

# ENGLISH LANGUAGE AND LITERATURE

Code No. 184  
2023-24

## 1. Background

At the secondary stage of English language learning the textual materials and other resources should represent a wide range of learning experience. Literature has always played a significant role in learning language. However, it is felt that pupils should be apprised with 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.

## 2. Objectives:

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 in order to engage in independent reflection and inquiry
- make appropriate usage of 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, organise and edit their own work and work done by peers
- integrate listening and speaking skills in the curriculum.
- give a brief oral description of events / incidents of topical interest
- retell the contents of authentic audio texts (weather reports, public announcements,

simple advertisements, short interviews, etc.)

- participate in conversations, discussions, etc., on topics of mutual interest in non-classroom situations
- narrate a story which has been depicted pictorially or in any other non-verbal mode
- respond, in writing, to business letters, official communications email etc.
- 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 in the form of article, speech, or a debate
- write a summary of short lectures on familiar topics by making / taking notes
- write an assessment of different points of views expressed in a discussion / debate
- read poems effectively (with proper rhythm and intonation)
- transcode information from a graph / chart to a description / report and write a dialogue, short story or report
- Develop appreciation for Indian languages (multilingualism), translations and Indian Literature.

### **3. Language Items**

In addition to consolidating the grammatical items practised earlier, the courses at the secondary level seek 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
- cohesive devices
- punctuation (semicolon, colon, dash, hyphen, parenthesis or use of brackets and exclamation mark)

### **4. Methods and Techniques**

The methodology is based on a multi-skill, activity-based, learner-centered approach. Care is taken to fulfill the functional (communicative), literary (aesthetic) and cultural (sociological) needs of the learner. In this situation, the teacher is the facilitator of learning. She/he presents language items, create situations which motivates the child to use English for the purposes of communication and expression. Aural-oral teaching and testing is an integral feature of the teaching-learning process. The electronic and print media could be used extensively. A few suggested activities are:

- Role play
- Simulating real life situations
- Dramatising and miming
- Problem solving and decision making
- Interpreting information given in tabular form and schedule
- Using newspaper clippings as a resource for comprehending and analysing issues.
- Borrowing situations and registers from the world around the learners, from books and from other disciplines
- Using language games, riddles, puzzles and jokes
- Interpreting pictures / sketches / cartoons
- Debating and discussing
- Narrating and discussing stories, anecdotes, etc.
- Reciting poems
- Working in pairs and groups
- Using media inputs - computer, television, video cassettes, tapes, software packages

**ENGLISH LANGUAGE AND LITERATURE (Code No. 184)**  
**SYLLABUS CLASS – IX**  
**2023-24**

<b>Sections</b>		<b>Weightage</b>
A	Reading Skills (40 periods)*	20 Marks
B	Writing Skills and Grammar (40 periods)*	20 Marks
C	Language through Literature (50 periods)*	40 Marks

\*This is a suggestive number.

**Section A**

**Reading Skills**

**I. Reading Comprehension through Unseen Passage**

**20 Marks**

1. Discursive passage of 400-450 words. **(10 marks)**
2. Case-based factual passage (with visual input- statistical data/chart etc.) of 200-250 words. **(10 marks)**

**(Total length of two passages to be 600-700 words)**

Multiple Choice Questions / Objective Type Questions/Very Short Answer Questions will be asked to assess comprehension, interpretation, analysis, inference, evaluation and vocabulary.

**Section B**  
**Writing Skills and Grammar**

**II Grammar**

**10 Marks**

- Determiners
  - Tenses
  - Modals
  - Subject – verb concord
  - Reported speech
    - Commands and requests
    - Statements
    - Questions
3. The courses at the secondary level seek to cement high professional grasp of grammatical items and levels of accuracy. Accurate use of spelling, punctuation and grammar will be assessed through Gap Filling/ Editing/Transformation exercises. Ten out of twelve questions will be attempted.

**III Writing Skills**

**10 marks**

4. Writing a Descriptive Paragraph (word limit 100-120 words), describing a person / event / situation, based on visual or verbal cue/s. One out of two questions to be answered.  
**5 marks**
5. Writing a Story (on a given cue/title)/Diary Entry, in 100-120 words. One out of two questions is to be answered.  
**5 marks**

**Section C**  
**Language through Literature**

**40 Marks**

**IV. Reference to the Context**

**(5+5 = 10 Marks)**

6. One extract out of two, from Drama / Prose.
7. One extract out of two, from poetry.

Multiple Choice Questions / Objective Type Questions will be asked to assess interpretation, analysis, inference, evaluation, appreciation and vocabulary.

**V. Short & Long Answer Questions**

8. Four out of Five Short Answer Type Questions to be answered in 40-50 words from the book BEEHIVE to assess interpretation, analysis, inference and evaluation.  
**4x3=12 marks**
9. Two out of Three Short Answer Type Questions to be answered in 40-50 words from the

book MOMENTS to assess interpretation, analysis, inference and evaluation.

**3x2=6 marks**

**10.** One out of two Long Answer Type Questions from BEEHIVE to be answered in about 100-120 words to assess creativity, imagination and extrapolation beyond the text and across the text. This can also be a passage-based question taken from a situation/plot from the text.

**6 marks**

**11.** One out of two Long Answer Type Questions from MOMENTS, on theme or plot involving interpretation, extrapolation beyond the text and inference or character sketch to be answered in about 100-120 words.

**6 marks**

### **Prescribed Books: Published by NCERT, New Delhi**

#### **Beehive**

##### **Prose**

- a. The Fun They Had
- b. The Sound of Music
- c. The Little Girl
- d. A Truly Beautiful Mind
- e. The Snake and the Mirror
- f. My Childhood
- g. Reach For The Top
- h. Kathmandu
- i. If I were You

##### **Poems-**

1. The Road Not taken
2. Wind
3. Rain on The Roof
4. The Lake Isle of Innisfree
5. A Legend of The Northland
6. No Men Are Foreign
7. On killing a tree
8. A Slumber Did My Spirit Seal

##### **Moments**

1. The Lost Child
2. The adventures of Toto
3. Iswaran the Storyteller
4. In the kingdom of fools

5. The Happy Prince
6. The Last Leaf
7. A House is not a Home
8. The Beggar

### **3. WORDS AND EXPRESSIONS – I (WORKBOOK FOR CLASS IX) – Units 1 to 6 and Units 8, 10 & 11**

- **NOTE: Teachers are advised to:**

- (i) encourage classroom interaction among peers, students and teachers through activities such as role play, group work etc.
- (ii) reduce teacher-talk time and keep it to the minimum,
- (iii) take up questions for discussion to encourage pupils to participate and to marshal their ideas and express and defend their views.

Besides measuring learning outcome, texts serve the dual purpose of diagnosing mistakes and areas of non-learning. To make evaluation a true index of learners' knowledge, each language skill is to be assessed through a judicious mixture of different types of questions.

#### **INTERNAL ASSESSMENT**

##### **Listening and Speaking Competencies**

**30 Periods**

Assessment of Listening and Speaking Skills will be for 05 marks.

It is recommended that listening and speaking skills should be regularly practiced.

**Art-integrated projects based on activities like Role Play, Skit, Dramatization etc. must be used. Please refer to the Circular no. Acad-33/2020 dated 14<sup>th</sup> May 2020 at the [http://cbseacademic.nic.in/web\\_material/Circulars/2020/33\\_Circular\\_2020.pdf](http://cbseacademic.nic.in/web_material/Circulars/2020/33_Circular_2020.pdf) for details.**

**Guidelines for the Assessment of Listening and Speaking Skills are given at Annexure I.**

**ENGLISH LANGUAGE AND LITERATURE (Code No. 184)  
2023-24**

**CLASS – IX**

**Marks-80**

<b>Sections</b>	<b>Competencies</b>	<b>Total marks</b>
<b>Reading Comprehension</b>	Conceptual understanding, decoding, analyzing, inferring, interpreting and vocabulary	20
<b>Writing Skills and Grammar</b>	Creative expression of an opinion, reasoning, justifying, illustrating, appropriacy of style and tone, using appropriate format and fluency. Applying conventions, using integrated structures with accuracy and fluency	20
<b>Language through Literature</b>	Recalling, reasoning, appreciating, applying literary conventions illustrating and justifying etc. Extract relevant information, identifying the central theme and sub-theme, understanding the writers' message and writing fluently.	40
<b>Total</b>		<b>80</b>

**For the details of Internal Assessment of 20 marks, please refer to the circular no.**

**Acad-11/2019, dated March 06, 2019.**

**ENGLISH LANGUAGE AND LITERATURE (Code No. 184)**

**CLASS – X**

**2023-24**

**SECTION - WISE WEIGHTAGE**

<b>Sections</b>		<b>Weightage</b>
A	Reading Skills (40 periods)*	20 Marks
B	Writing Skills with Grammar (40 periods)*	20 Marks
C	Language through Literature (50 periods)*	40 Marks

\*This is a suggestive number.

**Section A**

**Reading Skills**

**I. Reading Comprehension through Unseen Passage 20 Marks**

1. Discursive passage of 400-450 words. **(10 marks)**
2. Case-based factual passage (with visual input- statistical data, chart etc.) of 200-250 words. **(10 marks)**

**(Total length of two passages to be 600-700 words)**

Multiple Choice Questions / Objective Type Questions, and Short Answer Questions (to be answered in 30-40 words) will be asked to assess comprehension, interpretation, analysis, inference, evaluation and vocabulary.

**Section B**

**II Grammar**

**Writing Skills and Grammar**

**10 Marks**

- Determiners
- Tenses
- Modals
- Subject – verb concord
- Reported speech
  - Commands and requests
  - Statements
  - Questions



3. The courses at the secondary level seek to cement high professional grasp of grammatical items and levels of accuracy. Accurate use of spelling, punctuation and grammar in context will be assessed through Gap Filling/ Editing/Transformation exercises. Ten out of 12 questions will have to be attempted.

### **III Writing Skills**

**10 marks**

4. Writing a Formal Letter based on a given situation, in 100-120 words. One out of two questions is to be answered. **5 marks**
5. Writing an Analytical Paragraph in 100-120 words on a given Map / Chart / Graph / Cue/ s. One out of two questions is to be answered. **5 marks**

### **Section C**

**40 Marks**

#### **Language through Literature**

#### **IV. Reference to the Context**

**(5+5 = 10 Marks)**

6. One extract out of two from Drama / Prose.  
7. One extract out of two from poetry.

Multiple Choice Questions / Objective Type Questions Very Short Answer Questions (one word/ One sentence), Short Answer Questions (to be answered in 30-40 words) will be asked to assess inference, analysis, interpretation, evaluation and vocabulary.

#### **v. Short & Very Long Answer Questions**

**30 Marks**

8. Four out of Five Short Answer Type Questions to be answered in 40-50 words from the book FIRST FLIGHT to assess interpretation, analysis, inference and evaluation. **4x3=12 marks**
9. Two out of Three Short Answer Type Questions to be answered in 40-50 words each from FOOTPRINTS WITHOUT FEET to assess interpretation, analysis, inference and evaluation. **2x3=6 marks**
10. One out of two Long Answer Type Questions from FIRST FLIGHT to be answered in about 100-120 words each to assess creativity, imagination and extrapolation beyond the text and across the text. This can be a passage-based question taken from a situation/plot from the text. **6 marks**
11. One out of two Long Answer Type Questions from FOOTPRINTS WITHOUT FEET, on theme or plot involving interpretation, extrapolation beyond the text and inference or character sketch to be answered in about 100-120 words. **6 marks**

**Prescribed Books: Published by NCERT, New Delhi**

**1. FIRST FLIGHT**

**A. Prose**

- i. A Letter to God
- ii. Nelson Mandela - Long Walk to Freedom
- iii. Two Stories About Flying
- iv. From the Diary of Anne Frank
- v. Glimpses of India
- vi. Mijbil the Otter
- vii. Madam Rides the Bus
- viii. The Sermon at Benares
- ix. The Proposal (Play)

**B. Poems**

1. Dust of Snow
2. Fire and Ice
3. A Tiger in the Zoo
4. How to Tell Wild Animals
5. The Ball Poem
6. Amanda!
7. The Trees
8. Fog
9. The Tale of Custard the Dragon
10. For Anne Gregory

**2. FOOTPRINTS WITHOUT FEET**

1. A Triumph of Surgery
2. The Thief's Story
3. The Midnight Visitor
4. A Question of Trust
5. Footprints Without Feet
6. The Making of a Scientist
7. The Necklace
8. Bholi
9. The Book that Saved the Earth

**3. WORDS AND EXPRESSIONS – II (WORKBOOK FOR CLASS X) – Units 1 to 4 and Units 7 to 11**

**Note: Teachers are advised to:**

- (i) encourage interaction among peers, students and teachers through activities such as role play, discussions, group work etc.

- (ii) reduce teacher-talking time and keep it to the minimum,
- (iii) take up questions for discussion to encourage pupils to participate and to marshal their ideas and express and defend their views, and
- (iv) follow the Speaking and Listening activities given in the NCERT books.

