CURRICULUM
GRADE-X



ENGLISH

BACKGROUND

At the secondary stage of English language learning, the textual materials and other resources should represent a wide range of learning experiences. Literature has always played a significant role in learning language. However, it is felt that pupils should be apprised of contemporary issues, read authentic literature and experiences of people to reflect and build their personality traits.

While there is a trend for inclusion of a wider range of contemporary and authentic texts, accessible and culturally appropriate pieces of literature should play a pivotal role at the secondary stage of education. The English class is meant for reading literature from different perspectives and to engage in activities for developing communicative competence, creativity and enrichment of language skills. It should not be seen as a place merely to read poems and stories in, but an area of activities to develop the learner's imagination as a major aim of language study and to equip the learner with communicative skills to perform various language functions through speech and writing.

Objectives

The objectives of the course are to enable learners to:

- *build greater confidence and proficiency in oral and written communication*
- *develop the ability and knowledge required to engage in independent reflection and inquiry*
- *make appropriate usage of the English language to communicate in various social settings*
- *equip learners with essential language skills to question and to articulate their point of view*
- *build competence in the different aspects of the language*
- *Develop sensitivity to and appreciation of world literature representing varieties of English and cultures embedded in it*
- *Enable the learner to access knowledge and information through reference skills (consulting a dictionary/thesaurus, library, internet, etc.)*
- *develop curiosity and creativity through extensive reading*
- *facilitate self-learning to enable them to become independent learners*
- *review, organize and edit their own work and work done by peers*
- *Integrate listening and speaking skills in the curriculum.*
- *Retell the contents of authentic audio texts (weather reports, public announcements, simple advertisements, short interviews, etc.)*
- *participate in conversations, discussions, etc., on the topics of mutual interest in non-classroom situations*
- *respond, in writing, to formal letters, based on the given situation*
- *Read and identify the main points / significant details of texts like scripts of audio-video interviews, discussions, debates, etc.*
- *write without prior preparation on a given topic and be able to defend or explain the stand taken / views expressed*
- *write a summary of short lectures on familiar topics by making/taking notes*
- *read poems effectively (with proper rhythm and intonation)*
- *transcode information from a graph/chart to a description/report*

Language Items

In addition to consolidating the grammatical items practised earlier, the course at the secondary level seeks to reinforce the following explicitly:

- *Sequence of tenses, reported speech in extended texts*
- *Modal auxiliaries (those not covered at upper primary), non-finites (infinitives, gerunds, participles)*
- *Conditional clauses, Complex and compound sentences*
- *Phrasal Verbs and prepositional phrases*
- *Cohésive devices, punctuation (semicolon, colon, dash, hyphen, parenthesis or use of brackets and exclamation mark)*

Month	***Concept***	***Objective/Theme***
April	*1. Discussion of curriculum and paper pattern* *2. Internal Assessment (ALS & Project)*	❖ *Acquainting the students with the new paper pattern and marking scheme*
	A Letter to God	❖ *Unwavering faith in God, conflict between mankind and nature and mankind itself*
	Poem- *Dust of Snow*	❖ *Small moments in nature can transform a gloomy mood into hope and positivity*
	Poem- *Fire and Ice*	❖ *Uncontrolled human emotions like desire and hatred can destroy the world*
	Grammar - *Tenses & Determiners*	❖ *Explanation and Practice*
	Nelson Mandela: Long Walk to Freedom	❖ *Struggle for freedom and equality through courage and perseverance*
	Glimpses of India: *I. A Baker from Goa* *II. Coorg* *III. Tea from Assam*	❖ *Three different units–* ❖ *Pen-portrayal of a traditional Goan village baker;* ❖ *Coorg, a coffee country famous for its rainforest and spices* ❖ *A tea garden in upper Assam*
	Words & Expressions- II-Unit 1	❖ *Explanation and Practice*
June	*Two Stories about Flying:* *I. His First Flight* *II. The Black Aeroplane*	❖ *overcoming fear and gaining confidence through courage and determination.* ❖ *Fantasy and the help rendered by the mysterious black Aeroplane*
	Writing Skills*- Formal Letters: Editor & Complaint*	❖ *Explanation and Practice*
	A Triumph of Surgery	❖ *Importance of proper care, discipline, and balanced affection in ensuring a healthy life* ❖ *Analysis by the doctor and treatment*
	Grammar- *Modals*	❖ *Explanation and Practice*
	Words & Expressions- II-Unit 2 & Unit 3	❖ *Explanation and Practice*

Month	Concept	Objective/Theme
July	**Poem-** A Tiger in the Zoo	❖ Freedom v/s Captivity
	From the Diary of Anne Frank	❖ Indomitable human spirit and hope amidst extreme adversity and confinement
	Writing Skills -Formal Letters: Enquiry & Placing Order	❖ Explanation and Practice
	The Midnight Visitor	❖ Cleverness and resourcefulness of an individual in a challenging situation
	Poem- The Ball Poem	❖ Learning to accept loss and growing emotionally through responsibility
	Poem- How To Tell Wild Animals	❖ Humorous portrayal of wild animals
	Words & Expressions- II-Unit 4	❖ Explanation and Practice
August	The Thief's Story	❖ Trust, kindness, and education can transform a person's character
	Grammar- Subject Verb Concord	❖ Explanation and Practice
	Mijbil the Otter	❖ Deep bond between humans and animals and the joy of companionship
	Madam Rides the Bus	❖ child's curiosity, independence, and her gradual understanding of life's realities
	Writing Skills- Analytical Paragraph	❖ Explanation and Practice
	Footprints without Feet	❖ Misuse of scientific power and how invisibility leads to moral corruption and isolation
	Poem- Amanda!	❖ child's longing for freedom and individuality under constant parental control ❖ proper upbringing
	Words & Expressions- II- Unit 7 & Unit 8	❖ Explanation and Practice
September	The Making of a Scientist	❖ Curiosity, perseverance, and hard work are essential to be a successful scientist
	Poem- The Trees	❖ Struggle for freedom and the breaking of confinement, symbolising women's quest for independence
	A Question of Trust	❖ deception and betrayal, showing how appearances can be misleading
	Grammar - Reported Speech 1) Commands & requests 2) Statements 3) Questions	❖ Explanation and Practice

Month	*Concept*	*Objective/Theme*
October	***Poem –*** *Fog*	❖ *Description of fog as a living creature, quiet and mysterious movement of nature*
	The Sermon at Benares	❖ *The significance of Sermon* ❖ *Death is the ultimate truth of life*
	The Necklace	❖ *Young lady's plight on losing a borrowed piece of jewellery* ❖ *Satisfaction is the best jewel*
	Poem – *The Tale of Custard the Dragon*	❖ *A humorous ballad close to a parody* ❖ *certain qualities like bravery and courage are situational and spontaneous*
	Bholi	❖ *Differently abled child and the mentor's role*
	Words & Expressions- II-Unit 9 & 10	❖ *Explanation and Practice*
November	*The Proposal*	❖ *One-act play, a farce, shows the absurdity of marriage based on materialism and ego rather than love and understanding*
	Poem- *For Anne Gregory*	❖ *True love values inner beauty and character over physical appearance*
	The Book that Saved the Earth	❖ *A 25th century invasion* ❖ *Intelligence and presence of mind can prevent conflict, while misunderstandings can lead to unnecessary fear and destruction*
	Words & Expressions: II-Unit 11	❖ *Explanation and Practice*

HINDI

<u>प्रस्तावना</u>

पाठ्यक्रम में हिंदी विषय की उपयोगिता

भाषा मनुष्य के बीच संवाद का माध्यम ही नहीं है अपितु भाषा में मनुष्य के संस्कार, उसकी अस्मिता और पीढ़ियों से संचित गौरव अंतर्निहित है।

