



Doon Public School

A New Generation Sr. Sec. School | Affiliated to CBSE
Sector 21, Panchkula - 134 112 (Haryana)

Class- XII (Science) Syllabus for the Session 2025-26

English

Book Prescribed: NCERT			
	Months	Content	Learning Outcomes
Term -I	April & May June	Chapter No. 1: The Last Lesson (prose), Flamingo	Students will be able to: Remember: The theme and message and traits of Franz and M.Hamel Understand: The importance of one's own language, emotional state of M. Hamel Apply: Linguistic chauvinism and love for one's language in real life situation Analyze: The importance of a teacher in the life of a student
		Chapter No.2 : The Lost Spring(prose), Flamingo	Students will be able to: Remember: Traits of Sahib and Mukesh, theme and message of the chapter Understand: Harsh realities of slum children, importance of childhood and those traditions that condemn slum children to a life of exploitation Apply: The gained knowledge and understanding of character's situation into real life situation and be empathetic Analyze: The circumstances and situation of both the protagonists and that society and political class only add to the sufferings of the slum and poor children
		Chapter No. :My Mother at Sixty Six (Poem) Flamingo	Students will be able to: Remember: Theme, message and central idea of the poem Understand: Poetic devices used in the poem and that aging and death is inevitable Apply: The gained knowledge in cherishing the moments spent with loved ones and importance of living in present Analyze: The emotions and fear of losing the mother, bonding between mother- daughter, nostalgic childhood memories
		Chapter No. : Keeping Quit (Poem)Flamingo	Students will be able to: Remember: Theme, message and central idea of the poem Understand: Poetic devices used, interpretation, importance of introspection Apply: Introspection, brotherhood, process of healing and nature being the supreme teacher in real life Analyze: The power of introspection and global brotherhood
		Chapter No 1 : The Third Level (Prose) Vistas	Students will be able to: Remember: The setting of the chapter, the chronological events of the story Understand: Psychological impact of world wars on people and concept of escapism through Charlie Apply: The gained knowledge through Charlie and Sam's character in understanding people's mental situation Analyze: Charlie's personality and impact of grandfather, pre and post world war situations, in shaping his personality

	Chapter No.2 : The Tiger King (Prose) Vistas	Students will be able to: Remember: Pre independence era of royal families, theme and message of the chapter Understand: The character traits of the King, his motto of life and impact of prophecy in king's life Apply: The gained knowledge in real life situation and how the king lived and died just to challenge priest's prophecy Analyze: The character sketch of the king and his minister
	Chapter No.3: Deep Water (Prose), Flamingo	Students will be able to: Remember: Autobiographical element of the author, theme, message and the chronological events of the chapter in detail Understand: That childhood fears must never be treated lightly, if not tackled properly they make deep inroads in one's psychology Apply: The instances in real life and overcome any hesitation or fear and success can be achieved at point of time in the life (Douglas) Analyze: The situation of Douglas underwater and his attempts to come on the surface
	Chapter No. A Thing of Beauty (poem) Flamingo	Students will be able to: Remember: The theme and message of the poem Understand: The healing power of Nature and that it always give solace Apply: The contextual knowledge of the poem in the real life situation and living a worthy life Analyze: The importance of Nature and the bounties we have
	Chapter No.3 : Journey to the End of the Earth(Prose) Vistas	Students will be able to: Remember: The geological events during Gondwana land, flora and fauna of that time Understand: The importance of Antarctica region for the existence of human beings Apply: The information of the chapter in preserving and conserving polar regions to ultimately preserving Earth Analyze: The grave situation of climate impact and immediate steps to be taken by us
	Writing Skills: Notice and Job Application with resume and Letter to the Editor	Students will be able to: Remember: The format and structure Understand: The question to get the sender, receiver, and identify effective and noneffective elements Apply: Writing skills in real life scenario for effective communication Analyze: The appropriate use of language

Physics

Book Prescribed: NCERT			
	Months	Content	Learning Outcomes
Term - I	April & May	Chapter 1: Electric Charges and Fields	Students will be able to: Remember: Electric charge, Coulomb's law, conservation of charge Understand: The principle of superposition, concept of electric field, field lines, and continuous charge distribution Apply: Gauss's theorem to calculate the electric field due to various symmetrical charge distributions Analyze: The behaviour of electric field lines in different situations
		Chapter 2: Electrostatic Potential and Capacitance	Students will be able to: Remember: Electric potential, potential difference, and capacitance Understand: Potential due to point charge, dipole, and system of charges; equipotential surfaces Apply: The gained knowledge to solve numerical problems on capacitors with/without dielectric Analyze: Electric potential energy of charge systems
		Chapter 3: Current Electricity	Students will be able to: Remember: Ohm's law, resistivity, conductivity Understand: Drift velocity, mobility, V-I characteristics Apply: Kirchhoff's rules and solve circuit problems, calculate power and energy Analyze: Internal resistance and temperature dependence of resistors
		Chapter 4: Moving Charges and Magnetism	Remember: Oersted's experiment, Biot-Savart law, Ampere's law. Understand: Magnetic field concepts and force on moving charges. Apply: Concept of magnetic field for solenoids, circular loops, and current-carrying conductors. Analyze: Current loop as a magnetic dipole and torque on loop and functioning of galvanometer and its conversion into ammeter and voltmeter