Besides measuring learning outcome, texts serve the dual purpose of diagnosing mistakes and areas of non-learning. To make evaluation a true index of learners' knowledge, each language skill is to be assessed through a judicious mixture of different types of questions.

#### **INTERNAL ASSESSMENT**

##### **Listening and Speaking Competencies**

**30 Periods**

Assessment of Listening and Speaking Skills will be for 05 marks.

It is recommended that listening and speaking skills should be regularly practiced .

**Art-integrated projects based on activities like Role Play, Skit, Dramatization etc. must be used.**

**Please refer to the Circular no. Acad-33/2020 dated 14<sup>th</sup> May 2020 at the**

**[http://cbseacademic.nic.in/web\\_material/Circulars/2020/33\\_Circular\\_2020.pdf](http://cbseacademic.nic.in/web_material/Circulars/2020/33_Circular_2020.pdf) for details**

**Guidelines for the Assessment of Listening and Speaking Skills are given at Annexure I.**

## ENGLISH LANGUAGE AND LITERATURE

Code no. (184)

2023-24

CLASS – X

Marks 80

Sections	Competencies	Total marks
<b>Reading Comprehension</b>	Conceptual understanding, decoding, analyzing, inferring, interpreting and vocabulary	20
<b>Writing Skills and Grammar</b>	Creative expression of an opinion, reasoning, justifying, illustrating, appropriacy of style and tone, using appropriate format and fluency. Applying conventions, using integrated structures with accuracy and fluency	20
<b>Language through Literature</b>	Recalling, reasoning, appreciating, applying literary conventions illustrating and justifying etc. Extract relevant information, identifying the central theme and sub-theme, understanding the writers' message and writing fluently.	40
<b>Total</b>		<b>80</b>

**For the details of Internal Assessment of 20 marks, please refer to the circular no.**

**Acad-11/2019, dated March 06, 2019.**

### Guidelines for Assessment of Listening and Speaking Skills (ALS)

ALS is a component of the Subject Enrichment Activity under Internal Assessment. ALS must be seen as an integrated component of all four language skills rather than a compartment of two. Suggested activities, therefore, take into consideration an integration of the four language skills but during assessment, emphasis will be given to speaking and listening, since reading and writing are already being assessed in the written exam.

#### Assessment of Listening and Speaking Skills: (5 Marks)

##### i. Activities:

- Subject teachers must refer to books prescribed in the syllabus.
- In addition to the above, teachers may plan their own activities and create their own material for assessing the listening and speaking skills.

##### ii. Parameters for Assessment: The listening and speaking skills are to be assessed on the following parameters:

- a. Interactive competence (Initiation & turn taking, relevance to the topic)
- b. Fluency (cohesion, coherence and speed of delivery)
- c. Pronunciation
- d. Language (grammar and vocabulary)

A suggestive rubric is given below:

Interaction	1.	2.	3.	4.	5.
	<ul style="list-style-type: none"> <li>• Contributions are mainly unrelated to those of other speakers</li> <li>• Shows hardly any initiative in the development of conversation</li> <li>• Very limited interaction</li> </ul>	<ul style="list-style-type: none"> <li>• Contributions are often unrelated to those of the other speaker</li> <li>• Generally passive in the development of conversation</li> </ul>	<ul style="list-style-type: none"> <li>• Develops interaction adequately, makes however minimal effort to initiate conversation</li> <li>• Needs constant prompting to take turns</li> </ul>	<ul style="list-style-type: none"> <li>• Interaction is adequately initiated and developed</li> <li>• Takes turn but needs some prompting</li> </ul>	<ul style="list-style-type: none"> <li>• Initiates &amp; logically develops simple conversation on familiar topics</li> <li>• Takes turns appropriately</li> </ul>

<b>Fluency &amp; Coherence</b>	<ul style="list-style-type: none"> <li>Noticeably/ long pauses; rate of speech is slow</li> <li>Frequent repetition and/or self-correction this is all right in informal conversation</li> <li>Links only basic sentences; breakdown of coherence evident.</li> </ul>	<ul style="list-style-type: none"> <li>Usually fluent; produces simple speech fluently, but loses coherence in complex communication</li> <li>Often hesitates and/or resorts to slow speech</li> <li>Topics partly developed; not always concluded logically</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>Is willing to speak at length, however repetition is noticeable</li> <li>Hesitates and/or self corrects; occasionally loses coherence</li> <li>Topics developed, but usually not logically concluded</li> </ul>	<ul style="list-style-type: none"> <li>Speaks without noticeable effort, with a little repetition</li> <li>Demonstrates hesitation to find words or use correct grammatical structures and/or self-correction</li> <li>Topics not fully developed to merit.</li> </ul>	<ul style="list-style-type: none"> <li>Speaks fluently almost with no repetition &amp; minimal hesitation</li> <li>Develops topic fully &amp; coherently</li> </ul>
<b>Pronunciation</b>	<ul style="list-style-type: none"> <li>Frequent inaccurate pronunciation</li> <li>Communication is severely affected</li> </ul>	<ul style="list-style-type: none"> <li>Frequently unintelligible articulation</li> <li>Frequent phonological errors</li> <li>Major communication problems</li> </ul>	<ul style="list-style-type: none"> <li>Largely correct pronunciation &amp; clear articulation except occasional errors</li> </ul>	<ul style="list-style-type: none"> <li>Mostly correct pronunciation &amp; clear articulation</li> <li>Is clearly understood most of the time; very few phonological errors</li> </ul>	<ul style="list-style-type: none"> <li>Pronounces correctly &amp; articulates clearly</li> <li>Is always comprehensible</li> <li>uses appropriate intonation</li> </ul>
<b>Vocabulary &amp; Grammar</b>	<ul style="list-style-type: none"> <li>Demonstrates almost no flexibility, and mostly struggles for appropriate words</li> <li>Many Grammatical errors impacting communication</li> </ul>	<ul style="list-style-type: none"> <li>Is able to communicate on some of the topics, with limited vocabulary.</li> <li>Frequent errors, but self-corrects</li> </ul>	<ul style="list-style-type: none"> <li>Is able to communicate on most of the topics, with limited vocabulary. A few grammatical errors</li> </ul>	<ul style="list-style-type: none"> <li>Is able to communicate on most of the topics with appropriate vocabulary</li> <li>Minor errors that do not hamper communication</li> </ul>	<ul style="list-style-type: none"> <li>Is able to communicate on most of the topics using a wide range of appropriate vocabulary, using new words and expressions</li> <li>No grammatical errors</li> </ul>

### iii. Schedule:

- The practice of listening and speaking skills should be done throughout the academic year.
- The final assessment of the skills is to be done as per the convenience and schedule of the school.

## द्वितीय भाषा के रूप में हिंदी

(कोड सं.-085)

### कक्षा 9वीं - 10वीं (2023-24)

**राष्ट्रीय शिक्षा नीति 2020** तथा केंद्रीय माध्यमिक शिक्षा बोर्ड द्वारा समय-समय पर दक्षता आधारित शिक्षा, कला समेकित अधिगम, अनुभवात्मक अधिगम को अपनाने की प्रेरणा दी गई है, जो शिक्षार्थियों की प्रतिभा को उजागर करने, खेल-खेल में सीखने पर बल देने, आनंदपूर्ण ज्ञानार्जन और विद्यार्जन के विविध तरीकों को अपनाने तथा अनुभव के द्वारा सीखने पर बल देती है।

**दक्षता आधारित शिक्षा** से तात्पर्य है- सीखने और मूल्यांकन करने का एक ऐसा दृष्टिकोण, जो शिक्षार्थी के सीखने के प्रतिफल और विषय में विशेष दक्षता को प्राप्त करने पर बल देता है। दक्षता वह क्षमता, कौशल, ज्ञान और दृष्टिकोण है, जो व्यक्ति को वास्तविक जीवन में कार्य करने में सहायता करती है। इससे शिक्षार्थी यह सीख सकते हैं कि ज्ञान और कौशल को किस प्रकार प्राप्त किया जाए तथा उन्हें वास्तविक जीवन की समस्याओं पर कैसे लागू किया जाए। जीवनोपयोगी बनाना तथा वास्तविक जीवन के अनुभवों से पाठ को समृद्ध करना ही दक्षता आधारित शिक्षा है। इसके लिए उच्च स्तरीय चिंतन कौशल पर विशेष बल देने की आवश्यकता है।

**कला समेकित अधिगम** को शिक्षण-अधिगम प्रक्रिया में सुनिश्चित करना अत्यधिक आवश्यक है। कला के संसार में कल्पना की एक अलग ही उड़ान होती है। कला एक व्यक्ति की रचनात्मक अभिव्यक्ति है। कला समेकित अधिगम से तात्पर्य है- कला के विविध रूपों संगीत, नृत्य, नाटक, कविता, रंगशाला, यात्रा, मूर्तिकला, आभूषण बनाना, गीत लिखना, नुक्कड़ नाटक, कोलाज, पोस्टर, कला प्रदर्शनी को शिक्षण अधिगम की प्रक्रिया का अभिन्न हिस्सा बनाना। किसी विषय को आरंभ करने के लिए आइस ब्रेकिंग गतिविधि के रूप में तथा सामंजस्यपूर्ण समझ पैदा करने के लिए अंतरविषयक या बहुविषयक परियोजनाओं के रूप में कला समेकित अधिगम का प्रयोग किया जाना चाहिए। इससे पाठ अधिक रोचक एवं ग्राह्य हो जाएगा।

**अनुभवात्मक अधिगम या आनुभविक ज्ञानार्जन** का उद्देश्य शैक्षिक वातावरण को शिक्षार्थी केंद्रित बनाने के साथ-साथ स्वयं मूल्यांकन करने, आलोचनात्मक रूप से सोचने, निर्णय लेने तथा ज्ञान का निर्माण कर उसमें पारंगत होने से है। यहाँ शिक्षक की भूमिका सुविधा प्रदाता व प्रेक्षक की रहती है। ज्ञानार्जन-आनुभविक ज्ञानार्जन, सहयोगात्मक तथा स्वतंत्र रूप से होता है और यह शिक्षार्थियों को एक साथ कार्य करने तथा स्वयं के अनुभव द्वारा सीखने पर बल देता है। यह सिद्धांत और व्यवहार के बीच की दूरी को कम करता है।

भारत एक बहुभाषी देश है जिसमें बहुत सी क्षेत्रीय भाषाएँ रची बसी हैं। भाषिक और सांस्कृतिक दृष्टि से भिन्न होने के बावजूद भारतीय परंपरा में बहुत कुछ ऐसा है जो एक दूसरे को जोड़ता है। यही कारण है कि मातृभाषा के रूप में अलग भाषा को पढ़ने वाला विद्यार्थी जब दूसरी भाषा के रूप में हिंदी का चुनाव करता है तो उसके पास अभिव्यक्ति का एक दृढ़ आधार पहली भाषा के रूप में पहले से ही मौजूद होता है। इसलिए छठी से आठवीं कक्षा में सीखी हुई हिंदी का विकास भी वह तेजी से करने लगता है। आठवीं कक्षा तक वह हिंदी भाषा में सुनने, पढ़ने, लिखने और कुछ-कुछ बोलने का अभ्यास कर चुका होता है। हिंदी की बाल पत्रिकाएँ और छिटपुट रचनाएँ पढ़ना भी अब उसे आ गया

है। इसलिए जब वह नवीं एवं दसवीं कक्षा में हिंदी पढ़ेगा तो जहाँ एक ओर हिंदी भाषा के माध्यम से सारे देश से जुड़ेगा वहीं दूसरी ओर अपने क्षेत्र और परिवेश को हिंदी भाषा के माध्यम से जानने की कोशिश भी करेगा, क्योंकि किशोरवय के इन बच्चों के मानसिक धरातल का विकास विश्व स्तर तक पहुँच चुका होता है।

### शिक्षण उद्देश्य

- दैनिक जीवन में हिंदी में समझने-बोलने के साथ-साथ लिखने की क्षमता का विकास करना।
- हिंदी के किशोर-साहित्य, अखबार व पत्रिकाओं को पढ़कर समझ पाना और उसका आनंद उठाने की क्षमता का विकास करना।
- औपचारिक विषयों और संदर्भों में बातचीत में भाग ले पाने की क्षमता का विकास करना।
- हिंदी के ज़रिए अपने अनुभव संसार को लिखकर सहज अभिव्यक्ति कर पाने में सक्षम बनाना।
- संचार के विभिन्न माध्यमों (प्रिंट और इलेक्ट्रॉनिक) में प्रयुक्त हिंदी के विभिन्न रूपों को समझने की योग्यता का विकास करना।
- कक्षा में बहुभाषिक, बहुसांस्कृतिक संदर्भों के प्रति संवेदनशील सकारात्मक सोच बनाना।
- अपनी मातृभाषा और परिवेशगत भाषा को साथ रखकर हिंदी की संरचनाओं की समझ बनाना।
- सामाजिक मुद्दों पर समझ बनाना। (जाति, लिंग तथा आर्थिक विषमता)
- कविता, कहानी तथा घटनाओं को रोचक ढंग से लिखना ।
- भाषा एवं साहित्य को समझने एवं आत्मसात करने की दक्षता का विकास।