एक औार जहाँ भाषा मनुष्य को सभ्यता, संस्कृति, साहित्य और ज्ञान–विज्ञान की विरासत को अक्षुण्ण रखती है वहीं आधुनिक संदर्भो में विकास के प्रतीकों को राष्ट्र के गौरव के रूप में सहजने का कार्य भी करती है। अतः संवैधानिक रूप से भारत की प्रथम राजभाषा तथा सर्वाधिक बोली और समझे जानी वाली भाषा हिंदी का पाठ्यक्रम में चयन विभिन्न उद्देश्यों को ध्यान में रखते हुए किया गया है जिसमें विद्यार्थियों का भाषिक दायरा एवं वैचारिक समृद्धि का विकास, सृजनात्मकता और संवेदनशीलता का परिष्कार, सौंदर्य बोध की समृद्धि, जीवन के विविध संदर्भो से जोड़ने वाले मानवीय गुणों का विकास आदि प्रमुख हैं।

हिंदी भाषा शिक्षण के विशिष्ट उद्देश्य–

1. विद्यार्थियों को हिंदी साहित्य की समृद्धि और शक्ति से परिचित कराना।
2. विद्यार्थियों में कल्पनाशीलता, विस्मय, कौतुहल, जिज्ञासा एवं सृजनात्मकता का विकास करना
3. भाषा एवं साहित्य के माध्यम से सांस्कृतिक धरोहर से विद्यार्थियों को जोड़ने का प्रयास करना
4. गद्य विधाओ के माध्यम से वैयक्तिक गुणों और क्षमताओं का विकास करना
5. परंपरागत पद्धतियों से आगे बढ़कर आधुनिक जीवन के परिवेश, समकालीन यथार्थ तथा मानवीय मूल्यों के प्रति अडिग आस्था विकसित करना।

पाठ्यचर्या कक्षा– दसवीं

शिक्षार्थियों में श्रवण, कथन, पठन एवं लेखन कौशल में दक्षता हेतु आयाम

माह	अवधारणा	कौशल श्रवण – कथन – पठन – लेखन – कौशल
अप्रैल	हिंदी भाषा का स्वरूप	• वर्णमाला मात्रा / वर्तनी
	नेताजी का चश्मा – स्वयं प्रकाश	• कहानी का पठन – पाठन, सरलीकरण, वस्तुनिष्ठ प्रश्न, प्रश्नोत्तर
	अनुच्छेदन लेखन	• अभ्यास पत्रक के माध्यम से
	अलंकार – उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति, मानवीकरण	• परिभाषा प्रकार एवं उदाहरण वस्तुनिष्ठ प्रश्न।
	पत्र लेखन	• अभ्यास पत्रक के माध्यम से
	सूर के पद – सूरदास	• भक्तिकाल – सूरदास एवं भ्रमरगीत
जून	माता का आँचल – शिवपूजन सहाय	• आँचलिक उपन्यास परंपरा, आदर्श – अनुकरण वाचन, प्रश्नोत्तर
	वाक्य भेद – (रचना की दृष्टि से)	• परिभाषा, प्रकार एवं उदाहरण
	अपठित गद्यांश / काव्यांश	• अभ्यास पत्रक के माध्यम से
जुलाई	पुनरावलोकन	
	बालगोबिन भगत–रामवृक्ष बेनीपुरी	• व्याख्या, सरलीकरण, वस्तुनिष्ठ प्रश्न, प्रश्नोत्तर
	राम–लक्ष्मण – परशुराम संवाद– तुलसीदास	• भक्तिकाल – तुलसीदास – रामचरितमानस दशावतार, व्याख्या, वस्तुनिष्ठ प्रश्न, प्रश्नोत्तर
	लखनवी अंदाज – यशपाल	• पठन–पाठन, सरलीकरण, वस्तुनिष्ठ प्रश्न, प्रश्नोत्तर
अगस्त	उत्साह, अट नहीं रही है – सूर्यकांत त्रिपाठी	• व्याख्या, काठिन्य निवारण, काव्य सौंदर्य वस्तुनिष्ठ प्रश्न, प्रश्नोत्तर
	एक कहानी यह भी – मन्नू भंडारी	• व्याख्या, सरलीकरण, वस्तुनिष्ठ प्रश्न, प्रश्नोत्तर
	साना–साना हाथ जोड़ि.... – मधु कांकरिया	• पूर्वोत्तर राज्य – सिक्किम, आदर्श – अनुकरण वाचन एवं प्रश्नोत्तर
	आत्मकथ्य – जयशंकर प्रसाद	• पाठ परिचय, व्याख्या, वस्तुनिष्ठ प्रश्न, प्रश्नोत्तर
	वाच्य	• परिभाषा, प्रकार, उदाहरण, वस्तुनिष्ठ प्रश्न
	स्ववृत लेखन	• अभ्यास पत्रक के माध्यम से

माह	अवधारणा	कौशल श्रवण – कथन – पठन – लेखन – कौशल
सितम्बर	यह दंतुरित मुसकान, फसल – नागार्जुन	• प्रगतिवाद एवं नागार्जुन व्याख्या, वस्तुनिष्ठ प्रश्न, प्रश्नोत्तर
	नौबत खाने में इबादत – यतींद मिश्र	• भारतीय वाद्य एवं शहनाई, उस्ताद बिस्मिल्लाह खां, व्याख्या, वस्तुनिष्ठ प्रश्न एवं प्रश्नोत्तर।
	ई–मेल लेखन	• अभ्यास पत्रक के माध्यम से
अक्टूबर	संगतकार – मंगलेश डबराल	• कई कविता का स्वरूप, व्याख्या, सरलीकरण, वस्तुनिष्ठ प्रश्न, प्रश्नोत्तर
	मैं क्यों लिखता हूँ – अज्ञेय	• आदर्श – अनुकरण वाचन, सरलीकरण एवं प्रश्नोत्तर
	पद – परिचय रचनात्मक लेखन	• अभ्यास पत्र के माध्यम से
नवंबर	संस्कृति – भदंत आनंद कौसल्यायन	• संस्कृति का अर्थ, स्वरूप, पठन–पाठन, काठिन्य निवारण, वस्तुनिष्ठ प्रश्न एवं प्रश्नोत्तर
	व्याकरण	• अभ्यास पत्रक के माध्यम से
	विज्ञापन लेखन	• अभ्यास पत्रक के माध्यम से
	संदेश लेखन	• अभ्यास पत्रक के माध्यम से
दिसंबर	पुनरावलोकन	• अभ्यास पत्रक के माध्यम से
जनवरी	पुनरावलोकन	• अभ्यास पत्रक के माध्यम से
फरवरी	पुनरावलोकन	• अभ्यास पत्रक के माध्यम से

MATHEMATICS

GENERAL OBJECTIVE

- *Consolidate the Mathematical knowledge and skills acquired at the upper primary stage:*
- *Acquire knowledge and understanding, particularly by way of motivation and visualization, of basic concepts, terms, principles and symbols and underlying process and skills; develop mastery of basic algebraic skills:*
- *Feel the flow of reason while proving a result or solving a problem;*
- *To develop awareness of the need of national integration protection of environment, observance of small family norms, removal of social barriers, elimination of gender biases;*
- *To develop interest in mathematics as a problem-solving tool in various fields for its beautiful structures and patterns, etc.*
- *To develop reverence and respect towards great Mathematicians for their contributions to the field of Mathematics;*
- *To develop an interest in students to study mathematics as a discipline.*