Chemistry

Book Prescribed: NCERT			
	Months	Content	Learning Outcomes
Term - I	April & May	Chapter No. : 1 Solutions	Students will be able to: Remember: The types of solutions and concentration terms Understand: Raoult's law and colligative properties Apply: The knowledge to solve numerical problems on molarity and depression in freezing point Analyse: Deviations from ideal behaviour
		Chapter No. : 2 Electrochemistry	Students will be able to: Remember: The concept of oxidation, reduction, and cell terminology Understand: The working of galvanic and electrolytic cells Apply: The knowledge to calculate EMF and use Nernst equation. Analyse: Standard electrode potentials to predict reactions
		Chapter No. : 3 Chemical Kinetics	Students will be able to: Remember: The rate of reaction and related terms Understand: Rate laws and order of reactions Apply: The knowledge to solve numerical using integrated rate equations Analyse: Graphs and reaction mechanisms

Biology

Book Prescribed: NCERT			
	Months	Content	Learning Outcomes
Term - I	April & May	Chapter No. :1 Sexual reproduction in flowering plants	Students will be able to: Remember: The structure of stamen, pistil .and different types of pollination, : autogamy,geitonogamy, xenogamy Understand: The structure of T.S. anther, anatropous ovule, process of microsporogenesis, megasporogenesis, artificial hybridization, double fertilization, post-fertilization events, apomixis, parthenocarpy and polyembryony Apply: The gained knowledge to prepare temporary slide of pollen germination and to understand plant breeding and crop improvement Analyze: The different types of pollination with their advantages and evaluate the role of artificial hybridization in plant breeding
		Chapter No. 2: Human reproduction	Students will be able to: Remember: The male and female reproductive systems, the role of their primary sex organs, accessory glands, accesory ducts and external genitalia Understand: The processes of spermatogenesis, oogenesis, mentrual cycle, fertilization, implantation and parturition Apply: The gained knowledge to identify slides of T.S. testis, T.S. ovaries and T.S. blastula and understand reproductive health and fertility Analyze: The difference between spermatogenesis and oogenesis. and the importance of reproductive health in maintaining overall health
		Chapter No. :3 Reproductive health	Students will be able to: Remember: The meaning of reproductive health, problems faced and strategies to solve reproductive health problems Understand: The different methods of contraception, MTP, causes, symptoms, and treatment of STIs, and methods to have children like IVF, ZIFT, GIFT, IUT, ICSI, AI, IUI Apply: The gained knowledge of reproductive health to understand the impact of reproductive health issues on individuals and communities Analyze: The impact of reproductive health issues on individuals and communities and evaluate the importance of reproductive health education and awareness
		Chapter No.: 4 Principles of Inheritance and Variation	Students will be able to: Remember: The definition of inheritance and variation and Mendel's laws of inheritance Understand: The monohybrid and dihybrid crosses, evaluate phenotypic and genotypic ratio in different generations, incomplete dominance, co-dominance, sex- determination, genetic and chromosomal disorders Apply: The gained knowledge to predict the probability of different genotypes and phenotypes and to understand the inheritance of traits in humans Analyze: The different inheritance patterns and the impact of genetic variation on evolution and adaptation
		Chapter No.:5 Molecular Basis of Inheritance	Students will be able to: Remember: The structure and function of DNA and RNA Understand: The molecular mechanisms of DNA replication,

			<p>Transcription and Translation, Genetic code, mutations, goals and objectives of Human Genome project, Regulation of gene expression- lac operon, DNA fingerprinting</p> <p>Apply: The gained knowledge of DNA structure and replication to understand genetic inheritance</p> <p>Analyze: The impact of genetic mutations on gene expression and protein function</p>
--	--	--	--

