC TEST-2 Lesson : 08 , 09 & 10		
January	12. Organic Chemistry: Some basic Principles and Techniques 13. Hydrocarbon	11. Preparation of pure crystals of alum from impure sample.
February	13. Hydrocarbon (Cont.) REVISION	Revision and Completion of Journal.
March	REVISION	
ANNUAL EXAMINATION: COMPLETE SYLLABUS		

Subject: Biology

Month	Lessons/ Chapters	Activities/ Practical
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August	<p>1.The Living World</p> <p>2. Biological Classification</p> <p>3. Plant Kingdom</p>	
September	<p>4. Animal Kingdom</p> <p>5. Morphology of Flowering Plants</p> <p>7. Structural Organization in Animals</p>	<p>B1. Study of the parts of a compound microscope.</p> <p>B2. Study of the 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.</p> <p>B3. Study of virtual specimens/slides/ models and identification with reasons - Amoeba, Hydra , liverfluke, Ascaris, leech, earthworm, prawn, silkworm, honeybee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.</p>
<u>Syllabus for Periodic Test 1- CH- 1,2,3 and 4</u>		
October	<p>8. Cell</p> <p>9.Biomolecules</p>	<p>A1. Study and describe a locally available common flowering plant, from any one family: Solanaceae or Liliaceae (Poaceae, Asteraceae or Brassicaceae can be substituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams).</p> <p>B4. Study of tissues and diversity in shapes and sizes of animal cells (squamous epithelium, muscle fibers and mammalian blood smear) through temporary/permanent slides.</p>
<u>Syllabus for Half Yearly Examination- CH- 1,2,3,4,5,7,8 and 9</u>		
November	<p>10. Cell cycle</p>	<p>B5. Study of mitosis in onion root tip cells and animals cells (grasshopper) from permanent slides.</p> <p>A2. Study of distribution of stomata in the upper and lower surface of leaves.</p> <p>A3. Separation of plant pigments through paper chromatography.</p> <p>Submission of project (rough)</p>
December	<p>13: Photosynthesis in Higher Plants</p>	<p>A4. Study of the rate of respiration in flower buds/leaf tissue and germinating</p>

	14: Respiration in Plants 15: Plant - Growth and Development	seeds. A5 – A6. Test for presence of sugar and albumin.
Syllabus for Periodic Test-2 – CH 10,13,14 and 15		
January	17: Breathing and Exchange of Gases 18: Body Fluids and Circulation 19: Excretory Products and Their Elimination	Submission of project (final copy)
February	20: Locomotion and Movement 21: Neural Control and Coordination 22: Chemical Coordination and Integration	Revision and Completion of Journal.
Syllabus for Annual Examination - All Chapters		

Subject: Mathematics

Month	Lessons	Activities
August	1. Sets 2. 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 .
September	2. Relations and Functions (Contd...) 5. Complex Numbers and Quadratic equations 6. Linear Inequalities	2. To represent set theoretic operations using Venn diagrams. 3. To interpret geometrically the meaning of $i = \sqrt{-1}$ and its integral powers.
Syllabus for P.T. 1 : Chapters : 1, 2, 5 and 6		
October	6. Linear Inequalities (Contd...) 7. Permutations and Combinations 3. Trigonometric Functions	4. 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. 5. To find the number of ways in which three cards can be selected from given five cards.
November	3. Trigonometric Functions (Contd...)	6. To plot the graphs of $\sin x, \sin 2x, 2\sin x$ and $\sin \frac{x}{2}$, using same coordinate

	9. Sequences and Series	axes.
Syllabus for H. Y : Chapters : 1, 2, 3, 5, 6 and 7		
December	9. Sequences and Series (Contd...) 10. Straight Lines 11. 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 $(a_1x + b_1y + c_1) + \lambda(a_2x + b_2y + c_2) = 0$.
January	11. Conic sections (Contd...) 12. Introduction to three dimensional geometry 15. Statistics	8. To construct a parabola.
Syllabus for P.T. 2 : Chapters : 9, 10 and 11		
February	15. Statistics (Contd...) 16. Probability 13. Limits and Derivatives	9. To find analytically $\lim_{x \rightarrow c} f(x)$ where $f(x) = \frac{x^2 - c^2}{x - c}$ 10. To write the sample space, when a die is rolled once, twice .
March	13. Limits and Derivatives (Contd...)	
Syllabus for Annual Examination : All Chapters as per revised syllabus		

Subject: Physical Education

Month	Lessons	Activities/ Practical
August	1. Changing trends and Career in Physical education. 2. Olympic Value education.	
September	3. Physical Fitness, wellness& life 4. Physical Education& Sports for CWSN	
Syllabus for Periodic Test-1 : 1 ,2 & 3		

October	4. Physical Education& Sports for CWSN (continue) 5. Yoga 6. Physical Activity & Leadership Training (Continue)	
Syllabus for Half Yearly Examination- 1, 2, 3 , 4 &5		
November	6. Physical Activity & Leadership Training 7. Test, Measurement & Evaluation	
Syllabus for Periodic Test-2 : 6 & 7		
December	7. Test Measurement & Evaluation (continue) 8. Fundamental of Anatomy , Physiology & Kinesiology in sports(Continue)	
January	9. Psychology & Sports.	
February	10. Training and Doping sports	
March	Revision(1 st & 2 nd Week)	

Subject: Computer Science

Month	Lessons	Activities
August	6. Getting Started with Python 7. Python Fundamentals	Program based on print, input
September	8. Data Handling 9. Flow of Control	Program based on operators, Loops
Syllabus for P.T. 1: 6, 7, 8 and 9		
October	10. String Manipulation 11. List Manipulation	Program based on Strings and Lists
Syllabus for Half Yearly Examination: 6,7,8,9,10,11		
November	12. Tuples 13. Dictionaries	Program based on Tuples and Dictionaries
December	1. Computer System Overview 2. Data Representation 3. Boolean Logic	Program based on Tuples and Dictionaries
Syllabus for P.T. 2 : 1,2,12 and 13		
January	15. Cyber Safety 16. Online Access and Computer Security 17. Society Law and Ethics	Project Work

February	17. Society Law and Ethics....continue 5. Introduction to Problem Solving 14. Understanding Sorting	Project Work Submission
March	4. Insight into Program Execution	
Syllabus for Annual Examination : All chapters		



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