SPECIFIC OBJECTIVE

- *Develop drawing skills;*
- *To develop positive ability to think, analyze and articulate logically;*
- *To develop necessary skills to work with modern technological devices such as calculators, computers, etc.*
- *To develop interest in the subject by participating in related competitions;*
- *To acquaint students with different aspects of mathematics used in daily life;*

Month	Concept	Sub-Concept
March	Bridge Course	• Prime Factorisation • Division of Polynomials • Multiplication of Algebraic Expression
April	Real Numbers	• Fundamental Theorem of Arithmetic • HCF & LCM • To Prove Ir-rational Number
	Polynomials	• Standard Form, Zeroes of polynomials • Relation between, Zeroes and Coefficient • Relation Between Roots ($\alpha^2+\beta^2$, $\alpha^3+\beta^3$…….)
	Linear Equations in Two Variables	• Graphical Method • Elimination by Equating Coefficient • Elimination by Substitution • Condition of Solvability • Applications
June	Quadratic Equations	• Standard Form • Solution by Factorization • Solution by Formula method • Nature of Roots • Problem Based Nature of Roots to find unknown constants • Applications
	Similar Triangles	• Basic Proportionality Theorem & Converse
July	Similar Triangles (contd..)	• Similarity Theorem (SSS, SAS, ASA, AAA) • Applications
	Revision	•
		Unit Test-
August	Arithmetic Progression	• Sequences, General Term • Arithmetic Progression • Problem Based on General Term • Sum to n-Terms of an A.P. • Applications
	Co-ordinate Geometry	• Distance Between Two Points, • Section Formula (Internal & External Division)

Month	*Concept*	*Sub-Concept*
September	*Introduction to Trigonometry*	• *Trigonometric Ratios* • *Standard Angle Table for Trigonometric Ratios*
	Revision	
	First Term Examination	
October	*Heights & Distances*	• *Angle of Elevation* • *Angle of Depression,* • *Single Triangle Problem* • *Double Triangle Problem* • *HOTs*
	Tangent to the Circles	• *Tangent at a Point,* • *Tangent from an External Point* • *Applications*
	Areas Related to a Circles	• *Length of Arc* • *Circumference of Circle* • *Area of Circle, Area of Sector* • *Area of minor and major Segment* • *Area of Shaded Region*
November	*Surface Area and Volumes*	• *Surface Area of Combination of Solids* • *Volume of Combination of Solids*
	Statistics	• *Mean* • *Median* • *Mode* • *Applications*
	Probability	• *Definition (Random Variable, Event, Sample Space) Empirical Formula to Calculate Probability of any Event,* • *Applications*
December	*Revision*	
	Revision ***First Pre-Board Examination***	
January	***Revision*** ***Second Pre-Board Examination***	

List of Suggestive Tools For Maths

- *Written Test*
- *Lab Activity*
- *Home Assignment*
- *MCQ*
- *Oral*
- *PPT*
- *Project Work etc.*

SOCIAL SCIENCE

Rationale

Social Science is a compulsory subject upto secondary stage of school education. It is an integral component of general education because it helps the learners in understanding the environment in its totality and developing a broader perspective and an empirical, reasonable and humane outlook. This is of crucial importance because it helps them grow into well- informed and responsible citizens with necessary attributes and skills for being able to participate and contribute effectively in the process of development and nation building.

Objectives of learning of Social Science

1. ***General objectives of learning Social Science***
   - *To develop an understanding of contemporary India with its historical perspective, of the basic framework of the goals and policies of national development in independent India, and of the process of change with appropriate connections to world development.*
   - *To deepen knowledge about the understanding of India's freedom struggle and of the values and ideals that it represented, and to develop an appreciation of the contributions made by people of all sections and regions of the country.*
   - *To help learners understand and cherish the values enshrined in the Indian Constitution and to prepare them for their roles and responsibilities as effective citizens of a democratic society.*
   - *To deepen the knowledge and understanding of India's environment in its totality, their interactive processes and effects on the future quality of people's lives.*
   - *To facilitate the learners to understand and appreciate the diversity in the land and people of the country with its underlying unity.*
   - *To develop an appreciation of the richness and variety of India's heritage-both natural and cultural and the need for its preservation.*
   - *To develop qualities clustered around the personal, social, moral, national and spiritual values that make a person humane and socially effective.*

2. ***Specific objectives of learning Social Science***
   - *To develop an understanding of the processes of change and development spatio temporal , through which human societies have evolved.*
   - *To make learners realize that the process of change is perpetual and any even or phenomenon or issue cannot be viewed in isolation but in a wider context of time and space.*
   - *To promote an understanding of the issues and challenges of contemporary India- environmental, economic and social, as part of the development process*
   - *To help pupils acquire knowledge, skills and understanding to face the challenges of contemporary society as individual's and groups and learn the art of living a confident and stress-free life as well as participating effectively in the community.*
   - *To develop scientific temper by promoting the spirit of enquiry and following a rational and objective approach in analyzing and evaluating data and information as well as views and interpretations*
   - *To develop academic and social skills such as critical thinking, communicating effectively both in visual and verbal forms-cooperating with others, taking initiatives and providing leadership in solving others problems.*

Month	Concept	Sub-Concept
April	Geography– (Resource & Development)	• Definition of Resource • Classification • Soil, Soil Erosion
	Democratic Politics (Power Sharing)	• Case Study– Belgium &SriLanka • Forms of Power Sharing
	Economics– (Development)	• Concept of Development • National Development • Sustainablity of Development
June	**Continued…..** Geography– (Resource & Development)	• Definition of Resource • Classification • Soil, Soil Erosion
	Democratic Politics (Power Sharing)	• Case Study– Belgium &SriLanka • Forms of Power Sharing
	Economics– (Development)	• Concept of Development • National Development • Sustainablity of Development
July	History– (The Rise of Nationalism in Europe)	• The French Revolution and the idea of the Nation • A New Conservatism after 1815 • The Age of Revolution 1830–1848 • The Making of Germany and Italy • Strange case of Britain • Nationalism and Imperialism
	Democratic Politics – (Federalism)	• Federalism, key features • Routes of Federation • What makes India a federal country? • How is federalism practised in India? • Decentralisation
	Economics– (Sectors of Indian Economy)	• Sectors of Economic Activities • Comparing three Sectors • Organised and Unorganised Sectors • Public and Private Sectors
	Geography (Forest and Wild Life Resources)	• Conservation of forest and wildlife in India • Community and Conservation

Month	Concept	Sub-Concept
August	History – (Nationalism in India)	• The First World War, Khilafat and Non-Cooperation. • Why Non-Cooperation? • Different Strands within the movement • Towards Civil Disobedience • The Sense of Collective Belonging
	Economics– (Money and Credit)	• Money as a Medium of Exchange • Loan Activities of Banks. • Formal and Informal Sectors of Credit • Self Help Groups
	Democratic Politics– (Gender, Religion and Caste)	• Gender and Politics • Religion, Communalism and Politics • Caste in Politics • Politics in Caste
September .	Democratic Politics– (Political Parties)	• Need of Political Parties • How many Parties should we have? • National Political Parties and State Parties • Challenges to Political Parties
	Geography (Water resources)	• Water Scarcity and the need for water • Conservation and Management • Multi-Purpose River Project and Integrated Water Resources Management • Rainwater Harvesting and Jal Jeevan Mission
	Geography (Agriculture)	• Types of Cultivation • Cropping Patterns • Food Crops and Non-Food Crops
October	Geography– (Minerals and Energy Resources)	• Definition of Minerals and Uses • Mode of Occurrence of Minerals • Classification of Minerals • Energy Resources– Conventional and Non-Conventional • Conservation of Energy Resources
	History- (The Making of a Global World)	• The Pre-moden world • Conquest, Disease and Trade
	Economics (Globalization and the IndianEconomy)	• What is Globalization? • Factors that have enabled Globalisation • Impact of Globalisation
	Democratic Politics– (Outcomes of Democracy)	• How do we assess democracy's Outcomes? • Accountable, Responsive and Legitimate Government • Economic Growth and Development • Accomodation of Social Diversity