Mathematics

Book Prescribed: NCERT			
	Months	Content	Learning Outcomes
TERM-I	April & May	Chapter No. Matrices	<p>Students will be able to:</p> <p>Remember: The concept of matrices, Operations on matrices and its types : zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices</p> <p>Understand: The properties of addition, multiplication of matrices and scalar multiplication</p> <p>Apply: Addition and multiplication of matrices and scalar multiplication to real life problems</p> <p>Analyze: Non- commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2) ; Invertible matrices and proof of the uniqueness of inverse, if it exists</p>
		Chapter No. Determinants	<p>Students will be able to:</p> <p>Remember: The key terms : Determinant of a square matrix , minors and co-factors</p> <p>Understand: The method of finding the adjoint and inverse of a square matrix and number of solutions of system of linear equations ; Consistency and inconsistency of solutions</p> <p>Apply: The acquired knowledge to solve the system of linear equations in two or three variables (having unique solution) using inverse of a matrix</p> <p>Analyze: Adjoin and inverse of a square matrix.</p>
		Chapter No. Relations and Functions	<p>Students will be able to:</p> <p>Remember: Types of relations: reflexive, symmetric, transitive and equivalence relations</p> <p>Understand: Equivalence relations and Bijective mappings</p> <p>Apply:</p> <p>Apply: The gained knowledge to identify Equivalence relations and Bijective mappings</p> <p>Analyze: Different types of relations and functions</p>
		Chapter No. Inverse Trigonometric Functions	<p>Students will be able to:</p> <p>Remember: Inverse trigonometric functions , their domain and range</p> <p>Understand: The concept of Inverse Trigonometric Functions and their relationship to trigonometric functions</p> <p>Apply: The gained knowledge to solve problems in trigonometry and geometry</p> <p>Analyze: The restrictions on the domain and range of inverse trigonometric functions</p>

Computer Science

Book Prescribed: Computer Science with Python (Sumita Arora - Dhanpat Rai Pub.)			
	Months	Content	Learning Outcomes
Term -I	April & May	Chapter No. : 8 Computer network- I	Students will be able to: Remember: Fundamentals requirements and application of Networking Understand: Explain how data is transferred in a network. Apply: Demonstrate how to connect computers in a simple network. Analyze: Compare advantages and disadvantages of different network topologies.
		Chapter No. : 9 Computer network- II	Students will be able to: Remember: Define networking devices such as router, switch, hub, modem, etc Understand: Illustrate how a basic network setup works. Apply: Apply appropriate protocols for specific network tasks (e.g., using FTP to transfer files).Set up a basic wireless network using a router and wireless devices. Analyze: Evaluate the suitability of various network protocols .
		Chapter No. : 1 Python Revision Tour -I	Students will be able to: Remember: Token, Flow of control and looping statements Understand: Describe the difference between entry-controlled & count-controlled loops, use of break and continue within loops and execution flow of conditional statements. Apply: Solve simple real-life problems using loops. Analyze: Debug and correct logic errors in programs involving loops or conditions. Trace the flow of execution in nested conditional or looping structures.
		Chapter No. : 1 Python Revision Tour -II	Students will be able to: Remember: List, Tuple, strings, tuples, and dictionaries in Python and built-in functions. Understand: Explain how dictionaries store data in key-value pairs. Python code that uses loops to access elements in lists, tuples, or dictionaries. Apply: Python programs to perform basic operations (add, delete, modify) on lists, tuples, and dictionaries. Analyze: A given piece of code and predict the output or detect logical errors.

Physical Education

Book Prescribed: S.P Book			
	Months	Content	Learning Outcomes
Term -I	April & May	UNIT-1 Management of sporting events	Students will be able to: Remember: Key terms related to event management; Recall different types of sporting events and the stages of event planning Understand: The principles of event management within the context of sports and connection between sport, culture, and community development through events Apply: The gained knowledge to use management principles to design an organizational chart for a sports event ; apply risk management techniques to real-life sports scenarios Analyze: The effectiveness of past sporting events in terms of logistics, audience engagement, and media coverage and identify challenges in managing sporting events and propose solutions

		UNIT-2 Children and Women in Sports	<p>Students will be able to:</p> <p>Remember: Policies and programs that support children and women in sports and define key terms related to gender equity and youth participation in sports</p> <p>Understand: The physical, psychological, and social benefits of sports for children and women and the developmental considerations in training children in sports</p> <p>Apply: Gained knowledge to design a basic training schedule tailored for children or female athletes and apply principles of inclusivity and safety in planning physical activities</p> <p>Analyze: The impact of social, cultural, and economic factors on women's involvement in sports and evaluate the effectiveness of government policies or school programs promoting sports among children and women</p>
		UNIT-10 Training in sports	<p>Students will be able to:</p> <p>Remember: The concept of term training in the context of sports, different types of training and basic training principles</p> <p>Understand: The objectives and importance of training in enhancing sports performance and the role of warm-up, cool-down, and recovery in training sessions</p> <p>Apply: The gained knowledge to design a basic weekly training plan for an athlete in a specific sport and demonstrate proper techniques for basic strength or endurance exercises</p> <p>Analyze: The common training errors or injuries, the training needs of athletes from different sports and the effectiveness of a given training plan using performance outcomes.</p>