### शिक्षण युक्तियाँ

- द्वितीय भाषा के रूप में पढ़ाई जा रही हिंदी भाषा का स्तर ऐसा होना चाहिए कि उसकी गति धीरे-धीरे बढ़ सके, इसके लिए हिंदी अध्यापकों को बड़े धीरज से अपने अध्यापन कार्यक्रमों को नियोजित करना होगा। किसी भी द्वितीय भाषा में निपुणता प्राप्त करने-कराने का एक ही उपाय है-उस भाषा का लगातार रोचक अभ्यास करना-कराना। ये अभ्यास जितने अधिक रोचक, सक्रिय एवं प्रासंगिक होंगे विद्यार्थियों की भाषिक उपलब्धि भी उतनी ही तेज़ी से हो सकेगी। मुखर भाषिक अभ्यास के लिए वार्तालाप, रोचक कहानी सुनना-सुनाना, घटना-वर्णन, चित्र-वर्णन, संवाद, वाद-विवाद, अभिनय, भाषण प्रतियोगिताएँ, कविता पाठ और अंत्याक्षरी जैसी गतिविधियों का सहारा लिया जा सकता है।
- **काव्य भाषा के मर्म** से विद्यार्थी का परिचय कराने के लिए ज़रूरी होगा कि किताबों में आए काव्यांशों की लयबद्ध प्रस्तुतियों के ऑडियो-वीडियो कैसेट तैयार किए जाएँ। अगर आसानी से



कोई गायक/गायिका मिले तो कक्षा में मध्यकालीन साहित्य के अध्यापन-शिक्षण में उससे मदद ली जानी चाहिए।

- एनसीईआरटी द्वारा तैयार किए गए **अधिगम प्रतिफल** /सीखने-सिखाने की प्रक्रिया जो इस पाठ्यचर्या के साथ संलग्नक के रूप में उपलब्ध है, को शिक्षक द्वारा क्षमता आधारित शिक्षा का लक्ष्य प्राप्त करने के लिये अनिवार्य रूप से इस्तेमाल करने की आवश्यकता है।
- मानव संसाधन विकास मंत्रालय के विभिन्न संगठनों तथा स्वतंत्र निर्माताओं द्वारा उपलब्ध कराए गए अन्य कार्यक्रम/ई-सामग्री/ वृत्तचित्रों और सिनेमा को शिक्षण-सामग्री के तौर पर इस्तेमाल करने की ज़रूरत है। इनके प्रदर्शन के क्रम में इन पर लगातार बातचीत के ज़रिए **सिनेमा के माध्यम से भाषा के प्रयोग** की विशिष्टता की पहचान कराई जा सकती है और हिंदी की अलग-अलग छटा दिखाई जा सकती है।
- कक्षा में सिर्फ एक पाठ्यपुस्तक की उपस्थिति से बेहतर होगा कि शिक्षक के हाथ में विभिन्न प्रकार की पाठ्यसामग्री को विद्यार्थी देखें और कक्षा में अलग-अलग मौकों पर शिक्षक उनका इस्तेमाल कर सकें।
- भाषा लगातार ग्रहण करने की क्रिया में बनती है, इसे प्रदर्शित करने का एक तरीका यह भी है कि शिक्षक खुद यह सिखा सकें कि वे भी **शब्दकोश, साहित्यकोश, संदर्भग्रंथ** की लगातार मदद ले रहे हैं। इससे विद्यार्थियों में इनके इस्तेमाल करने को लेकर तत्परता बढ़ेगी। अनुमान के आधार पर निकटतम अर्थ तक पहुँचकर संतुष्ट होने की जगह वे सटीक अर्थ की खोज करने के लिए प्रेरित होंगे। इससे शब्दों की अलग-अलग रंगत का पता चलेगा, वे शब्दों के बारीक अंतर के प्रति और सजग हो पाएँगे।
- भिन्न क्षमता वाले विद्यार्थियों के लिए उपयुक्त शिक्षण-सामग्री का इस्तेमाल किया जाए तथा किसी भी प्रकार से उन्हें अन्य विद्यार्थियों से कमतर या अलग न समझा जाए।
- कक्षा में अध्यापन को हर प्रकार की विविधताओं (लिंग, धर्म, जाति, वर्ग, भाषा आदि) के प्रति सकारात्मक और संवेदनशील वातावरण निर्मित करना चाहिए।

### **श्रवण (सुनने) और वाचन (बोलने) की योग्यताएँ**

- प्रवाह के साथ बोली जाती हुई हिंदी को अर्थबोध के साथ समझना।
- हिंदी शब्दों का उचित उच्चारण करना तथा हिंदी के स्वाभाविक अनुतान का प्रयोग करना।
- सामान्य विषयों पर बातचीत करना और परिचर्चा में भाग लेना।
- हिंदी कविताओं को उचित लय, आरोह-अवरोह और भाव के साथ पढ़ना।
- सरल विषयों पर कुछ तैयारी के साथ दो-चार मिनट का भाषण देना।
- हिंदी में स्वागत करना, परिचय और धन्यवाद देना।
- अभिनय में भाग लेना।

### श्रवण तथा वाचन परीक्षा हेतु दिशा-निर्देश

- **श्रवण (सुनना) (2.5 अंक):** वर्णित या पठित सामग्री को सुनकर अर्थग्रहण करना, वार्तालाप करना, वाद-विवाद, भाषण, कविता पाठ आदि को सुनकर समझना, विश्लेषण करना, मूल्यांकन करना और तदनुसार अभिव्यक्ति के ढंग को समझना।
- **वाचन (बोलना) (2.5 अंक):** भाषण, सस्वर कविता-पाठ, वार्तालाप और उसकी औपचारिकता, कार्यक्रम-प्रस्तुति, कथा-कहानी अथवा घटना सुनाना, परिचय देना, भावानुकूल संवाद-वाचन।

### श्रवण (सुनना) एवं वाचन (बोलना) कौशल:

- परीक्षक किसी प्रासंगिक विषय पर एक अनुच्छेद का स्पष्ट वाचन करेगा। अनुच्छेद तथ्यात्मक या सुझावात्मक हो सकता है। अनुच्छेद लगभग 120 शब्दों का होना चाहिए।

या

- परीक्षक 1-1.5 मिनट का श्रव्य अंश (ऑडियो क्लिप) सुनवाएगा। अंश रोचक होना चाहिए। कथ्य/ घटना पूर्ण एवं स्पष्ट होनी चाहिए। वाचक का उच्चारण शुद्ध, स्पष्ट एवं विराम चिह्नों के उचित प्रयोग सहित होना चाहिए।
- परीक्षार्थी ध्यानपूर्वक परीक्षक/ऑडियो क्लिप को सुनने के पश्चात परीक्षक द्वारा पूछे गए प्रश्नों का अपनी समझ से मौखिक अथवा कार्यपत्रक के माध्यम से उत्तर देंगे।

### कौशलों के अंतरण का मूल्यांकन

(इस बात का निश्चय करना कि क्या विद्यार्थी में श्रवण और वाचन की निम्नलिखित योग्यताएँ हैं)

	श्रवण (सुनना)		वाचन (बोलना)
1	परिचित संदर्भों में प्रयुक्त शब्दों और पदों को समझने की सामान्य योग्यता है।	1	केवल अलग-अलग शब्दों और पदों के प्रयोग की योग्यता प्रदर्शित करता है।
2	छोटे सुसंबद्ध कथनों को परिचित संदर्भों में समझने की योग्यता है।	2	परिचित संदर्भों में शुद्धता से केवल छोटे संबद्ध कथनों का सीमित प्रयोग करता है।
3	परिचित या अपरिचित दोनों संदर्भों में कथित सूचना को स्पष्ट समझने की योग्यता है।	3	अपेक्षाकृत दीर्घ भाषण में जटिल कथनों के प्रयोग की योग्यता प्रदर्शित करता है।
4	दीर्घ कथनों को पर्याप्त शुद्धता से समझता है और निष्कर्ष निकाल सकता है।	4	अपरिचित स्थितियों में विचारों को तार्किक ढंग से संगठित कर धारा-प्रवाह रूप में प्रस्तुत करता है।

5	जटिल कथनों के विचार-बिंदुओं को समझने और विश्लेषित करने की योग्यता प्रदर्शित करने की क्षमता है।	5	उद्देश्य और श्रोता के लिए उपयुक्त शैली को अपना सकता है।
---	--	---	---

### पठन कौशल

#### पढ़ने की योग्यताएँ

- हिंदी में कहानी, निबंध, यात्रा-वर्णन, जीवनी, पत्र, डायरी आदि को अर्थबोध के साथ पढ़ना।
- पाठ्यवस्तु के संबंध में विचार करना और अपना मत व्यक्त करना।
- संदर्भ साहित्य को पढ़कर अपने काम के लायक सूचना एकत्र करना।
- पठित सामग्री के विभिन्न अंशों का परस्पर संबंध समझना।
- पठित वस्तु का सारांश तैयार करना।
- भाषा, विचार एवं शैली की सराहना करना।
- साहित्य के प्रति अभिरुचि का विकास करना।

#### लिखने की योग्यताएँ

- लिखते हुए व्याकरण-सम्मत भाषा का प्रयोग करना।
- हिंदी के परिचित और अपरिचित शब्दों की सही वर्तनी लिखना।
- विराम चिह्नों का समुचित प्रयोग करना।
- लेखन के लिए सक्रिय (व्यवहारोपयोगी) शब्द भंडार की वृद्धि करना।
- प्रभावपूर्ण भाषा तथा लेखन-शैली का स्वाभाविक रूप से प्रयोग करना।
- उपयुक्त अनुच्छेदों में बाँटकर लिखना।
- प्रार्थना पत्र, निमंत्रण पत्र, बधाई पत्र, संवेदना पत्र, आदेश पत्र, ईमेल, एस.एम.एस आदि लिखना और विविध प्रपत्रों को भरना।
- विविध स्रोतों से आवश्यक सामग्री एकत्र कर एक अभीष्ट विषय पर अनुच्छेद लिखना।
- देखी हुई घटनाओं का वर्णन करना और उन पर अपनी प्रतिक्रिया प्रकट करना।
- पढ़ी हुई कहानी को संवाद में तथा संवाद को कहानी में परिवर्तित करना।
- समारोह और गोष्ठियों की सूचना और प्रतिवेदन तैयार करना।
- लिखने में सृजनात्मकता लाना।
- अनावश्यक काट-छाँट से बचते हुए सुपाठ्य लेखन कार्य करना
- दो भिन्न पाठों की पाठ्यवस्तु पर चिंतन करके उनके मध्य की संबद्धता (अंतर्संबंधों) पर अपने विचार अभिव्यक्त करने में सक्षम होना।

- रटे-रटाए वाक्यों के स्थान पर अभिव्यक्तिपरक/ स्थिति आधारित/ उच्च चिंतन क्षमता वाले प्रश्नों पर सहजता से अपने मौलिक विचार प्रकट करना।

## रचनात्मक अभिव्यक्ति

### अनुच्छेद लेखन

- पूर्णता - संबंधित विषय के सभी पक्षों को अनुच्छेद के सीमित आकार में संयोजित करना।
- क्रमबद्धता- विचारों को क्रमबद्ध एवं तर्कसंगत विधि से प्रकट करना।
- विषय-केंद्रित - प्रारंभ से अंत तक अनुच्छेद का एक सूत्र में बँधा होना।
- सामासिकता - अनावश्यक विस्तार न देकर सीमित शब्दों में यथासंभव विषय संबद्ध पूरी बात कहने का प्रयास करना।

### पत्र लेखन

- अनौपचारिक पत्र द्वारा पारस्परिक संबंधों मैत्रीपूर्ण भावों को व्यक्त करने हेतु सरल, संक्षिप्त लेखन शैली का विकास।
- औपचारिक पत्रों द्वारा दैनंदिनी जीवन की विभिन्न स्थितियों में कार्य, व्यापार, संवाद, परामर्श, अनुरोध तथा सुझाव के लिए प्रभावी एवं स्पष्ट संप्रेषण क्षमता का विकास।
- सरल और बोलचाल की भाषा शैली, उपयुक्त, सटीक शब्दों के प्रयोग, सीधे-सादे ढंग से स्पष्ट और प्रत्यक्ष बात की प्रस्तुति।
- प्रारूप की आवश्यक औपचारिकताओं के साथ सुस्पष्ट, सुलझे और क्रमबद्ध विचार आवश्यक; तथ्य, संक्षिप्तता और संपूर्णता के साथ प्रभावी प्रस्तुति।

### विज्ञापन लेखन

(विज्ञापित वस्तु / विषय को केंद्र में रखते हुए)

- विज्ञापित वस्तु के विशिष्ट गुणों का उल्लेख
- आकर्षक लेखन शैली
- प्रस्तुति में नयापन, वर्तमान से जुड़ाव तथा दूसरों से भिन्नता
- विज्ञापन में आवश्यकतानुसार नारे (स्लोगन) का उपयोग
- विज्ञापन लेखन में बॉक्स, चित्र अथवा रंग का उपयोग अनिवार्य नहीं है, किंतु समय होने पर प्रस्तुति को प्रभावी बनाने के लिए इनका उपयोग किया जा सकता है।