Month	Concept	Sub-Concept
November	History– (Print Culture and the Modern World)	• The First Printed Books • Print Comes to Europe • Print Revolution and Its Impact • India and the World of Print • New forms of Publication
	Geography– (Manufacturing Industries)	• Importance of Manufacturing industries • Classification of Industries • Industrial Pollution and Environmental Degradation • NTPC
December	Revision	
January	Revision	

LIST OF SUGGESTIVE TOOLS

- Project work
- Map skills
- Written Assignements

SCIENCE

OVERVIEW OF SCIENCE

The subject of Science plays an important role in developing well-defined abilities in cognitive, affective and psychomotor domains in children. It augments the spirit of enquiry, creativity, objectivity and aesthetic sensibility.

Whereas the upper primary stage demands that a number of opportunities should be provided to the students to engage them with the processes of Science like observing, recording observation, drawing tabulation, plotting graphs etc., the secondary stage expects abstraction and quantitative reasoning occupy a more central place in the teaching and learning of Science.

The present syllabus has been designed around five broad themes viz. Materials, The World of the Living, How things work, Natural phenomena and natural resources.

Special care has been taken to avoid temptation of adding too many concepts than can be comfortably learnt in the given time frame. No attempt has been made to be comprehensive.

The student should be exposed to experience as well as modes of reasoning that are typical of the subject.

GENERAL OBJECTIVES

- *Consolidate the science knowledge and skill acquired at the upper primary stage.*
- *Acquire knowledge and understanding particularly by way of motivation and visualization of basic laws, concepts, terms, principles and symbols and underlying process and skills.*
- *Develop mastery of basic scientific skills.*
- *Feel the flow of reason while proving a result or solving a numerical.*
- *To develop possible ability to think, analyze and articulate logically.*
- *To develop necessary skill to work, with modern technological devices and instruments.*
- *To develop interest in science as a problem solving tool in various fields such as modern technology, medical and agriculture.*
- *Mental and motor abilities appropriate to the acquisition and use of scientific understanding*
- *An appreciation of the product and influence of science and technology, balanced by a concern for their wise application.*
- *An understanding of the nature of limitation of scientific activity.*
- *An ability to apply scientific understanding to appropriate problem (including those of everyday life) and to approach those problems in rational ways.*

SPECIFIC OBJECTIVES

- *To enable the students to define electric current, potential, potential difference, resistance and resistivity and their SI units.*
- *To enable the students to apply the concept of current, resistance and resistivity to solve related numericals.*
- *To enable the students to differentiate between conductors, insulators and resistors.*
- *To enable the students to analyse the various electric circuit and apply the concepts of series & parallel combination to solve related numericals.*
- *To enable the students to analyse the household electric circuits and apply the concept of heating effect of electric current to daily life .*

SPECIFIC OBJECTIVES

- *To enable the students to draw magnetic field lines for bar magnet, straight conductor, circular coil and solenoid.*
- *To enable the students to explain properties of field lines & justify why field lines don't cross each other .*
- *To enable the students to compare the bar magnets and electromagnets and to make students well acquainted students with application of electromagnet.*
- *To enable the students to explain the force on a current carrying conductor & moving charge through labelled diagram, laws of electromagnetic induction.*
- *To enable the students to explain working of motor and generators through labelled diagrams.*
- *To enable the students to compare the different types of renewable & non-renewable resources.*
- *To enable the students to compare reflection & refraction of light.*
- *To enable the students to draw diagrams to show image formation by different types of mirror & lenses.*
- *To enable the students to apply the concept of reflection & refraction of light in daily life.*
- *To enable the students to explain human eye and various defects as with labelled diagrams and solve related numericals.*
- *To enable the students to apply the concept of dispersion and scattering of light to daily life situations.*
- *To enable the students to differentiate between different types of chemical reactions and identify them.*
- *To enable the students to define acids, bases, salts, metals and non-metals and give examples.*

SPECIFIC OBJECTIVES

- *To enable the students to apply the knowledge of acids, bases, salts, pH & corrosion in everyday life.*
- *To enable the students to explain bonding in carbon compounds with examples.*
- *To enable the students to differentiate between organic compounds, saturated & unsaturated carbon compounds.*
- *To enable the students to explain nomelature of organic compounds and chemical properties of carbon compounds.*
- *To enable the students to compare combustion, oxidation, addition & substitution reactions.*
- *To enable the students to explain the physical and chemical properties of ethanol & ethanoic acid.*
- *To enable the students to apply the knowledge of soaps & detergents to explain their cleansing action.*
- *To enable the students to explain the various attempts of classification of elements .*
- *To enable the students to apply the knowledge of periodic classification of elements to perdict different properties of elements.*
- *To enable the students to explain different modes of nutrition and photosynthesis.*
- *To enable the students to explain the digestive system in human beings with well-labelled diagram.*
- *To enable the students to compare the respiration & transportation in plants & human beings.*
- *To enable the students to explain the reflex action in human beings.*

SPECIFIC OBJECTIVES (BIOLOGY)

- *To enable the students to understand that how the life processes include nutrition,respiration,transportation and excretion help a body survive with the changes in the environment*
- *To enable the students to understand the concept of control and co-ordination in plants & various animal hormones*
- *To enable the students to differentiate between sexual & asexual reproduction.*
- *To enable the students to explain reproduction in plants & human beings through labelled diagrams.*
- *To enable the students to understand and apply the concept of variation, mendel's law & crosses.*
- *To enable the students to apply the concept of crosses for sex determination in human beings.*
- *To enable the students tou nderstand and explain various food chains ,food webs, biomagnification & ozone depletion.*

PHYSICS

Month	*Concept*	*Sub-Concept*
April	*Reflection of light*	• *Reflection of light by curved surfaces* • *Images formed by spherical mirrors* • *Centre of curvature* • *Principal focus* • *Focal length* • *Mirror formula(derivation not required)* • *Magnification* • *Application of mirrors*
June	*Refraction of light*	• *Refraction of Light* • *Laws of refraction* • *Refraction through Rectangular Glass Slab* • *Bendiing of Rod when immersed in a Liquid* • *Refractive index*
July	*Refraction of light (Cont….)*	• *Refraction of light by Spherical lens* • *Image formed by Spherical Lenses* • *Lens Formula (Derivation not required)* • *Magnification* • *Application of lenses* • *Power of a lens*
	Practicals	• ***Experiment No. 1*** *: To find the focal length of (a) concave mirror (b) convex lens by obtaining the image of a distant object.*
August	*Human eye and colourful world*	• *Functioning of a lens in human eye* • *defects of vision & their corrections* • *refraction of light through prism* • *dispersion of light* • *Scattering of light, application in daily life. (Excluding colour of sun at sunrise & sunset)*
	Practicals	• ***Experiment No. 2:*** *Tacing the path of ray of light passing through a rectangular glass slab for different angles of incidence.Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.*
September	*Electricity*	• *Electric current* • *Pottential difference and electric current* • *Ohm'slaw* • *Resistance* • *Resistivity* • *Factors on which the resistance of a conductor depends*
	Practicals	• ***Experiment No. 3****: Tracing the parth of the rays of light through a glass prism.*

