



DELHI PUBLIC SCHOOL DHENKANAL

SESSION 2022-23

CLASS 11 SCIENCE

Month	SUBJECT	Topics to taught
JULY	ENGLISH	Introduction to the Curriculum Hornbill : The Portrait of a Lady , A Photograph (Poem) Snapshots: The Summer of the Beautiful White Horse Reading & Writing Skills: Reading comprehension and Classified advertisement and Poster Grammar & Language Activities: Tenses and ASL
	MATHS	Ch-1: - Sets Ch-2: - Relations and Functions (Contd.) Ch-3: - Trigonometric Functions (Contd.)
	PHYSICS	Physical world ,Units and measurement Motion in a straight line Motion in a Plane
	CHEMISTRY	Unit I: 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. Unit II: 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
	COMPUTER SCIENCE	Computational Thinking and Programming – 1 Getting started with python Python fundamental

	PHYSICAL EDUCATION	Changing trend and career in physical education
	BIOLOGY	Ch 1- The living world Ch 2-Biological Classification Ch 8-Cell-The unit of life
AUG	ENGLISH	Hornbill:We're Not Afraid to die if we can.... and The Laburnum Top(Poem) Snapshot :The Address Reading & Writing Skills: Note making and Summarization and Speech Grammar &Language Activities: Clauses and ASL
	MATHS	Ch-2: - Relations and Functions Ch-3: - Trigonometric Functions Ch-4: - Complex Numbers and Quadratic Equations Ch-5: - Linear Inequalities
	PHYSICS	Motion in a Plane(Contd.) Laws of motion Work and Energy
	CHEMISTRY	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 completely filled orbitals. Unit III: 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

	BIOLOGY	Ch 4-Animal kingdom Ch 7-Structural organisation in animals Ch 9-Biomolecules
	COMPUTER SCIENCE	Computational Thinking and Programming – 1 <ul style="list-style-type: none"> • Data handling • Conditional and iterative statements • Debugging programs
	PHYSICAL EDUCATION	Olympic and value education
SEPTEMBER	ENGLISH	Hornbill : Discovering Tut: The Saga continues and The Voice of the Rain (Poem) Snapshot :Mother's Day Reading & Writing Skills: Reading comprehension and Debate writing Grammar &Language Activities: Clauses and ASL

	MATHS	Ch-6: - Permutations and Combinations Ch-8: - Sequence and Series (Contd.)
	PHYSICS	Work and Energy(Contd.) Motion of system of particles Gravitation
	CHEMISTRY	Periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency. Nomenclature of elements with atomic number greater than 100. Unit IV: Chemical Bonding and Molecular Structure : Valence electrons, ionic bond, covalent bond, bond parameters, Lewis's structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules (qualitative idea only), Hydrogen bond
	BIOLOGY	Ch 10-Cell cycle and cell division Ch 17-Breathing and exchange of gases Ch 3-Plant kingdom
	COMPUTER SCIENCE	Computer Systems and Organization <ul style="list-style-type: none"> • Computer system overview • Data representation Society, Law and Ethics <ul style="list-style-type: none"> • Cyber safety • Online access and computer security.
	PHYSICAL EDUCATION	Physical fitness, wellness and lifestyle Physical education and sports for CWSN
OCTOBER	ENGLISH	Hornbill: The Adventure Snapshot :Birth Reading & Writing Skills: Reading comprehension and Classified Advertisement Grammar and Language Activities :Re-ordering of Sentences and ASL
	MATHS	Ch-7: - Binomial Theorem Ch-8: - Sequence and Series Ch-9: - Straight Lines (Contd.)
	PHYSICS	Gravitation(Contd.)

	CHEMISTRY	Unit VI: Chemical Thermodynamics : 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 ΔU and ΔH , Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. Second law of Thermodynamics (brief introduction) Introduction of entropy as a state function, Gibb's energy change for spontaneous and non- spontaneous processes, criteria for equilibrium. Third law of thermodynamics (brief introduction).
	BIOLOGY	Ch 18-Body fluids and circulation Ch 19-Excretory products and their elimination

	COMPUTER SCIENCE	Computer Systems and Organization <ul style="list-style-type: none"> • Boolean logic Computational Thinking and Programming – 1 <ul style="list-style-type: none"> • Insight into program execution.
	PHYSICAL EDUCATION	yoga
NOVEMBER	ENGLISH	Hornbill:Childhood Reading & Writing Skills: Reading comprehension and Poster Grammar & Language Activities: Tenses and ASL
	MATHS	Ch-9: - Straight Lines Ch-10:-Conic Sections (Contd.) Ch-11:-Introduction to Three-Dimensional Geometry
	PHYSICS	Properties of Bulk Matter
	CHEMISTRY	Unit VII: Equilibrium : Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle, ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH, hydrolysis of salts (elementary idea), buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples).
	BIOLOGY	Ch 14-Respiration in plants Ch 20- Locomotion and movement Ch 21-Neural control and coordination
	COMPUTER SCIENCE	Computational Thinking and Programming – 1 <ul style="list-style-type: none"> • String manipulation • List manipulation

	PHYSICAL EDUCATION	Physical activity and leadership training Test measurement and evaluation
DECEMBER	ENGLISH	Hornbill:Silk Road Reading & Writing Skills: Note making, Summarization and Speech Grammar &Language Activities : Clauses and ASL
	MATH	Ch-12:-Limits and Derivatives Ch-13:-Statistics (Contd.)

PHY Properties.Of Bulk matter(Contd.)
Thermodynamics
Kinetic theory of gas

	CHEM	Unit VIII: Redox Reactions : Concept of oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number, applications of redox reactions.
	BIOLOGY	Ch 13-Photosynthesis in higher plants Ch 22-chemical coordination and integration Ch 15-plant growth and development
	COMPUTER SC	Computational Thinking and Programming – 1 <ul style="list-style-type: none"> • Tuples • Dictionaries
	PHYSICAL EDU	Fundamental anatomy physiology, kinesiology in sports
JANUARY	ENGLISH	Hornbill:Father to Son Snapshots :The Tale of Melon City Reading & Writing Skills: Reading comprehension and Debate writing Grammar &Language Activities : Re-ordering of Sentences and ASL
	MATHS	Ch-13:-Statistics Ch-14:-Probability REVISION
	PHYSICS	Oscillation and Waves
	CHEMISTRY	Unit XII: Organic Chemistry -Some Basic Principles and Techniques : General introduction, methods of purification, qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation. Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions
	BIOLOGY	Ch 5-Morphology of flowering plant Ch 6-Anatomy of flowering plant

	COMPUTER SCIENCE	Computational Thinking and Programming – 1 <ul style="list-style-type: none"> Understanding sorting
	PHYSICAL EDUCATION	Psychology and sports Project work
FEBRUARY	ENGLISH	REVISION/TEST
	MATHS	REVISION/TEST
	PHYSICS	REVISION/TEST
	CHEMISTRY	Unit XIII: 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. Alkenes - Nomenclature, the 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), ozonolysis, oxidation, mechanism of electrophilic addition. Alkynes - Nomenclature, the structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water , REVISION/TEST
	BIOLOGY	REVISION/TEST
	COMPUTER SCIENCE	REVISION/TEST
	PHYSICAL EDUCATION	TRAINING AND DOPING IN SPORT , REVISION/TEST
MARCH	ENGLISH	ANNUAL EXAMINATION
	MATHS	
	PHYSICS	
	CHEMISTRY	
	BIOLOGY	
	COMPUTER SCIENCE	
	PHYSICAL EDUCATION	

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