### चित्र-वर्णन

(चित्र में दिखाई दे रहे दृश्य / घटना को कल्पनाशक्ति से अपने शब्दों में लिखना)

- परिवेश की समझ

- सूक्ष्म विवरणों पर ध्यान
- दृश्यानुकूल भाषा
- क्रमबद्धता और तारतम्यता
- प्रभावशाली अभिव्यक्ति

### संवाद लेखन

(दी गई परिस्थितियों के आधार पर संवाद लेखन)

- सीमा के भीतर एक दूसरे से जुड़े सार्थक और उद्देश्यपूर्ण संवाद
- पात्रों के अनुकूल भाषा शैली
- कोष्ठक में वक्ता के हाव भाव का संकेत
- संवाद लेखन के अंत तक विषय मुद्दे पर वार्ता

### सूचना लेखन

(औपचारिक शैली में व्यावहारिक जीवन से संबंधित विषयों पर आधारित सूचना लेखन)

- सरल एवं बोधगम्य भाषा
- विषय की स्पष्टता
- विषय से जुड़ी संपूर्ण जानकारी
- औपचारिक शिष्टाचार का निर्वाह

### ई-मेल लेखन

(विविध विषयों पर आधारित औपचारिक ई-मेल लेखन)

- सरल, शिष्ट व बोधगम्य भाषा
- विषय से संबद्धता
- संक्षिप्त कलेवर, किंतु विषयगत संपूर्ण जानकारी
- व्यावहारिक/कार्यालयी शिष्टाचार व औपचारिकताओं का निर्वाह

### लघुकथा लेखन

(दिए गए विषय/शीर्षक आदि के आधार पर रचनात्मक सोच के साथ लघुकथा लेखन)

- निरंतरता
- कथात्मकता
- प्रभावी संवाद/पात्रानुकूल संवाद
- रचनात्मकता, कल्पनाशक्ति का उपयोग
- जिज्ञासा/रोचकता
- उद्देश्य केंद्रीयता

कक्षा 9वीं हिंदी 'ब' (कोड सं. 085) -परीक्षाओं हेतु पाठ्यक्रम विनिर्देशन 2023-24

- प्रश्नपत्र दो खंडों, खंड 'अ' और 'ब' में विभक्त होगा।
- खंड 'अ' में 45 वस्तुपरक प्रश्न पूछे जाएँगे, जिनमें से केवल 40 प्रश्नों के ही उत्तर देने होंगे।
- खंड 'ब' में वर्णनात्मक प्रश्न पूछे जाएँगे। प्रश्नों में उचित आंतरिक विकल्प दिए जाएँगे।
- भारांक-{80(वार्षिक परीक्षा)+ 20 (आंतरिक परीक्षा)}
- कुल अंक-100

निर्धारित समय- 3 घंटे

भारांक-80

परीक्षा भार विभाजन		
	विषयवस्तु	भार
	खंड अ (वस्तुपरक प्रश्न)	40
1	अपठित गद्यांश	10
	अ दो अपठित गद्यांश (लगभग 200 शब्दों के) (1x5=5)+(1x5=5) (प्रत्येक गद्यांश पर आधारित पाँच बहुविकल्पीय प्रश्न पूछे जाएँगे।	10
2	व्यावहारिक व्याकरण के आधार पर बहुविकल्पात्मक प्रश्न (1 अंक x16 प्रश्न) 21 प्रश्न पूछे जाएँगे जिनमें से केवल 16 प्रश्नों के उत्तर देने होंगे।	16
	i शब्द और पद (2 अंक) (2 प्रश्न)	02
	ii अनुस्वार (1 अंक), अनुनासिक (1 अंक) (3 में से 2 प्रश्न)	02
	iii उपसर्ग (2 अंक), प्रत्यय (2 अंक) (5 में से 4 प्रश्न)	04
	iv स्वर संधि (3 अंक) (4 में से 3 प्रश्न)	03
	v विराम-चिह्न (3 अंक) (4 में से 3 प्रश्न)	03
	vi अर्थ की दृष्टि से वाक्य भेद (2 अंक) (3 में से 2 प्रश्न)	02
3	पाठ्यपुस्तक स्पर्श, भाग-1	14
	काव्य खंड	07
	पठित पद्यांश पर एक अंकीय पाँच बहुविकल्पी प्रश्न। (1x5)	05
	स्पर्श (भाग-1) से निर्धारित कविताओं के आधार पर एक अंकीय दो बहुविकल्पी प्रश्न पूछे जाएँगे। (1x2)	02

	<b>गद्य खंड</b>		<b>07</b>
	पठित गद्यांश पर एक अंकीय पाँच बहुविकल्पी प्रश्न। (1x5)		<b>05</b>
	स्पर्श (भाग-1) से निर्धारित गद्य पाठों के आधार पर विद्यार्थियों की उच्च चिंतन क्षमताओं एवं अभिव्यक्ति का आकलन करने हेतु एक अंकीय दो बहुविकल्पी प्रश्न पूछे जाएँगे। (1x2)		<b>02</b>
	<b>खंड - ब (वर्णनात्मक प्रश्न)</b>		<b>40</b>
<b>4</b>	<b>पाठ्यपुस्तक स्पर्श, भाग-1</b>		<b>12</b>
	<b>1</b> स्पर्श (गद्य खंड) से निर्धारित पाठों के आधार पर तीन में से दो प्रश्न पूछे जाएँगे। (3 अंक x 2 प्रश्न) (लगभग 60 शब्द)		<b>06</b>
	<b>2</b> स्पर्श (काव्य खंड) से निर्धारित पाठों के आधार पर तीन में से दो प्रश्न पूछे जाएँगे। (3 अंक x 2 प्रश्न) (लगभग 60 शब्द)		<b>06</b>
	<b>पूरक पाठ्यपुस्तक संचयन भाग - 1</b>		<b>06</b>
	पूरक पाठ्यपुस्तक संचयन के निर्धारित पाठों से तीन में से दो प्रश्न पूछे जाएँगे, जिनका उत्तर लगभग 60 शब्दों में देना होगा। (3 अंक x 2 प्रश्न)		<b>06</b>
<b>5</b>	<b>लेखन</b>		<b>22</b>
	<b>i</b> संकेत बिंदुओं पर आधारित समसामयिक एवं व्यावहारिक जीवन से जुड़े हुए किन्हीं तीन विषयों में से किसी एक विषय पर लगभग 100 शब्दों में अनुच्छेद लेखन। (6 अंक x1 प्रश्न) (विकल्प सहित)		<b>06</b>
	<b>ii</b> अभिव्यक्ति की क्षमता पर केंद्रित व्यावहारिक विषयों में से किसी एक विषय पर लगभग 100 शब्दों में अनौपचारिक पत्र। (6 अंक x 1 प्रश्न)		<b>06</b>
	<b>iii</b> चित्र वर्णन- चित्र में दिखाई दे रहे दृश्य /घटना का कल्पनाशक्ति से लगभग 100 शब्दों में वर्णन। (विचारों का वर्णन स्पष्ट रूप से चित्र से ही संबद्ध होना चाहिए) (बिना किसी विकल्प के)		<b>05</b>
	<b>iv</b> दी गई परिस्थितियों के आधार पर संवाद लेखन। (लगभग 100 शब्दों में) (विकल्प सहित)		<b>05</b>
	<b>कुल</b>		<b>80</b>
	<b>आंतरिक मूल्यांकन</b>	<b>अंक</b>	<b>20</b>
	<b>अ</b> सामयिक आकलन	<b>5</b>	
	<b>ब</b> बहुविध आकलन	<b>5</b>	

	स	पोर्टफोलियो	5	
	द	श्रवण एवं वाचन	5	
		कुल		100

निर्धारित पुस्तकें:

1. स्पर्श, भाग-1, एन.सी.ई.आर.टी., नई दिल्ली द्वारा प्रकाशित नवीनतम संस्करण
2. संचयन, भाग-1, एन.सी.ई. आर.टी., नई दिल्ली द्वारा प्रकाशित नवीनतम संस्करण

❖ नोट : निम्नलिखित पाठों से प्रश्न नहीं पूछे जाएँगे-

स्पर्श(भाग -1)	<ul style="list-style-type: none"> <li>• धर्म की आड़ (पूरा पाठ)</li> <li>• आदमीनामा (पूरा पाठ)</li> <li>• एक फूल की चाह (पूरा पाठ)</li> </ul>
संचयन(भाग-1)	<ul style="list-style-type: none"> <li>• हामिद खाँ (पूरा पाठ)</li> <li>• दिये जल उठे (पूरा पाठ)</li> </ul>



**कक्षा 10वीं हिंदी 'ब' परीक्षा हेतु पाठ्यक्रम विनिर्देशन-2023-2024**

- प्रश्न-पत्र दो खंडों - खंड 'अ' और 'ब' का होगा।
- खंड 'अ' में 45 वस्तुपरक प्रश्न पूछे जाएँगे, जिनमें से केवल 40 प्रश्नों के ही उत्तर देने होंगे।
- खंड 'ब' में वर्णनात्मक प्रश्न पूछे जाएँगे। प्रश्नों में उचित आंतरिक विकल्प दिए जाएँगे।
- भारांक-(80(वार्षिक परीक्षा)+ 20 (आंतरिक परीक्षा))
- कुल अंक - 100

**निर्धारित समय- 3 घंटे**

**भारांक -80**

परीक्षा भार विभाजन		
	विषयवस्तु	भार
	<b>खंड अ (वस्तुपरक प्रश्न)</b>	<b>40</b>
<b>1</b>	<b>अपठित गद्यांश</b>	<b>10</b>
	<b>अ</b> दो अपठित गद्यांश (लगभग 200 शब्दों के) (1x5=5)+(1x5=5) (प्रत्येक गद्यांश पर आधारित पाँच बहुविकल्पीय प्रश्न पूछे जाएँगे )	10
<b>2</b>	<b>व्यावहारिक व्याकरण के आधार पर बहुविकल्पात्मक प्रश्न (1 अंक x16 प्रश्न)</b> कुल 21 प्रश्न पूछे जाएँगे, जिनमें से केवल 16 प्रश्नों के उत्तर देने होंगे।	<b>16</b>
	<b>1</b> पदबंध (5 में से 4 प्रश्न)	04
	<b>2</b> रचना के आधार पर वाक्य रूपांतरण (5 में से 4 प्रश्न)	04
	<b>3</b> समास (5 में से 4 प्रश्न)	04
	<b>4</b> मुहावरे (6 में से 4 प्रश्न)	04
<b>3</b>	<b>पाठ्यपुस्तक स्पर्श भाग - 2</b>	<b>14</b>
	<b>काव्य खंड</b>	<b>07</b>
	पठित पद्यांश पर एक अंकीय पाँच बहुविकल्पी प्रश्न। (1x5) स्पर्श (भाग-2) से निर्धारित कविताओं के आधार पर एक अंकीय दो बहुविकल्पी प्रश्न पूछे जाएँगे। (1x2)	5 2

	<b>गद्य खंड</b>	<b>7</b>
	पठित गद्यांश पर एक अंकीय पाँच बहुविकल्पी प्रश्न। (1x5)	5
	स्पर्श (भाग - 2) से निर्धारित गद्य पाठों के आधार पर विद्यार्थियों की उच्च चिंतन क्षमताओं एवं अभिव्यक्ति का आकलन करने हेतु एक अंकीय दो बहुविकल्पी प्रश्न पूछे जाएँगे। (1x2)	2
	<b>खंड - ब (वर्णनात्मक प्रश्न)</b>	<b>40</b>
<b>4</b>	<b>पाठ्यपुस्तक स्पर्श भाग - 2</b>	<b>12</b>
	1 स्पर्श (गद्य खंड)से निर्धारित पाठों के आधार पर तीन में से दो प्रश्न पूछे जाएँगे। (3 अंक x 2 प्रश्न) (लगभग 60 शब्द)	06
	2 स्पर्श (काव्य खंड) से निर्धारित पाठों के आधार पर तीन में से दो प्रश्न पूछे जाएँगे। (3 अंक x 2 प्रश्न) (लगभग 60 शब्द)	06
	<b>पूरक पुस्तक संचयन भाग - 2</b>	<b>06</b>
	पूरक पुस्तक संचयन के निर्धारित पाठों से तीन में से दो प्रश्न पूछे जाएँगे, जिनका उत्तर लगभग 60 शब्दों में देना होगा। (3 अंक x 2 प्रश्न)	06
<b>5</b>	<b>लेखन</b>	<b>22</b>
	i संकेत बिंदुओं पर आधारित समसामयिक एवं व्यावहारिक जीवन से जुड़े हुए किन्हीं तीन विषयों में से किसी एक विषय पर लगभग 100 शब्दों में अनुच्छेद लेखन। (5 अंक x1 प्रश्न) (विकल्प सहित)	05
	ii अभिव्यक्ति की क्षमता पर केंद्रित औपचारिक विषयों में से किसी एक विषय पर लगभग 100 शब्दों में पत्र। (5 अंक x 1 प्रश्न)	05
	iii व्यावहारिक जीवन से संबंधित विषयों पर आधारित लगभग 60 शब्दों में सूचना लेखन। (4 अंक x1 प्रश्न) (विकल्प सहित)	04
	iv विषय से संबंधित लगभग 40 शब्दों के अंतर्गत विज्ञापन लेखन। (3 अंक x1 प्रश्न) (विकल्प सहित)	03
	v दिए गए विषय/शीर्षक आदि के आधार पर रचनात्मक सोच के साथ लगभग 100 शब्दों में लघुकथा लेखन। (5 अंकx1 प्रश्न) अथवा विविध विषयों पर आधारित लगभग 100 शब्दों में औपचारिक ई-मेल लेखन	05
	<b>कुल</b>	<b>80</b>



**MATHEMATICS (IX-X)**  
**(CODE NO. 041)**  
**Session 2023-24**

The Syllabus in the subject of Mathematics has undergone changes from time to time in accordance with growth of the subject and emerging needs of the society. The present revised syllabus has been designed in accordance with National Curriculum Framework 2005 and as per guidelines given in the Focus Group on Teaching of Mathematics which is to meet the emerging needs of all categories of students. For motivating the teacher to relate the topics to real life problems and other subject areas, greater emphasis has been laid on applications of various concepts.