Month	*Concept*	*Sub-Concept*
October	*Electricity (Contd…)*	• *Series combination of resistors , parallel combination of resistors and its applications in daily life* • *heating effect of electric current & its applications in daily life* • *Electric power* • *interrelation of P,V, I & and R.*
	Practicals	***Experiment No. 4*** • *Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance. Also plotting a graph between V and I.* ***Experiment No. 5*** • *Determination of the equivalent resistance of two resistors when connectred in series and parallel.*
	Magnetic effects of electric current	• *Magnetic field* • *Field lines* • *Field due to current carrying straight conductor* • *Field due to current carrying coil or solenoid*
November	*Magnetic effects of electic current*	• *Force on current carrying conductor,* • *Fleming's left hand rule* • *Direct current* • *Alternating Current and frequency of alternating current* • *Adventanges of AC over DC* • *Domestic circuits*
December	*Revision*	
January	*Revision*	

BIOLOGY

Month	Chapter	Concepts
April	Life Processes: (Nutrition)	• Concept of Life Processes, Introduction to Nutrition and Nutrition in Unicellular Organisms (Amoeba) • Nutrition in Plants • Digestive system Of Human Being
June	Life Processes continued….: (Respiration)	• Respiration in Plants and Unicellular Organisms • Respiration In Animals
	Practical	• Preparation of temporary mount of stomata peel of leaf
July	Life Processes continued……: (Transportation)	• Transportation in Plants
	Practical	• CO_2 is given out during respiration
August	Life Processes continued……: (Excretion)	• Transportation in Animals • Excretion in Plants and Animals
	Control and Coordination	• Introduction and Control and coordination in animals • Nervous System, Reflex Action
September	Control and Coordination Continued….	• Human Brain and Coordination in Plants and Animals • Involuntary and Involuntary action • Chemical coordination,Animal Hormones
October	How do Organisms Reproduce?	• Introduction to Reproduction, DNA copying and Variations • Asexual Reproduction • Sexual Reproduction in Plants and Human Beings • STDs and Methods of Contraception
	Practical	• To study (a) Binary Fission in Amoeba and • (b) Budding in Yeast with the help of permanent slides
November	Heredity	• Heredity, Mendelian Genetics – Laws for inheritance of traits • Sex Determination
	Our Environment	• Ecosystem, Environmental problems • Ozone layer depletion • Waste production and their solutions • Biodegradable and non-biodegradable substances
	Practical	• Identification of different parts of an embryo of a dicot seed
December	Revision	
January	Revision	

CHEMISTRY

Month	Concept	Sub-Concept
April	Chemical reactions and equations	• Chemical equation, Balanced chemical equation • implications of a balanced chemical equation,
June	Chemical reactions and equations (Contd…)	• types of chemical reactions: ○ combination ○ decomposition ○ displacement ○ double displacement, precipitation ○ endothermic exothermic reactions, precipitation reaction ○ oxidation and reduction.
July	Acids,Bases and Salts	• Their definitions in terms of furnishing of H+ and OH– ions, • General properties, examples and uses, • neutralization, concept of pH scale (Definition relating to logarithm not required),
	Practical	Performing and observing the following reactions and classifying them into: Combination reaction Decomposition reaction Displacement reaction Double displacement reaction • Action of water on quicklime • Action of heat on ferrous sulphate crystals • Iron nails kept in copper sulphate solution • Reaction between sodium sulphate and barium chloride solutions Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions: i) $ZnSO_4$(aq)ii) $FeSO_4$(aq)iii) $CuSO_4$(aq)iv) $Al_2(SO_4)_3$(aq) Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.
August	Acids,Bases and Salts	• importance of pH in everyday life; ○ preparation and uses of ○ Sodium Hydroxide, Bleaching powder ○ Baking soda ○ Washing soda and Plaster of Paris.
	Metals and Non Metals	• Properties of metals and non-metals; • Reactivity series • Formation and properties of ionic compounds
	Practical	Finding the pH of the following samples by using pH paper/universal indicator: • Dilute Hydrochloric Acid • Dilute NaOH solution • Dilute Ethanoic Acid solution • Lemon juice • Water • Dilute Hydrogen Carbonate solution

Month	Concept	Sub-Concept
August	Practical	Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with: ○ Litmus solution (Blue/Red) ○ Zinc metal ○ Solid sodium carbonate
September	Metals and Non Metals	• Basic metallurgical processes • Corrosion and its prevention.
October	Unit Carbon and its compound	• Covalent bonding in carbon compounds. • Versatile nature of carbon. Homologous series. Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes)
	Practical	Study of the following properties of acetic acid (ethanoic acid): ○ Odour ○ solubility in water ○ effect on litmus ○ reaction with Sodium Hydrogen Carbonate • Study of the comparative cleaning capacity of a sample of soap in soft and hard water.
November	Unit Carbon and its compound	• Difference between saturated hydrocarbons and unsaturated hydrocarbons. • Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). • Ethanol and Ethanoic acid (only properties and uses) • Soaps and detergents.
December	Revision	
January	Revision	

FRENCH

OVERVIEW

In class X students can choose Hindi or French as second language which they will study up to class X. In second language, there is an integration of all the four skills i.e. Listening, Speaking, Reading, and Writing. In addition to this, appropriate and correct expression of language is reinforced by understanding grammar.

OBJECTIVES

By the end of class X, students will be able to:-

- *Utilize clear language and vocabulary that is easy to comprehend.*
- *Conjugate regular and irregular verbs.*
- *Use appropriate vocabulary to write a paragraph.*
- *Use vocabulary given in the text and analyze impact of some phrases with proper intonations.*
- *Use different words and expressions to convey the desired sequence of events.*
- *Use various kinds of sentences (Interrogative, exclamatory and imperative) in conversation.*
- *Use concepts like tenses in situational conversations.*
- *Write a demonstrative text that conveys the core idea of the subject by selecting, organizing and analysing the given content.*
- *Write on a simple subject with appropriate vocabulary, fine points and examples.*
- *Analyze how to use synonyms or better sounding words to give an impact that consists of all the essential points of the chapter or the text.*
- *Use different words and expressions to convey the desired sequence of events.*
- *Develop skills to enhance the language by daily exercises of reading, writing, speaking and listening by using the material provided by the school as well as internet.*

Month	*Concepts*	*Sub-Concept*
April	• *Retrouvons nos amis (Leçon-1)* • *Se présenter* • *Les expressions* • *Les proverbes* • *Le Tour de France* • *Après le bac (Leçon-2)* • *Le Futur antérieur* • *La forme nominale* • *Le CROUS* • *Le système d'éducation en France/Inde*	*Il peut :* • *Décrire un lieu* • *Demander un avis* • *Exprimer ses préférences* • *Écrire des lettres* • *Exprimer la volonté* • *Donner/ demander un renseignement*
June	• *Chercher du travail (Leçon-3)* • *Les pronoms relatifs (simple et composés)* • *L'ANPE* • *Le CV* • *Le plaisir de lire (Leçon-4)* • *Le plus-que-parfait* • *Les extraits des textes* • *La bibliothèque*	*Il peut :* • *Décrire la carrière professionnelle* • *Conseiller quelqu'un* • *S'inscrire a la bibliothèque* • *Inviter quelqu'un* • *Raconter un événement/ une fable*
July	• *Les médias (Leçon-5)* • *La forme nominale (exception)* • *Les pronoms personnels (y, en)* • *Les informations sur : la télévision, la radio, la presse, la publicité.*	*Il peut :* • *S'informer* • *Raconter des faits divers* • *Décrire une émission télévisée* • *Les informations de nouvelles*
August	• *Chacun ses goûts (Leçon-6)* • *Les pronoms démonstratifs simples et composes* • *Le pronom « on »* • *L'emphase : c'est …qui, c'est…que* • *Les informations sur le théâtre, le cinéma, le musée, le résume d'un film.*	*Il peut :* • *Exprimer ses goûts* • *Inviter quelqu'un* • *Raconter une histoire* • *Décrire une visite au musée/au cinéma* • *Les goûts / les préférences*
September	• *En pleine forme (Leçon-7)* • *Les pronoms possessifs* • *La santé (Les indiens/Les français)* • *La sécurité sociale*	*Il peut* • *Parler de la bonne forme physique* • *Discuter de bonnes habitudes de vie* • *S'informer de la santé de quelqu'un* • *Exprimer son état de santé*