Early Childhood Care and Education

Book Prescribed: NCERT			
	Months	Content	Learning Outcomes
Term -I	April & May	Unit I-Communication Skills	<p>Students will be able to:</p> <p>Remember: The key components of effective communication</p> <p>Understand: The process and importance of communication skills</p> <p>Apply: Active listening and use appropriate communication techniques in group discussions</p> <p>Analyze: Real-life scenarios to identify communication gaps and suggest improvements</p>
		Unit I Foundations of Child Development	<p>Students will be able to:</p> <p>Remember: Important terms such as growth, maturation, and development</p> <p>Understand: The major factors influencing child development (heredity, environment, nutrition, etc.)</p> <p>Apply: The acquired knowledge to observe and record child behavior to identify developmental milestones</p> <p>Analyze: Case studies to identify delays or advancements in development</p>
		Unit: II Self-Management Skills	<p>Students will be able to:</p> <p>Remember: The meaning of terms like self-discipline, punctuality, self-motivation, and organizational skills.</p> <p>Understand: How good self-management influences a caregiver's efficiency, behavior, and relationships with children, parents, and colleagues</p> <p>Apply: Self-motivation and goal-setting skills while planning a class activity or maintaining a routine</p> <p>Analyze: How poor self-management may affect classroom behavior, children's learning, or teamwork</p>

Library & Information Science

Book Prescribed: CBSE			
	Months	Content	Learning Outcomes
TERM-I	April & May	Chapter No. : 1 Communication Skills IV (Employability Skills)	Students will be able to: Remember: The do's and don't of good communication Understand: The importance of good communication to enhance personality Apply: The skill of communication for impactful conversation Analyze: The need of good communication in one's life
		Chapter No. : Library Management	Students will be able to: Remember: The fundamental facts and concepts related to library operations Understand: The concept of library management and stock verification Apply: The gained knowledge in practical or simulated tasks Analyze: The challenges faced in the management of library such as system break down, stock discrepancy and the ways to resolve those
		Chapter No. : Self-Management Skills-IV	Students will be able to: Remember: The basic facts, definitions, and concepts related to self-management Understand: The importance of self motivation and self management Apply: The techniques of self management in daily life situations Analyze: The complex behavior patterns or problems to understand causes and effects

Marketing

Book Prescribed: CBSE Notes			
	Months	Content	Learning Outcomes
TERM-I	April & May	Unit - Product	Students will be able to: Remember: The definition of product, product mix, and types of products; Features of consumer goods and industrial goods; Stages of the Product Life Cycle (PLC) Understand: The concept and importance of branding, labelling, and packaging; The role of product innovation in marketing success Apply: The acquired knowledge to classify real-world products into consumer and industrial goods and design a basic product portfolio for a new company Analyze: The product strategies of two competing brands; Reasons behind the success or failure of products and the impact of packaging and labelling on consumer choice

Applied Mathematics (241)

Book Prescribed: NCERT			
	Months	Content	Learning Outcomes
Term -I	April & May	Chapter: Matrices	Students will be able to: Remember: The concept of matrices, Operations on matrices and its types : zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices Understand: The properties of addition, multiplication of matrices and scalar multiplication Apply: Addition and multiplication of matrices and scalar multiplication to real life problems

			<p>Analyze: Non- commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2) ; Invertible matrices and proof of the uniqueness of inverse, if it exists</p>
		Chapter :Determinants	<p>Students will be able to: Remember: The key terms : Determinant of a square matrix , minors and co-factors Understand: The method of finding the adjoint and inverse of a square matrix and number of solutions of system of linear equations ; Consistency and inconsistency of solutions Apply: The acquired knowledge to solve the system of linear equations in two or three variables (having unique solution) using inverse of a matrix Analyze: Adjoint and inverse of a square matrix.</p>
		Ch- Financial Mathematics	<p>Students will be able to: Remember: The concept of perpetuity and sinking fund Understand: The difference between sinking fund and saving account and the concept of EMI Apply: The gained knowledge to calculate EMI using various methods and Compound Annual Growth Rate Analyze: Different investment options and the impact of interest rates on investments and loans</p>
		Chapter No. :Numbers, Quantification and Numerical Applications	<p>Students will be able to: Remember: The key terms modulus of an integer, congruence modulo Understand: The comparison between two statements/situations which can be compared numerically Apply: Modulus and conjugate to simplify complex expressions; the definition in various problems Analyze: The appropriateness of numerical methods for specific problems</p>