The curriculum at Secondary stage primarily aims at enhancing the capacity of students to employ Mathematics in solving day-to-day life problems and studying the subject as a separate discipline. It is expected that students should acquire the ability to solve problems using algebraic methods and apply the knowledge of simple trigonometry to solve problems of height and distances. Carrying out experiments with numbers and forms of geometry, framing hypothesis and verifying these with further observations form inherent part of Mathematics learning at this stage. The proposed curriculum includes the study of number system, algebra, geometry, trigonometry, mensuration, statistics, graphs and coordinate geometry, etc.

The teaching of Mathematics should be imparted through activities which may involve the use of concrete materials, models, patterns, charts, pictures, posters, games, puzzles and experiments.

**Objectives**

The broad objectives of teaching of Mathematics at secondary stage are to help the learners to:

- 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 processes and skills;
- develop mastery of basic algebraic skills;
- develop drawing skills;
- feel the flow of reason while proving a result or solving a problem;
- apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method;
- to develop ability to think, analyze and articulate logically;
- to develop awareness of the need for national integration, protection of environment, observance of small family norms, removal of social barriers, elimination of gender biases;
- to develop necessary skills to work with modern technological devices and mathematical software's.
- 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 interest in the subject by participating in related competitions;
- to acquaint students with different aspects of Mathematics used in daily life;
- to develop an interest in students to study Mathematics as a discipline.

## COURSE STRUCTURE CLASS -IX

Units	Unit Name	Marks
I	NUMBER SYSTEMS	10
II	ALGEBRA	20
III	COORDINATE GEOMETRY	04
IV	GEOMETRY	27
V	MENSURATION	13
VI	STATISTICS	06
	Total	80

### UNIT I: NUMBER SYSTEMS

#### 1. REAL NUMBERS

(18) Periods

- Review of representation of natural numbers, integers, and rational numbers on the number line. Rational numbers as recurring/ terminating decimals. Operations on real numbers.
- Examples of non-recurring/non-terminating decimals. Existence of non-rational numbers (irrational numbers) such as  $\sqrt{2}$ ,  $\sqrt{3}$  and their representation on the number line. Explaining that every real number is represented by a unique point on the number line and conversely, viz. every point on the number line represents a unique real number.
- Definition of nth root of a real number.
- Rationalization (with precise meaning) of real numbers of the type  $\frac{1}{a+b\sqrt{x}}$  and  $\frac{1}{\sqrt{x}+\sqrt{y}}$  (and their combinations) where x and y are natural number and a and b are integers.
- Recall of laws of exponents with integral powers. Rational exponents with positive real bases (to be done by particular cases, allowing learner to arrive at the general laws.)

### UNIT II: ALGEBRA

#### 1. POLYNOMIALS

(26) Periods

Definition of a polynomial in one variable, with examples and counter examples. Coefficients of a polynomial, terms of a polynomial and zero polynomial. Degree of a polynomial. Constant, linear, quadratic and cubic polynomials. Monomials, binomials, trinomials. Factors and multiples. Zeros of a polynomial. Motivate and State the Remainder Theorem with examples. Statement and proof of the Factor Theorem. Factorization of  $ax^2 + bx + c$ ,  $a \neq 0$  where a, b and c are real numbers, and of cubic polynomials using the Factor Theorem.

Recall of algebraic expressions and identities. Verification of identities:

$$(x + y + z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2zx$$

$$(x \pm y)^3 = x^3 \pm y^3 \pm 3xy(x \pm y)$$

$$x^3 \pm y^3 = (x \pm y)(x^2 \mp xy + y^2)$$

$$x^3 + y^3 + z^3 - 3xyz = (x + y + z)(x^2 + y^2 + z^2 - xy - yz - zx)$$

and their use in factorization of polynomials.

## 2. LINEAR EQUATIONS IN TWO VARIABLES

(16) Periods

Recall of linear equations in one variable. Introduction to the equation in two variables.

Focus on linear equations of the type  $ax + by + c = 0$ . Explain that a linear equation in two variables has infinitely many solutions and justify their being written as ordered pairs of real numbers, plotting them and showing that they lie on a line.

## UNIT III: COORDINATE GEOMETRY

### COORDINATE GEOMETRY

(7) Periods

The Cartesian plane, coordinates of a point, names and terms associated with the coordinate plane, notations.

## UNIT IV: GEOMETRY

### 1. INTRODUCTION TO EUCLID'S GEOMETRY

(7) Periods

History - Geometry in India and Euclid's geometry. Euclid's method of formalizing observed phenomenon into rigorous Mathematics with definitions, common/obvious notions, axioms/postulates and theorems. The five postulates of Euclid. Showing the relationship between axiom and theorem, for example:

(Axiom) 1. Given two distinct points, there exists one and only one line through them.

(Theorem) 2. (Prove) Two distinct lines cannot have more than one point in common.

### 2. LINES AND ANGLES

(15) Periods

1. (Motivate) If a ray stands on a line, then the sum of the two adjacent angles so formed is  $180^\circ$  and the converse.
2. (Prove) If two lines intersect, vertically opposite angles are equal.
3. (Motivate) Lines which are parallel to a given line are parallel.

### 3. TRIANGLES

(22) Periods

1. (Motivate) Two triangles are congruent if any two sides and the included angle of one triangle is equal to any two sides and the included angle of the other triangle (SAS Congruence).
2. (Prove) Two triangles are congruent if any two angles and the included side of one triangle is equal to any two angles and the included side of the other triangle (ASA Congruence).

3. (Motivate) Two triangles are congruent if the three sides of one triangle are equal to three sides of the other triangle (SSS Congruence).
4. (Motivate) Two right triangles are congruent if the hypotenuse and a side of one triangle are equal (respectively) to the hypotenuse and a side of the other triangle. (RHS Congruence)
5. (Prove) The angles opposite to equal sides of a triangle are equal.
6. (Motivate) The sides opposite to equal angles of a triangle are equal.

#### **4. QUADRILATERALS**

**(13) Periods**

1. (Prove) The diagonal divides a parallelogram into two congruent triangles.
2. (Motivate) In a parallelogram opposite sides are equal, and conversely.
3. (Motivate) In a parallelogram opposite angles are equal, and conversely.
4. (Motivate) A quadrilateral is a parallelogram if a pair of its opposite sides is parallel and equal.
5. (Motivate) In a parallelogram, the diagonals bisect each other and conversely.
6. (Motivate) In a triangle, the line segment joining the mid points of any two sides is parallel to the third side and in half of it and (motivate) its converse.

#### **5. CIRCLES**

**(17) Periods**

1. (Prove) Equal chords of a circle subtend equal angles at the center and (motivate) its converse.
2. (Motivate) The perpendicular from the center of a circle to a chord bisects the chord and conversely, the line drawn through the center of a circle to bisect a chord is perpendicular to the chord.
3. (Motivate) Equal chords of a circle (or of congruent circles) are equidistant from the center (or their respective centers) and conversely.
4. (Prove) The angle subtended by an arc at the center is double the angle subtended by it at any point on the remaining part of the circle.
5. (Motivate) Angles in the same segment of a circle are equal.
6. (Motivate) If a line segment joining two points subtends equal angle at two other points lying on the same side of the line containing the segment, the four points lie on a circle.
7. (Motivate) The sum of either of the pair of the opposite angles of a cyclic quadrilateral is  $180^\circ$  and its converse.

### **UNIT V: MENSURATION**

#### **1. AREAS**

**(5) Periods**

Area of a triangle using Heron's formula (without proof)

#### **2. SURFACE AREAS AND VOLUMES**

**(17) Periods**

Surface areas and volumes of spheres (including hemispheres) and right circular cones.

## UNIT VI: STATISTICS

### STATISTICS

(15) Periods

Bar graphs, histograms (with varying base lengths), and frequency polygons.

### MATHEMATICS QUESTION PAPER DESIGN CLASS – IX (2023-24)

Time: 3 Hrs.

Max. Marks: 80

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	<b>Remembering:</b> Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. <b>Understanding:</b> Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	43	54
2	<b>Applying:</b> Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	24
3	<b>Analysing :</b> Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations  <b>Evaluating:</b> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.  <b>Creating:</b> Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	18	22
	<b>Total</b>	80	100

INTERNAL ASSESSMENT	20 MARKS
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks



## COURSE STRUCTURE CLASS -X

Units	Unit Name	Marks
I	NUMBER SYSTEMS	06
II	ALGEBRA	20
III	COORDINATE GEOMETRY	06
IV	GEOMETRY	15
V	TRIGONOMETRY	12
VI	MENSURATION	10
VII	STATISTICS & PROBABILITY	11
	Total	<b>80</b>

### UNIT I: NUMBER SYSTEMS

#### 1. REAL NUMBER

**(15) Periods**

Fundamental Theorem of Arithmetic - statements after reviewing work done earlier and after illustrating and motivating through examples, Proofs of irrationality of  $\sqrt{2}, \sqrt{3}, \sqrt{5}$

### UNIT II: ALGEBRA

#### 1. POLYNOMIALS

**(8) Periods**

Zeros of a polynomial. Relationship between zeros and coefficients of quadratic polynomials.

#### 2. PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

**(15) Periods**

Pair of linear equations in two variables and graphical method of their solution, consistency/inconsistency.

Algebraic conditions for number of solutions. Solution of a pair of linear equations in two variables algebraically - by substitution, by elimination. Simple situational problems.

#### 3. QUADRATIC EQUATIONS

**(15) Periods**

Standard form of a quadratic equation  $ax^2 + bx + c = 0$ , ( $a \neq 0$ ). Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between discriminant and nature of roots.

Situational problems based on quadratic equations related to day to day activities to be incorporated.

#### **4. ARITHMETIC PROGRESSIONS**

**(10) Periods**

Motivation for studying Arithmetic Progression Derivation of the  $n^{\text{th}}$  term and sum of the first  $n$  terms of A.P. and their application in solving daily life problems.

### **UNIT III: COORDINATE GEOMETRY**

#### **Coordinate Geometry**

**(15) Periods**

**Review:** Concepts of coordinate geometry, graphs of linear equations. Distance formula. Section formula (internal division).

### **UNIT IV: GEOMETRY**

#### **1. TRIANGLES**

**(15) Periods**

Definitions, examples, counter examples of similar triangles.

1. (Prove) If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio.
2. (Motivate) If a line divides two sides of a triangle in the same ratio, the line is parallel to the third side.
3. (Motivate) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar.
4. (Motivate) If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar.
5. (Motivate) If one angle of a triangle is equal to one angle of another triangle and the sides including these angles are proportional, the two triangles are similar.

#### **2. CIRCLES**

**(10) Periods**

Tangent to a circle at, point of contact

1. (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact.
2. (Prove) The lengths of tangents drawn from an external point to a circle are equal.

## **UNIT V: TRIGONOMETRY**

### **1. INTRODUCTION TO TRIGONOMETRY (10) Periods**

Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined); motivate the ratios whichever are defined at  $0^\circ$  and  $90^\circ$ . Values of the trigonometric ratios of  $30^\circ$ ,  $45^\circ$  and  $60^\circ$ . Relationships between the ratios.

### **2. TRIGONOMETRIC IDENTITIES (15) Periods**

Proof and applications of the identity  $\sin^2 A + \cos^2 A = 1$ . Only simple identities to be given.

### **3. HEIGHTS AND DISTANCES: Angle of elevation, Angle of Depression. (10)Periods**

Simple problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only  $30^\circ$ ,  $45^\circ$ , and  $60^\circ$ .

## **UNIT VI: MENSURATION**

### **1. AREAS RELATED TO CIRCLES (12) Periods**

Area of sectors and segments of a circle. Problems based on areas and perimeter / circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of  $60^\circ$ ,  $90^\circ$  and  $120^\circ$  only.

### **2. SURFACE AREAS AND VOLUMES (12) Periods**

Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones.

## **UNIT VII: STATISTICS AND PROBABILITY**

### **1. STATISTICS (18) Periods**

Mean, median and mode of grouped data (bimodal situation to be avoided).