Month	*Concepts*	*Sub-Concept*
October	• *L'environnement (Leçon-8)* • *Le subjonctif* • *La pollution* • *Le recyclage* • *Sauver la planète* • *Protéger l'environnement* • *Métro,boulot, dodo (Leçon-9)* • *Les transports publics* • *Le conditionnel passé*	*Il peut :* • *Parler de l'environnement* • *Faire des projets pour sauver la planète* • *Exprimer la nécessite / la volonté / les sentiments* • *Parler de la vie urbaine d'aujourd'hui* • *Les titres de transport (métro / bus / train)*
November	• *Si+plus-que-parfait + conditionnel passé* • *Ne…pas + infinitif du verbe* • *La vie urbaine précipitée* • *Les bâteaux mouches* • *Vive la République (Leçon -10)* • *Le système politique* • *Le discours rapporté*	*Il peut :* • *Décrire le réchauffement de la terre* • *Parler des moyens de transport publics* • *Exprimer un désir / un regret* • *Interdire* • *Discuter du système politique* • *Téléphoner a quelqu'un* • *Rapporter un discours*
December	• *C'est bon le progrès (Leçon-11)* • *Le Participe présent* • *Le gérondif* • *Le mél (le courrier électronique)* • *Internet (le site web)* • *Les médias sociaux*	*Il peut :* • *Parler de la technologie de l'information* • *Solliciter un service* • *Echanger des informations* • *Ecrire des méls* • *Exprimer les sentiments*
January	• *Vers un monde interculturel (Leçon-12)* • *La récapitulation des verbes et des parties de grammaire déjà abordes.* • *Le monde interculturel* *La mondialisation*	*Il peut :* • *Parler de la diversité culturelle* • *Découvrir les autres cultures* • *Décrire les aspects interculturels* •

SUGGESTIVE TOOLS FOR FRENCH

Listening Skills	*Speaking skills*	*Reading skills*	*Writing skills*	*Activites*
• *French songs* • *Memory Games* • *Interactive activities from the CD* • *Listen and fill in the blanks* • *French Pronunciation* • *Audio Visuals Games* • *Short movies*	• *Role Play* • *Picture description* • *Skit* • *Group Discussion* • *Story Telling* • *Intercultural differences* • *Education system* • *Opinions* • *Expressing their preferences*	• *Picture Reading* • *Unseen Passage* • *Paragraph Reading* • *Movie reviews* • *Invitations*	• *Letter Writing* • *Post Card Writing* • *Paragraph Writing* • *Recipe Writing* • *Designing a Poster* • *Invitation* • *Message Writing* • *Describing a place* • *Describing a tv programme .*	• *PPT* • *Quiz* • *Group Discussion* • *Assembly presentation*

INFORMATION TECHNOLOGY

Objective: *The course intends to develop skills related to Office tools which help students to create a customized document. Database concept is helping students to make applications for real life world problems and providing knowledge of DBMS (Database Management System). The curriculum is designed to develop appropriate technical knowledge as well as the professional skill of the students.*

Learning Objectives:

- *Ability to develop Customized Document.*
- *Ability to create, store and manipulate databases using calculation tools.*
- *Ability to design documents using office tools.*

Month	Concept	Sub-Concept
April	Digital Documentation (Advanced)	• Apply Styles in the document • Insert and use images in document
June	Digital Documentation (Advanced) And Employability Skills	• Create and use of template • Create table of contents • Communication Skills-II
July	Electronic Spreadsheet (Advanced)	• Analyse data using scenarios and goal seek. • Link spreadsheets data • Share and review a spreadsheet
August	Electronic Spreadsheet (Advanced) And Database Management System	• Use Macros in spreadsheet • Appreciate the concept of Database Management System • Create and edit tables using wizard
September	Database Management System	• Perform operations on table • Retrieve data using query • Create Forms and Reports using wizard
October	Maintain Health, Safety and Secure Working Environment And Employability Skills	• Maintain workplace safety • Prevent Accidents and Emergencies • Protect Health and Safety at work • Self-Management Skills-II • Information and Communication Technology Skills-II
November	Employability Skills	• Entrepreneurial Skills-II • Green Skills-II
December	Revision	
January	Revision	

PAINTING

Objective:

The focus of the painting curriculum should be to provide students with an opportunity to explore natural and man made objects, situations and subjects to learn about the elements and principles of painting while enjoying their creative expression through different mediums and techniques. The course consists of (i) Painting theory and (ii) Painting practical. Theory and Practice are co-related and complement each other by application of medium and technique. Theory can make students understand the medium they are practicing with all its beauty and meaning. Theory provides knowledge and enhances the value of the practical.

Learning outcomes -

Students after studying 'Painting' as additional subject will be able to:

- *Enjoy paintings as a medium of expressions and appreciate the beauty in lines, forms and colours*
- *Know the fundamentals of Painting (Elements and Principles) and apply them in their creations.*
- *Use painting tools and materials appropriately.*
- *Apply pencil colours, oil pastels, poster colours, water colours etc. as a painting medium and differentiate between 'opaque' and 'transparent' colours as a technique.*
- *Refine memory and observation power through study / still life and painting composition*

Month	Concept	Sub-Concept
April	Composition Drawing	• Human body proportion • Face study
	Unit-1 (i) Fundamental of Art	• Elements and Principle of composition
June	Composition Painting	• Figurative Composition painting (Topic- Daily life)
	Unit-1 (ii) Methods & Materials of painting	• Painting Techniques and stylization
July	Composition Painting	• Figurative Composition painting (Topic- Festival)
	Unit-1 (ii) Methods & Materials of painting	• Tools • Painting materials
August	Composition Painting	• 2 Object + Nature + Drapery (poster colour) • Composition topic mythology
	Unit-2 Story of Indian Art	• Painting- Bodhisattava Padmapani (Ajanta) • Sculpture- Ashokan Lion capital (Mauryan Period)
September	Indian Folk Art Painting	• Madhubani & Warli
	Unit-2 Story of Indian Art cont…	• Architecture- Kailashnatha Temple (Ellora, Maharashtra) • Indian Folk Art
October	Abstract Painting	• Abstract composition painting
November	Still Life Painting	Still Life composition (water colour)
December	Revision	
January	Revision	
February	Revision	

ARTIFICIAL INTELLIGENCE

Objective:

The objective of this curriculum - which combines both Inspire and Acquire modules is to develop a readiness for understanding and appreciating Artificial Intelligence and its application in our lives. This curriculum focuses on:

1. Helping learners understand the world of Artificial Intelligence and its applications through games, activities and multi-sensorial learning to become AI-Ready.
2. Introducing the learners to three domains of AI in an age-appropriate manner.
3. Allowing the learners to construct the meaning of AI through interactive participation and engaging hands-on activities.
4. Introducing the learners to the AI Project Cycle.
5. Introducing the learners to programming skills - Basic python coding language.
6. To equip students with the skills to develop AI solutions addressing societal challenges.

Learning Objectives:

1. *Identify and appreciate Artificial Intelligence and describe its applications in daily life.*
2. *Relate, apply and reflect on the Human-Machine Interactions to identify and interact with the three domains of AI: Data, Computer Vision and Natural Language Processing*
3. *Understand the impact of Artificial Intelligence on Sustainable Development Goals to develop responsible citizenship.*
4. *Gain awareness about AI bias and AI access and describe the potential ethical considerations of AI.*
5. *Develop effective communication and collaborative work skills.*
6. *Get familiar and motivated towards Artificial Intelligence and Identify the AI Project Cycle framework.*
7. *Learn problem scoping and ways to set goals for an AI project and understand the iterative nature of problem scoping in the AI project cycle.*
8. *Brainstorm on the ethical issues involved around the problem selected.*
9. *Foresee the kind of data required and the kind of analysis to be done, identify data requirements and find reliable sources to obtain relevant data.*
10. *Use various types of graphs to visualize acquired data.*
11. *Understand, create and implement the concept of Decision Trees.*
12. *Understand and visualize the computer's ability to identify alphabets and handwriting.*
13. *Understand and appreciate the concept of domains through gamification and learn basic programming skills through gamified platforms.*
14. *Acquire introductory Python programming skills in a very user-friendly format.*
15. *Empower students to create positive change through AI-driven social impact projects.*

Month	Concept	Sub-Concept
April	Revisiting AI Project Cycle & Ethical Frameworks for AI	• Revisiting AI Project Cycle • The three domains of AI and their applications.
June	Revisiting AI Project Cycle & Ethical Frameworks for AI(Contd…) And Employability Skills	• Frameworks, Ethical Framework and need of Ethical Frameworks for AI. • Types of Ethical Frameworks. • Bioethics and a case study in bioethics. And • Communication Skills-II
July	Advanced Concepts of Modeling in AI	• Differentiate between AI, ML, and DL • Common terminologies used with data • Types of AI Models: Rule Based Approach, Learning Based Approach • Categories of Machine learning based models: Supervised Learning ,Unsupervised Learning, Reinforcement Learning • Subcategories of Supervised Learning Model: Classification Model, Regression Model • Subcategories of Unsupervised Learning Model: Clustering, Association • Subcategories of Deep Learning: Artificial Neural networks (ANN), Convolutional Neural Network (CNN) • What is Neural Network? • How does AI make a Decision?
August	Evaluating Models	• What is evaluation? • Need of model evaluation • Train-test split • Accuracy • Error • Find the accuracy of the AI model • What is Classification? • Classification metrics • Activity: ➢ Build the confusion matrix from scratch ➢ Calculate the accuracy of the classifier model ➢ Decide the appropriate metric to evaluate the AI model • Bias, Transparency, Accuracy

September	*Computer Vision* *And* *Employability Skills*	• *Introduction to Computer Vision* • *Applications of CV* • *Understanding CV Concepts* • *Computer Vision Tasks* • *Basics of Images-Pixel, Resolution, Pixel value* • *Grayscale and RGB images* ***(To be assessed through Practicals)*** • *Understanding Convolution operator* • *Introduction to CNN* • *Understanding CNN :Kernel, Layers of CNN* *And* • *Self-Management Skills-II* • *Information and Communication Technology Skills-II*
October	*Natural Language Processing* *And* *Employability Skills*	• *Features of natural languages.* • *Introduction to Natural Language Processing* • *Various real-life applications of NLP* • *Explore the various stages of NLP that involve in understanding and processing human language.* • *Script Bot V/s Smart Bot* • *Text Processing* • *Text Normalisation* • *Bag of Words* ***(To be assessed through Practicals)*** • *Examples of Code and No-code NLP Tools* • *Applications of NLP- Introduction to Sentiment Analysis* *And* • *Entrepreneurial Skills-II* • *Green Skills-II*
November	*Statistical Data (To be assessed through Practicals)* *And* *ADVANCE PYTHON (To be assessed through Practicals)*	• *No code AI tool* ➢ *Introduction to Data Science & its applications* ➢ *Meaning of No-Code AI* ➢ *No-Code and Low-Code.* ➢ *Some no-code tools* • *Important concepts in Statistics.* ➢ *Orange data mining* ➢ *AI project cycle in Orange data mining (Palmer penguins case study)* *And*

		• *Jupyter Notebook(Working with Jupyter Notebook, creating virtual environments, installing Python Packages.)* • *Introduction to Python(Writing basic Python programs using fundamental concepts such as variables, data types, operators, and control structures.)* • *Python Basics(Use Python built-in functions and libraries.)*
December	*Revision*	
January	*Revision*	

HINDUSTANI PERCUSSION MUSIC-10

Month	Concept	Sub-Concept
April	• Revision of Talas: Teentala, Jhaptala • Definitions: Tihai, Kayada, Palta	• Playing Theka in different speeds • Simple compositions in Teentala
June	• Structure and notation of compositions • Detailed study of Kayada and Tukra	• Practice of Kayada with Paltas in Jhaptala • Recitation with Dugun, Tigun
July	• Introduction to Paran and its structure	• Performance of Paran and Rela in Teentala
	First Unit Test	
August	• History of Tabla and Pakhawaj (brief overview)	• Practice of advanced Tukras and Relas
September	• Biographies: Pt. Samta Prasad, Pt. Kanthe Maharaj	• Recitation of Thekas in different Layas • Accompaniment practice
October	• Notation writing practice and revision	• Internal assessment preparation • Mock performance sessions
November	• Full syllabus revision • Sample papers and mock tests	• Full practical revision • Solo and accompaniment practice
December	Revision	
January	Revision	
February	Revision	

ELEMENTS OF BUSINESS

Rationale:

The study of the elements of business in Grade 10 serves as a foundational introduction to the world of economic activities. It aims to equip young learners with a basic understanding of how businesses operate their various forms, and the essential functions that drive them. This early exposure fosters financial literacy and an entrepreneurial mindset, enabling students to appreciate the economic environment around them.

By exploring concepts like different types of business activities, the steps involved in setting up a business, and fundamental areas such as finance, marketing, and human resources, students begin to develop critical thinking and decision-making skills. This knowledge is not only relevant for potential future careers in business but also provides a valuable framework for understanding broader economic and social issues. In essence, introducing these elements at this stage lays the groundwork for more advanced studies in commerce and economics, while also empowering students with practical life skills.

Objectives:

1. *Understanding Basic Business Concepts.*
2. *Identifying Human Activities: Economic and Non Economic*
3. *Exploring Different Forms of Business Organization.*
4. *To understand the concept of domestic and international trade and their role in the economy.*
5. *Appreciating Aids to Trade.*
6. *Developing Basic Entrepreneurial Awareness.*
7. *Building Foundational Knowledge for Future.*
8. *Connecting Business to Everyday Life.*

Month	*Concept*	*Sub- Concept*
April	*Unit I- Joint Stock Company*	• *Joint Stock Company* • *Private Company: meaning and features*
June	*unit I - continue*	• *Public company*
	Unit II - Sources of Business Finance	• *Owned and Borrowed Funds*
July	*Unit III- Communication in Business*	• *Communication in Business : Meaning and methods:*
August	*Unit III - Continue*	• *Methods: letter, e-mail, video conferencing, telephone*
	Unit IV - Sellings and Distribution	• *Selling and Distribution* • *(a) Concept of purchase and sale*
September	*Unit IV - continue* *Revision*	• *(b) Types - Cash, Credit, Hire Purchase System and Installment Payment System*
October	*Unit V - Large Scale Retail Trade*	• *Large Scale Retail Trade* • *Forms of large scale retail trade - Departmental Store and Multiple shops* • *Non-store retailing- Mail order business, tele-shopping, automated vending machines, selling* • *through internet*