### **2. PROBABILITY (10) Periods**

Classical definition of probability. Simple problems on finding the probability of an event.

**MATHEMATICS-Standard**  
**QUESTION PAPER DESIGN**  
**CLASS – X (2023-24)**

**Time: 3 Hours**

**Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	<b>Remembering:</b> Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.  <b>Understanding:</b> Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	43	54
2	<b>Applying:</b> Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	24
3	<b>Analysing :</b> Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations  <b>Evaluating:</b> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.  <b>Creating:</b> Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	18	22
	<b>Total</b>	80	100

<b>INTERNAL ASSESSMENT</b>	<b>20 MARKS</b>
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

**MATHEMATICS-Basic**  
**QUESTION PAPER DESIGN**  
**CLASS – X (2023-24)**

**Time: 3Hours**

**Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	<b>Remembering:</b> Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.  <b>Understanding:</b> Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	60	75
2	<b>Applying:</b> Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	12	15
3	<b>Analysing :</b> Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations <b>Evaluating:</b> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. <b>Creating:</b> Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	8	10
	<b>Total</b>	80	100

<b>INTERNAL ASSESSMENT</b>	<b>20 MARKS</b>
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

**PRESCRIBED BOOKS:**

1. Mathematics - Textbook for class IX - NCERT Publication
2. Mathematics - Textbook for class X - NCERT Publication
3. Guidelines for Mathematics Laboratory in Schools, class IX - CBSE Publication
4. Guidelines for Mathematics Laboratory in Schools, class X - CBSE Publication
5. Laboratory Manual - Mathematics, secondary stage - NCERT Publication
6. Mathematics exemplar problems for class IX, NCERT publication.
7. Mathematics exemplar problems for class X, NCERT publication.

## **SCIENCE**

**(Code No. 086)**

**Classes: IX and X (2023-24)**

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.

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 observations, drawing, tabulation, plotting graphs, etc., whereas the secondary stage also expects abstraction and quantitative reasoning to occupy a more central place in the teaching and learning of Science. Thus, the idea of atoms and molecules being the building blocks of matter makes its appearance, as does Newton's law of gravitation.

The present syllabus has been designed around seven broad themes viz. Food; Materials; The World of The Living; How Things Work; Moving Things, People and Ideas; Natural Phenomenon 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.

At this stage, while Science is still a common subject, the disciplines of Physics, Chemistry and Biology begin to emerge. The students should be exposed to experiences based on hands on activities as well as modes of reasoning that are typical of the subject.

### **General Instructions:**

1. There will be an Annual Examination based on the entire syllabus.
2. The Annual Examination will be of 80 marks and 20 marks weightage shall be for Internal Assessment.
3. For Internal Assessment:
  - a. There will be Periodic Assessment that would include:
    - For 5 marks- Three periodic tests conducted by the school. Average of the best two tests to be taken that will have a weightage of 05 marks towards the final result.
    - For 5 marks- Diverse methods of assessment as per the need of the class dynamics and curriculum transaction. These may include - short tests, oral test, quiz, concept maps, projects, posters, presentations and enquiry based scientific investigations etc. and use rubrics for arguing them objectively. This will also have a weightage of 05 marks towards the final result.
  - b. Practical / Laboratory work should be done throughout the year and the student should maintain record of the same. Practical Assessment should be continuous. There will be weightage of 5 marks towards the final result. All practicals listed in the syllabus must be completed.
  - c. Portfolio to be prepared by the student- This would include classwork and other sample of student work and will carry a weightage of 5 marks towards the final results.

## COURSE STRUCTURE

### CLASS IX

(Annual Examination)

Marks: 80

Unit No.	Unit	Marks
I	Matter - Its Nature and Behaviour	25
II	Organization in the Living World	22
III	Motion, Force and Work	27
IV	Food; Food Production	06
	<b>Total</b>	<b>80</b>
	<b>Internal assessment</b>	<b>20</b>
	<b>Grand Total</b>	<b>100</b>

#### Theme: Materials

##### Unit I: Matter-Nature and Behaviour

Definition of matter; solid, liquid and gas; characteristics - shape, volume, density; change of state- melting (absorption of heat), freezing, evaporation (cooling by evaporation), condensation, sublimation.

**Nature of matter:** Elements, compounds and mixtures. Heterogeneous and homogenous mixtures, colloids and suspensions. Physical and chemical changes (excluding separating the components of a mixture).

**Particle nature and their basic units:** Atoms and molecules, Law of Chemical Combination, Chemical formula of common compounds, Atomic and molecular masses.

**Structure of atoms:** Electrons, protons and neutrons, Valency, Atomic Number and Mass Number, Isotopes and Isobars.

#### Theme: The World of the Living

##### Unit II: Organization in the Living World

**Cell - Basic Unit of life :** Cell as a basic unit of life; prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, cell organelles and cell inclusions; chloroplast, mitochondria, vacuoles, endoplasmic reticulum, Golgi apparatus; nucleus, chromosomes - basic structure, number.

##### **Tissues, Organs, Organ System, Organism:**

Structure and functions of animal and plant tissues (only four types of tissues in animals; Meristematic and Permanent tissues in plants).

## **Theme: Moving Things, People and Ideas**

### **Unit III: Motion, Force and Work**

**Motion:** Distance and displacement, velocity; uniform and non-uniform motion along a straight line; acceleration, distance-time and velocity-time graphs for uniform motion and uniformly accelerated motion, elementary idea of uniform circular motion.

**Force and Newton's laws :** Force and Motion, Newton's Laws of Motion, Action and Reaction forces, Inertia of a body, Inertia and mass, Momentum, Force and Acceleration.

**Gravitation:** Gravitation; Universal Law of Gravitation, Force of Gravitation of the earth (gravity), Acceleration due to Gravity; Mass and Weight; Free fall.

**Floatation:** Thrust and Pressure. Archimedes' Principle; Buoyancy.

**Work, Energy and Power:** Work done by a Force, Energy, power; Kinetic and Potential energy; Law of conservation of energy (excluding commercial unit of Energy).

**Sound:** Nature of sound and its propagation in various media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo.

## **Theme: Food**

### **Unit IV: Food Production**

Plant and animal breeding and selection for quality improvement and management; Use of fertilizers and manures; Protection from pests and diseases; Organic farming.

#### **Note for the Teachers:**

1. The chapter Natural Resources (NCERT Chapter 14) will not be assessed in the year-end examination. However, learners may be assigned to read this chapter and encouraged to prepare a brief write up on any concept of this chapter in their Portfolio. This may be for Internal Assessment and credit may be given for Periodic Assessment/Portfolio.
2. The NCERT text books present information in boxes across the book. These help students to get conceptual clarity. However, the information in these boxes would not be assessed in the year-end examination.

## **PRACTICALS**

**Practicals should be conducted alongside the concepts taught in theory classes.**

### **(LIST OF EXPERIMENTS)**

#### **1. Preparation of:**

#### **Unit-I**

- a) a true solution of common salt, sugar and alum
- b) a suspension of soil, chalk powder and fine sand in water
- c) a colloidal solution of starch in water and egg albumin/milk in water and distinguish between these on the basis of



- transparency
- filtration criterion
- stability

- Preparation of **Unit-I**
  - A mixture
  - A compound

using iron filings and sulphur powder and distinguishing between these on the basis of:

  - appearance, i.e., homogeneity and heterogeneity
  - behaviour towards a magnet
  - behaviour towards carbon disulphide as a solvent
  - effect of heat
- Perform the following reactions and classify them as physical or chemical changes: **Unit-I**
  - Iron with copper sulphate solution in water
  - Burning of magnesium ribbon in air
  - Zinc with dilute sulphuric acid
  - Heating of copper sulphate crystals
  - Sodium sulphate with barium chloride in the form of their solutions in water
- Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams. **Unit-II**
- Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams. **Unit-II**
- Determination of the melting point of ice and the boiling point of water. **Unit-I**
- Verification of the Laws of reflection of sound. **Unit-III**
- Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder. **Unit-III**
- Establishing the relation between the loss in weight of a solid when fully immersed in **Unit-III**
  - Tap water
  - Strongly salty water with the weight of water displaced by it by taking at least two different solids.
- Determination of the speed of a pulse propagated through a stretched string/slinky (helical spring). **Unit-III**
- Verification of the law of conservation of mass in a chemical reaction. **Unit-III**

**COURSE STRUCTURE**  
**CLASS X**  
**(Annual Examination)**

**Marks: 80**

<b>Unit No.</b>	<b>Unit</b>	<b>Marks</b>
I	Chemical Substances-Nature and Behaviour	25
II	World of Living	25
III	Natural Phenomena	12
IV	Effects of Current	13
V	Natural Resources	05
	<b>Total</b>	<b>80</b>
	<b>Internal assessment</b>	<b>20</b>
	<b>Grand Total</b>	<b>100</b>

**Theme: Materials**

**Unit I: Chemical Substances - Nature and Behaviour**

**Chemical reactions:** Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation and reduction.

**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), importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris.

**Metals and nonmetals:** Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention.

**Carbon compounds:** 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), difference between saturated hydro carbons 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.

**Theme: The World of the Living**

**Unit II: World of Living**

**Life processes:** 'Living Being'. Basic concept of nutrition, respiration, transport and excretion in plants and animals.

**Control and co-ordination in animals and plants:** Tropic movements in plants; Introduction of plant hormones; Control and co-ordination in animals: Nervous system; Voluntary, involuntary and reflex action; Chemical co-ordination: animal hormones.

**Reproduction:** Reproduction in animals and plants (asexual and sexual) reproductive health - need and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women's health.

**Heredity and Evolution:** Heredity; Mendel's contribution- Laws for inheritance of traits: Sex determination: brief introduction: (topics excluded - evolution; evolution and classification and evolution should not be equated with progress).

### **Theme: Natural Phenomena**

#### **Unit III: Natural Phenomena**

Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), magnification. Refraction; Laws of refraction, refractive index.

Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivation not required); Magnification. Power of a lens.

Functioning of a lens in human eye, defects of vision and their corrections, applications of spherical mirrors and lenses.

Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life (excluding colour of the sun at sunrise and sunset).

### **Theme: How Things Work**

#### **Unit IV: Effects of Current**

Electric current, potential difference and electric current. Ohm's law; Resistance, Resistivity, Factors on which the resistance of a conductor depends. Series combination of resistors, parallel combination of resistors and its applications in daily life. Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R. **Magnetic effects of current** : Magnetic field, field lines, field due to a current carrying conductor, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's Left Hand Rule, Direct current. Alternating current: frequency of AC. Advantage of AC over DC. Domestic electric circuits.

### **Theme: Natural Resources**

#### **Unit V: Natural Resources**

**Our environment:** Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances.

### **Note for the Teachers:**

1. The chapter Management of Natural Resources (NCERT Chapter 16) will not be assessed in the year-end examination. However, learners may be assigned to read this chapter and encouraged to prepare a brief write up to any concept of this chapter in their Portfolio. This

may be for Internal Assessment and credit may be given Periodic Assessment/Portfolio).

2. The NCERT text books present information in boxes across the book. These help students to get conceptual clarity. However, the information in these boxes would not be assessed in the year-end examination.

## PRACTICALS

**Practical should be conducted alongside the concepts taught in theory classes.**

### LIST OF EXPERIMENTS

1. A. Finding the pH of the following samples by using pH paper/universal indicator: **Unit-I**
  - (i) Dilute Hydrochloric Acid
  - (ii) Dilute NaOH solution
  - (iii) Dilute Ethanoic Acid solution
  - (iv) Lemon juice
  - (v) Water
  - (vi) Dilute Hydrogen Carbonate solution

B. Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with: **Unit-I**

  - a) Litmus solution (Blue/Red)
  - b) Zinc metal
  - c) Solid sodium carbonate
2. Performing and observing the following reactions and classifying them into: **Unit-I**
  - A. Combination reaction
  - B. Decomposition reaction
  - C. Displacement reaction
  - D. Double displacement reaction
    - (i) Action of water on quicklime
    - (ii) Action of heat on ferrous sulphate crystals
    - (iii) Iron nails kept in copper sulphate solution
    - (iv) Reaction between sodium sulphate and barium chloride solutions
3. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions: **Unit-I**
  - i)  $\text{ZnSO}_4(\text{aq})$
  - ii)  $\text{FeSO}_4(\text{aq})$
  - iii)  $\text{CuSO}_4(\text{aq})$
  - iv)  $\text{Al}_2(\text{SO}_4)_3(\text{aq})$

Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.
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. **Unit-IV**
5. Determination of the equivalent resistance of two resistors when connected in series and parallel. **Unit-IV**
6. Preparing a temporary mount of a leaf peel to show stomata. **Unit- II**

- |     |  |                   |
|-----|--|-------------------|
| 7.  | Experimentally show that carbon dioxide is given out during respiration.   | <b>Unit-II</b>    |
| 8.  | Study of the following properties of acetic acid (ethanoic acid):  | <b>Unit- I</b>    |
|     | i) Odour   |                   |
|     | ii) solubility in water  |                   |
|     | iii) effect on litmus  |                   |
|     | iv) reaction with Sodium Hydrogen Carbonate  |                   |
| 9.  | Study of the comparative cleaning capacity of a sample of soap in soft and hard water.   | <b>Unit- I</b>    |
| 10. | Determination of the focal length of:  | <b>Unit-III</b>   |
|     | i) Concave mirror  |                   |
|     | ii) Convex lens  |                   |
|     | by obtaining the image of a distant object.  |                   |
| 11. | Tracing the path of a 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. | <b>Unit - III</b> |
| 12. | Studying (a) binary fission in <i>Amoeba</i> , and (b) budding in yeast and Hydra with the help of prepared slides.  | <b>Unit-II</b>    |
| 13. | Tracing the path of the rays of light through a glass prism.   | <b>Unit-III</b>   |
| 14. | Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).   | <b>Unit-II</b>    |

**PRESCRIBED BOOKS:**

- Science-Textbook for class IX-NCERT Publication
- Science-Text book for class X- NCERT Publication
- Assessment of Practical Skills in Science-Class IX - CBSE Publication
- Assessment of Practical Skills in Science- Class X- CBSE Publication
- Laboratory Manual-Science-Class IX, NCERT Publication
- Laboratory Manual-Science-Class X, NCERT Publication
- Exemplar Problems Class IX – NCERT Publication
- Exemplar Problems Class X – NCERT Publication

**Theory (80 marks)**

**Question Paper Design**

(Class X)

**Subject: Science**

<b>Competencies</b>	<b>Total</b>
Demonstrate Knowledge and Understanding	46 %
Application of Knowledge/Concepts	22 %
Formulate, Analyze, Evaluate and Create	32 %
	100%

**Note:**

- Typology of Questions: VSA including objective type questions, Assertion – Reasoning type questions; SA; LA; Source-based/ Case-based/ Passage-based/ Integrated assessment questions.
- An internal choice of approximately 33% would be provided.