November	*Unit VI - Selling.*	• *Selling*
		  ○ *Personal Selling - meaning and importance*
		  ○ *Sales promotion - meaning and techniques*
		• *(c) Advertising - meaning, importance and media of advertising*

December	*Revision*	
January	*Revision*	

NATIONAL CADET CORPS NCC

Rationales:

1. *To develop well-rounded, responsible, and patriotic citizens with a strong sense of civic duty and leadership potential.*
2. *To develop discipline, character, and a spirit of adventure in youth, while also motivating them to consider careers in the armed forces or other public service roles.*
3. *Offering students opportunities for outdoor activities and leadership development*
4. *To create a human resource of trained and motivated youth who can lead in various walks of life and serve the nation.*
5. *To develop overall personally and social skills such as problem solving skills , coping with stress, emotions, self awareness, self confidence values, ethics.*
6. *Encourages students to engage in social service activities and contribute to the betterment of their communities, fostering a sense of responsibility and compassion.*
7. *To give basic Knowledge of weapon. 22 rifle for boosting confidence.*
8. *To provide knowledge of renewed military generals Armed forces and study of famous battles.*
9. *To provide basic understanding of maps and conventional signs.*
10. *To inculcate sense of patriotism, unity and diversity religions, culture, traditions and customs of India.*

Month	*Concept*	*Sub-concept*
April	*Unit-1 The NCC*	• *Aims to acquaint cadets with the aims and objectives of NCC* • *Scope: Introduction, aims, organization and general information about NCC* • *Aims and Objectives of NCC* • *Organization and Training and NCC Song* • *Incentives of Joining NCC*
	Unit-9: Health and Hygiene	• *Aim: To instill respect and responsibility towards personal health and hygiene* • *Scope: Basic information of the human body, maintenance of health and hygiene, sanitation, disease and elementary knowledge of First Aid and Nursing* • *Structure and functioning of the human body* • *Infectious and contagious diseases and its prevention* • *Basics of first aid in common medical emergencies*

		• *Wounds and fractures* • *Introduction to yoga and exercise*
June	*Unit-2 National Integration and Awareness*	*Aim: To inculcate sense of patriotism, secular values and motivate cadets to contribute towards nation building through national unity and social cohesion.* *Scope: The concepts of National Interests, Objectives and integration, Unity in diversity and cultural heritage of India.* • *Freedom struggle and Nationalist Movement in India* • *Unity and Diversity* • *Famous Leaders of India* • *Contribution of youth to National Building*
	Unit 1 ***Armed Forces (Specialized subject)***	*Aim: To acquaint cadets with the Armed Forces* *Scope: Introductory and general information about the Armed Forces.* • *Basic organization of Armed Forces* • *Organization of the Army* • *Badges and Ranks* • *Honors and Awards* • *Modes of entry into Army*
July	*Unit-7 Personality Development and Leadership*	*Aim: To develop an all-round dynamic personality with adequate leadership traits to deal/ contribute effectively in all walks of life* *Scope: Basic subjects of leadership with emphasis on self-awareness, life/soft skills, time management and character building* • *Introduction to Personality development* • *Factors in flouncing /shaping personality: Physical, Social, Psychological and Philosophical* • *Critical and creative thinking* • *Communication skills: group discussions/ lecture* • *Effects of leadership with historical examples* • *Problem solving skills* • *Interview skills* • *Importance of group and teamwork* • *Effective use of time* • *Coping with stress/emotions*
July	*Unit-3* ***Map Reading (Specialized subject)***	*Aim: To teach cadets elementary map reading* *Scope: Basic understanding of map sheets and map reading instruments and development of capability to use them to carry out simple Map Reading* • *Introduction to types of Maps and conventional signs* • *Topographical forms and technical terms* • *Cardinal points and types of North* • *Types of bearing and use of service protractor*
August	*Unit – 4 Drill*	*Aim: To inculcate a sense of discipline, improve bearing, smartness, ant turnout and to develop the quality of immediate and implicit*

		obedience to cadets *Scope: All important basic aspects of drill including ceremonial drill, drill with arms and words of command Drill without Arms* • *General Words of Command* • *Attention, Stand at Ease and Stand Easy, turning and inclining at the halt* • *Saluting at the halt* • *Getting on parade, dismissing and falling out* • *Turning on the march wheeling* • *Individual word of command*
	Unit 10 – Environment awareness and Conservation	*Aim: To sensitize the cadets on natural resource conservation and protection of environment* *Scope: Basic understanding of environment in general and waste management in particular, energy conservation, pollution control and wildlife conservation in particular* • *Natural resources – conservation and management* • *Water conservation and rain water harvesting* • *Waste management* • *Pollution control water, air, noise, soil*
August	*Unit- 4* ***FieldCraftandBattleCraft*** ***(Specialized subject)***	*Aim: To teach cadets elementary field craft and battle craft* *Scope: Basic field craft and battle craft* • *Introduction* • *Judging distance* • *Description of ground* • *Observation of ground* • *Field signals* • *Use of ground and movement* • *Selection of formations (Section formation)*
September	*Unit-5WeaponTraining* ***(common)***	*Aim: To give elementary knowledge about rifles* *Scope: Basic knowledge about rifle and firing* • *Characteristics of a rifle /rifle ammunition and its fire power* • *The lying position and Holding* • *Aiming, range and figure target* • *Trigger control and firing a shot* • *Range precautions and safety precautions* • *Short range firing*
	Unit-5 : Communication (Specialized subject)	*Aim: To introduce cadets to the latest trends in the field of communications* *Scope: Types of communications and future trends*

		• *Means of communication*
October	*Unit – 6 Adventure Training* *Unit – 3 Civil Affairs*	*Aim: To inculcate a sense of adventure and develop confidence, courage and determination.* *Scope: To expose cadets to various adventure activities.* • *Trekking including selection of route and administrative planning* • *Rock Climbing* *Aim: To train Cadets to assist Civil administration in performance of selective duties during disasters.* *Scope: Basic information about civil defense organization and its duties, maintenance of essential services and providing assistance tociviladministrationinvarioustypesofemergenciesduringnationaldisasters.* • *Civil Defense organization and its duties/ NDMA* • *Role of NCC during Natural Hazards/Calamities* • *Fire Service and Fire Fighting*
November	*Unit – 8 Social Awareness Community Development*	*Aim: To teach cadets the values and skills involved in providing voluntary Social Service* *Scope: Understanding of social service and its needs, knowledge about the weaker sections of our society and their requirements, about NGOs and contribution of youth towards social welfare.* • *Literacy enhancement and poverty alleviation* • *Contribution of youth toward social welfare* • *Civic responsibilities* • *Drug abuse and trafficking* • *Causes and prevention of HIV/AIDS, Role of Youth* • *Corruption* • *Social evils viz. dowry/ female feticide/ child abuse and trafficking etc.* • *Traffic control organization and anti –drunken driving* • *Provisions of child Act*
	Unit – 2 ***Military History(Specialized subject)***	*Aim: To provide knowledge of renowned Military Generals, PVCs and Indo-Pak Wars* *Scope: Introduction to biographies, famous Indian battles and gallantry awards* • *Indian Army War heroes* • *Study of battles of Indo-Pak war 1965, 1971 and Kargil*

- *Project and Assignment work*

- *Map Skills*
- *Practical's – Weapon, Map reading Field Craft and Battle craft*
- *Visits- Social and community development, Adventure*