**Internal Assessment (20 Marks)**

- **Periodic Assessment** - 05 marks + 05 marks
- **Subject Enrichment** (Practical Work) - 05 marks
- **Portfolio** - 05 marks

---

**Suggestive verbs for various competencies**

- **Demonstrate Knowledge and Understanding**
  - State, name, list, identify, define, suggest, describe, outline, summarize, etc.
- **Application of Knowledge/Concepts**
  - Calculate, illustrate, show, adapt, explain, distinguish, etc.
- **Formulate, Analyze, Evaluate and Create**
  - Interpret, analyze, compare, contrast, examine, evaluate, discuss, construct, etc.



वसुधैव कुटुम्बकम्  
ONE EARTH • ONE FAMILY • ONE FUTURE

# **CBSE SOCIAL SCIENCE SYLLABUS 2023-24 (Code No. 087) CLASS - IX & X**



S. NO.	TABLE OF CONTENT				PAGE NO.
1.	Rationale				2
2.	Learning Objectives				3
	CLASS IX	PAGE NO.	S. NO.	CLASS X	PAGE NO.
3.	Course Structure	4	8.	Course Structure	20
4.	Course Content	7	9.	Course Content	23
5.	List of map items	17	10.	List of map items	35
6.	Guidelines for internal assessments	18	11.	Question Paper Design	39
7.	Prescribed Text Books	19	12.	Guidelines for internal assessments	42
			13.	Prescribed Text Books	43
	ANNEXURES				
Annexure I (project work Class IX)		44	Annexure IV (Interdisciplinary project Class X)		52
Annexure II (Inter disciplinary project Class IX)		46	Annexure V (Presentation template for IDP)		58
Annexure III (Project work Class X)		50	Annexure VI Rubrics of IDP		59



## **RATIONALE**

Social Science is a compulsory subject up to secondary stage of school education. It is an integral component of general education because it helps the learners to understand the environment in its totality, contextualise its components, develop a broader perspective, adapt an empirical, reasonable and humane outlook to help 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.

Social Science subject helps students strengthen their knowledge of the world around them, enhance their critical thinking skills, deepen their cultural understanding, in still analytical and evaluation and synthesizing skills, improve research based learning skills, and enhance their creative abilities.

It enables the students to understand the interdependence of individual and community.

Makes students examine human behaviour from many different perspectives and help students learn to analyse human interaction based on social and cultural influences.

The Social Science curriculum draws its content mainly from History, Geography, Political Science and Economics. Some elements of Sociology and Commerce are also included. Together they provide a comprehensive view of society over space and time, and in relation to each other. Each subject's distinct methods of enquiry help the learners to understand society from different angles and form a holistic view. Developing knowledge in each of these subjects provides students with a broader and more comprehensive understanding of how individuals and societies function.

Through the study of History, students learn the significance of analysing historical events and using the past to evaluate modern trends and occurrences. Global History allows students to see the emergence of today's worldwide society, and enables the students to create projections on possible future outcomes of actions and events.

The discipline of Social Sciences broadens an individual's political awareness and deepens the understanding of political systems. Examining past and current political conflicts can let students understand human life on a different level.

## LEARNING OBJECTIVES

**The main objectives of this syllabus are to:**

- develop an understanding of the processes of change and development over a period of time, through which human societies have evolved.
- make learners infer that the process of change is continuous and any event or phenomenon or issue cannot be viewed in isolation but in a wider context of time and space.
- 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 in connection to world development
- deepen knowledge about and understanding of India's freedom struggle and of the values and ideals that it represented, and appreciate the contributions made by people of all sections and regions of the country.
- 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.
- deepen the knowledge and understanding of India's environment in its totality on people's life.
- facilitate the learners to understand and appreciate the diversity in the land and people of the country with its underlying unity.
- develop an appreciation of the richness and variety of India's heritage-both natural and cultural and the need for its preservation.
- promote an understanding of the issues and challenges of contemporary India- environmental, economic and social, as part of the development process.
- develop competencies, analytical skills/ critical thinking skills, creative skills help pupils acquire knowledge, skills and understanding to face the challenges of contemporary society as individuals and groups and learn the art of living a confident and stress-free life as well as participating effectively in the community.
- enable students to correlate the Social Science subjects through an interdisciplinary approach.
- explore their creativity and innovation through experiential and art integrated learning.
- develop scientific temperament by promoting the spirit of enquiry and following a rational and objective approach in analysing and evaluate data and information as well as views and interpretations.
- 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' problem .
- develop qualities clustered around the personal, social, moral, national and spiritual values that make a person humane and socially effective.

**CLASS IX**  
**COURSE STRUCTURE**

History (India and the Contemporary World - I)			Suggestive no. of periods = 60	20 inclusive of Map pointing
Section	Chapter No	Chapter Name	No. of Periods	Marks allocated
<b>I</b> <b>Events and Process</b>	<b>I</b>	The French Revolution	<b>15</b>	<b>18+2 map pointing</b>
	<b>II</b>	Socialism in Europe and the Russian Revolution	<b>15</b>	
	<b>III</b>	Nazism and the Rise of Hitler	<b>15</b>	
<b>II</b> <b>Livelihoods, Economies and Societies</b>	<b>IV</b>	Forest, Society and Colonialism <b>Interdisciplinary project as part of multiple assessments</b> (Internally assessed for 5 marks)	<b>5</b>	
	<b>V</b>	Pastoralists in the Modern World <b>(To be assessed as part of Periodic Assessment only)</b>	<b>10</b>	
Geography (Contemporary India - I)			Suggestive no. of periods = 55	20 inclusive of Map pointing
Chapter No	Chapter Name		No. of periods	Marks allocated
<b>1</b>	India – Size and Location		<b>17</b>	

2	Physical Features of India		17+3 map pointing*
3	Drainage	10	
4	Climate	12	
5	Natural Vegetation and Wildlife (Only map pointing to be evaluated in the annual examination.)	3	
	Interdisciplinary project as part of multiple assessments (Internally assessed for 5 marks)	5	
6	Population	8	* Marks as mentioned above
Political Science (Democratic Politics - I)		Suggestive no. of periods = 50	20 Marks
Chapter No.	Chapter name	No. of Periods	Marks allocated
1	What is Democracy?	10	20
	Why Democracy?		
2	Constitutional Design	10	
3	Electoral Politics	8	
4	Working of Institutions	12	
5	Democratic Rights	10	

Economics		Suggestive no. of periods = 50	20 Marks
Chapter No.	Name of the Chapter	No. of Periods	Marks allocated
1	The Story of Village Palampur (To be assessed as part of Periodic Assessment only)	10	
2	People as Resource	10	20
3	Poverty as a Challenge	15	
4	Food Security in India	15	

**CLASS IX**  
**COURSE CONTENT**

History: India and the Contemporary World - I			
Chapter No. and Name	Specific Learning Objectives	Suggestive Teaching Learning Process	Learning Outcome With Specific Competencies
I  <b>The French Revolution</b>	<ul style="list-style-type: none"> <li>Compare &amp; contrast the conditions that prevailed in France with the situations prevailed in India pre 1857 war.</li> <li>Critically examine the need of voting rights of Common people in France which laid the foundation of future Democracies.</li> <li>Examine various solutions to address imbalances that may lead to revolutions.</li> </ul>	<ul style="list-style-type: none"> <li>Class room discussions to compare and contrast the conditions that prevailed in France that led to revolution with the conditions that led to the first war of Indian Independence. (1857).</li> <li>Graphic Organisers to critically examine the situations that made the raise in demand of voting rights by passive citizens as well as women</li> <li>Debates to propose solutions to address such imbalances and discriminations that lead to revolutions</li> <li>Inquiry based learning to appraise the impact of the French revolution on the world. Conclude with group Presentations</li> </ul>	<ul style="list-style-type: none"> <li>Compare and contrast the conditions that prevailed in France that led to revolution with the conditions that led to the first war of Indian Independence. (1857).</li> <li>Critically Examine the situations that made the raise in demand of voting rights by passive citizens as well as women</li> <li>Propose solutions to address such imbalances and discriminations that lead to revolutions</li> <li>Appraise the impact of the French revolution on the world.</li> </ul>
II  <b>Socialism in Europe and</b>	<ul style="list-style-type: none"> <li>Analyse the situations that led to the rise of Russian and French revolutions.</li> </ul>	<ul style="list-style-type: none"> <li><b>Interactive Textual interpretations</b> to compare and contrast the situations that led to the rise of Russia &amp; French Revolutions</li> </ul>	<ul style="list-style-type: none"> <li>To compare and contrast the situations that led to the rise of Russian&amp; French Revolutions.</li> </ul>

<b>the Russian Revolution</b>	<ul style="list-style-type: none"> <li>Evaluate the reasons that led to the rise of Lenin's communism and Marxist Socialism</li> </ul>	<ul style="list-style-type: none"> <li><b>Student led seminar</b> to cite the impact of Collaboration and communication rendered by the philosophers and leaders in creating awareness amongst the common people</li> <li><b>World café' strategy</b> to evaluate the situations that enabled Lenin's Communism.</li> <li><b>Socratic Discussions</b> to Interpret the different ideas of philosophers and leaders that shaped the revolution</li> </ul>	<ul style="list-style-type: none"> <li>Cite the impact of Collaboration and communication rendered by the philosophers and leaders in creating awareness amongst the common people</li> <li>Evaluate the situations that enabled Lenin's Communism.</li> <li>Interpret the different ideas of philosophers and leaders that shaped the revolution.</li> </ul>
<b>III Nazism and the Rise of Hitler</b>	<ul style="list-style-type: none"> <li>Analyse the manipulated control of situations led by an individual.</li> <li>Analyse the role of the "Treaty of Versailles in that led to the rise of Hitler.</li> <li>Examine the circumstances that led to the rise and fall of Hitler</li> <li>Discuss the critical significance of Nazism in shaping the politics of the modern world.</li> <li>Appraise the war compensation compelled on Germany in the name of the "treaty of Versailles led to the rise of Hitler</li> </ul>	<ul style="list-style-type: none"> <li><b>Watch Video</b> clipping from the last days of Adolf Hitler and discuss the reasons for rise and fall of Hitler</li> <li><b>Dramatize</b> the Nazi Propaganda/ racial discrimination against Jews</li> <li><b>Cartoon interpretation/</b> Image interpretation</li> <li><b>Read</b> passages from "Dairy of Anne frank "and other related literature and discuss the impact of Nazism</li> <li><b>Jig saw strategy</b> to critique the genocidal war waged against Jews by the Nazis</li> </ul>	<ul style="list-style-type: none"> <li>Cite the events that helped Hitler's rise to power</li> <li>Evaluate various character traits of Hitler</li> <li>Compare and contrast the characteristics of Bismarck and Hitler</li> <li>Analyse the role of "Treaty of Versailles in the rise of Nazism and Hitler</li> <li>Critique the genocidal war waged against Jews by the Nazis.</li> </ul>

	<ul style="list-style-type: none"> <li>Compare and contrast the Nazi ideology with fascism of Mussolini</li> </ul>		<ul style="list-style-type: none"> <li>Discuss the critical significance of Nazism in shaping the politics of modern world.</li> </ul>
<b>IV</b>  <b>Forest, Society and Colonialism</b>	<b>Inter Disciplinary Project</b> with Chapter 5 of Geography "Natural Vegetation and Wild Life"	<ul style="list-style-type: none"> <li>Refer Annexure II</li> </ul>	<ul style="list-style-type: none"> <li>Refer Annexure II</li> </ul>
<b>V</b>  <b>Pastoralists in the Modern World</b>	<ul style="list-style-type: none"> <li>Analyse the situations that have created Nomadic society</li> <li>Draw comparisons of African pastoralists and Indian Pastoralists during colonial rule.</li> <li>Examine the how the colonial laws impacted livelihood in pastoral communities</li> <li>Appraise the contribution of Pastoralists in the modern economy.</li> </ul>	<ul style="list-style-type: none"> <li>T charts and similar graphic organizers to compare and contrast the lives of Pastoralists pre &amp; post colonialism.</li> <li>Art integration to depict the evolution of nomadic society.</li> <li>Research based presentations using resources provided to compare and contrast the lives and the reasons for poverty of pastoral nomads of India with African Pastoral Nomadic tribes.</li> <li>Think- Pair- Share and summarize the reading of resources to analyse and infer varying patterns of developments within pastoral societies in different places in India.</li> </ul>	<ul style="list-style-type: none"> <li>Compare and contrast the lives of Pastoralists pre &amp; post colonialism</li> <li>Analyse the situations that have created Nomadic society</li> <li>Compare and contrast the lives and the reasons for poverty of pastoral nomads of India with African Pastoral Nomadic tribes.</li> <li>Analyse and infer varying patterns of developments within pastoral societies in different places in India.</li> <li>Analyse the impact of colonialism on forest societies leading to scientific forestry.</li> <li>Enumerate the different processes through which transformation of livelihood occur in the modern world.</li> </ul>



Political Science: Democratic Politics - I			
Chapter No. and Name	Specific Learning Objectives	Suggested Teaching Learning Process	Learning Outcome With Specific Competencies
<b>1</b>  <b>What is Democracy? Why Democracy?</b>	<ul style="list-style-type: none"> <li>Examine the concept /structural components of Democracy and its forms/ features in different countries</li> <li>Examine and analyse the working structure of the governments of India and North Korea</li> <li>Analyse and infer on the different historical processes and forces that have contributed for the promotion of democracy.</li> </ul>	<ul style="list-style-type: none"> <li>World café and Café conversations strategies for introduction of concepts of Democracy &amp; features of Democracy</li> <li>4 corners strategy to discuss “What &amp; why of democracy?”</li> <li>students create democratic governance model in the class.</li> <li>Cartoon interpretation to summarize the benefits of democracy.</li> </ul>	<ul style="list-style-type: none"> <li>Compare and Contrast working of democracies of India and North Korea and infer on their differences and significance in each country.</li> <li>Define Democracy and enumerate its features.</li> <li>Evaluate the authenticity of the voting rights of the Indian population versus the population of Iran.</li> <li>Interpret the statement “Democracy provides a method to deal with differences and conflicts” with reference to India.</li> <li>Summarize the features and benefits of democracy</li> </ul>
<b>2</b>  <b>Constitutional Design</b>	<ul style="list-style-type: none"> <li>Comprehend the purpose of constitution.</li> <li>Enumerate the essential features that need to be kept in mind while drafting any constitution.</li> <li>Examine the guiding values that created the Indian constitution.</li> <li>Comprehend the roles and responsibilities as citizens of India.</li> </ul>	<ul style="list-style-type: none"> <li>Group Discussion to comprehend the purpose of constitution</li> <li>Poster making/ wall magazine for Comparing and contrasting between Preamble of South African constitution with the preamble of Indian constitution</li> <li>Role play strategy for creation of Indian constitution</li> <li>Declamation strategy for roles and responsibilities of citizens</li> </ul>	<ul style="list-style-type: none"> <li>Analyse the difference between written or unwritten constitutions with reference to India and USA.</li> <li>Describe the situation that led to creation of Indian Constitution.</li> <li>Compare and contrast between Preamble of South African constitution with the preamble of Indian constitution.</li> <li>Enumerate the roles and responsibilities as citizens of India</li> </ul>

<p><b>3</b></p> <p><b>Electoral Politics</b></p>	<ul style="list-style-type: none"> <li>• Comprehend the concept and system of elections.</li> <li>• Evaluate the conditions that make Elections in India democratic.</li> <li>• Analyse the implications of power of vote and power of recall.</li> <li>• Appraise the role of election commission for the conduct of free and fair elections.</li> </ul>	<ul style="list-style-type: none"> <li>• Role play/ have school council elections.</li> <li>• Design and present election manifesto</li> <li>• Create multiple parties and create symbols for elections</li> <li>• Use street play to create awareness about the right to vote.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate the role of political parties to adhere to electoral promises.</li> <li>• Create a solution for eradication of malpractices in elections</li> <li>• Differentiate between representative democracy and competitive party politics.</li> <li>• Summarize the essential features of the Indian Electoral system.</li> <li>• Examine the rationale for adopting the present Indian Electoral System.</li> </ul>
<p><b>4</b></p> <p><b>Working of Institutions</b></p>	<ul style="list-style-type: none"> <li>• Examine the roles, responsibilities and interdependency of all the 3 organs of the Government.</li> <li>• Examine the rule of law in India and its relevance</li> <li>• Understand the power and working of Indian Judiciary system and comprehend the hierarchy system of the judiciary in India.</li> </ul>	<ul style="list-style-type: none"> <li>• Watch videos of Parliament and discuss the importance of question hour</li> <li>• Present Moot court to evaluate the rule of Law</li> <li>• Examine the relevant case studies to evaluate the rule of law</li> <li>• Present Mock Parliament session to convert a bill into law</li> <li>• Conduct a mock interview with a parliamentarian</li> <li>• Role play on features of the political and permanent executive</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse and infer how the three organs are interdependent and independent to execute their roles</li> <li>• Summarize and evaluate the rule of law in India.</li> <li>• Represent the role of Parliament and its procedures.</li> <li>• Distinguish between political and permanent executive authorities and functions.</li> <li>• Understand the parliamentary system of executive's accountability to the legislature.</li> <li>• Understand the working of Indian Judiciary.</li> </ul>
<p><b>5</b></p>	<ul style="list-style-type: none"> <li>• Comprehend what it is to be a responsible citizen while</li> </ul>	<ul style="list-style-type: none"> <li>• Declamation on need to have rights and the importance of performing duties.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse the need of having rights and categorize the rights.</li> </ul>

<b>Democratic Rights</b>	<p>performing their prescribed duties versus claiming rights</p> <ul style="list-style-type: none"> <li>Evaluate the role of rights in Democracy.</li> </ul>	<ul style="list-style-type: none"> <li>Debate the need to have rights in the light of study of Saudi Arabia.</li> <li>Case study to analyse the role of citizens when the rights are exercised or otherwise.</li> <li>6 thinking hats to discuss the current issues.</li> <li>Organize a moot court to discuss the violation of individual rights.</li> <li>Graphic organizer to summarize the coexistence of <i>rights vs duties</i></li> </ul>	<ul style="list-style-type: none"> <li>Evaluate the statement “Democracy is meaningless without rights”</li> <li>Analyse their role as responsible citizens.</li> <li>Summarize the flipped coexistence of rights versus duties</li> <li>Apply the process available to citizens for safeguarding rights.</li> </ul>
--------------------------	--	--	--

### Geography: Contemporary India - I

Chapter No. and Name	Specific Learning Objectives	Suggested Teaching Learning Process	Learning Outcome With Specific Competencies
<b>1</b> <b>India - Size and Location</b>	<ul style="list-style-type: none"> <li>Examine how the location of an area impacts its climate and time with reference to longitude and latitude.</li> <li>Explore and analyze the trading and cultural relationships of India with its neighboring countries.</li> <li>Evaluate the situation &amp; reasons that made 82.5E* longitude as Time meridian of India.</li> <li>Examine how location of India enables its position as a</li> </ul>	<ul style="list-style-type: none"> <li>Use GeoGebra, Google earth to represent and justify the reasons for the differences in climatic conditions, local and standard time.</li> <li>Carousel brainstorming strategy for inferring conditions and relationships of the people living in states that are sharing border with the neighbouring countries impact trade and culture. (Link for Carousel Brain storming Strategy <a href="https://www.youtube.com/watch?v=zZxaS7v1-jo">https://www.youtube.com/watch?v=zZxaS7v1-jo</a>)</li> <li>On map of India hypothetically design two to four alternate</li> </ul>	<ul style="list-style-type: none"> <li>Justify the reasons for the differences in climatic conditions, local and standard time.</li> <li>To Infer how the conditions and relationships of the people living in states that are sharing border with the neighbouring countries impact trade and culture.</li> <li>Justify the selection of 82.5E* longitude as Time meridian of India. (IST)</li> <li>Critically analyse the role of opening of Suez Canal in improvement of foreign trade.</li> </ul>

	<p>strategic partner in the subcontinent.</p>	<p>longitudes on either side of 82.5°E and conclude on the selection</p> <ul style="list-style-type: none"> <li>• Draw out the rationale/ reasons behind fixing (82.5E) as a time meridian for India</li> <li>• PPT presentation to present alternate solutions.</li> </ul>	<ul style="list-style-type: none"> <li>• Propose alternative solution for the problems that arise due to the size &amp; location.</li> </ul>
<p><b>2</b></p> <p><b>Physical Features of India</b></p>	<ul style="list-style-type: none"> <li>• Justify why India is a sub-continent</li> <li>• Examine the geological process that played a crucial role in the formation of diverse physical features in India</li> <li>• Analyse the conditions and relationships of the people living in different physiographic areas.</li> <li>• Examine various environmental issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Use Art integrated strategies like gallery walk/Model making to demonstrate how physical features make India a sub-continent.</li> <li>• Role play to depict the lives and relationships amongst physiographic areas.</li> <li>• Collaborative brainstorming and presentation using different modes such as flipped books, Journals, Collage and other suitable presentations.</li> </ul>	<ul style="list-style-type: none"> <li>• Conclude why India is a subcontinent based on study of different physical features.</li> <li>• Analyse the conditions and relationships of the people living in different physiographic areas.</li> <li>• Enumerate the different environmental issues in India and propose solutions for these issues.</li> </ul>
<p><b>3</b></p> <p><b>Drainage</b></p>	<ul style="list-style-type: none"> <li>• Justify the statement that the rivers are lifeline of economy with reference to India.</li> <li>• Examine the information about different lakes and infer on their contribution to Indian ecology</li> </ul>	<ul style="list-style-type: none"> <li>• Choice Board strategy where each group to take up one river and focus on the areas they serve and the impact on Economy of that area.</li> <li>• Students will prepare a PPT on lakes.</li> <li>• Street play strategy/ poster making/ save River songs/ to present</li> </ul>	<ul style="list-style-type: none"> <li>• Enlist the different rivers, the areas they serve and their impact on the economy of That area.</li> <li>• Enumerate the different lakes and describe their contribution to the Indian ecology.</li> <li>• Present creative solutions to overcome the water pollution also</li> </ul>

	<ul style="list-style-type: none"> <li>Distinguish between the rivers of north and south India</li> <li>Analyse the flow of different rivers of India to infer on their impact on livelihood.</li> </ul>	awareness on water pollution and suggest solutions.	to increase the contribution of water bodies to Indian economy <ul style="list-style-type: none"> <li>Identify the river systems of the country and explain the role of rivers in human society.</li> </ul>
<b>4 Climate</b>	<ul style="list-style-type: none"> <li>Examine and analyse the factors that determine the climate of India</li> <li>Discuss the mechanisms of monsoons in Indian subcontinent.</li> <li>Analyse and infer the reasons behind the wide difference between day and night temperatures at different geographical locations of India.</li> <li>To interpret how monsoon acts as a Unifying bond</li> </ul>	<ul style="list-style-type: none"> <li>Collect and Read the Weather reports and have a class room discussion to conclude about the factors controlling climate</li> <li>Watch videos and summarize the findings</li> <li>Use Mind map/ graphic organizers to Enumerate and summarize the reasons for the wide difference between the day and night temperatures at different geographical locations of India</li> <li>Read Newspapers, prepare and present mock drills on protocols as preventive action for various disasters</li> </ul>	<ul style="list-style-type: none"> <li>Infer how the factors determine the climate of India.</li> <li>Analyse and infer the effect of monsoon winds on rainfall of the Indian subcontinent.</li> <li>Analyse the temperatures between plateau region, Himalayan region, desert region and coastal region.</li> <li>Enumerate and summarize the reasons for the wide difference between temperatures at different geographical locations of India</li> <li>Propose protocols as preventive action for various disasters</li> </ul>
<b>5 Natural Vegetation and Wild life</b>	<b>Inter disciplinary project</b> with chapter no IV of History “Forest, Society and Colonialism”	Refer annexure II	Refer annexure II
<b>6 Population</b>	<ul style="list-style-type: none"> <li>Examine the reasons behind the uneven distribution of population in India with specification to UP &amp;</li> </ul>	<ul style="list-style-type: none"> <li>Research based learning/ art integration strategy (4 grid analysis) to analyse and infer the reasons behind the uneven distribution of</li> </ul>	<ul style="list-style-type: none"> <li>Analyse and infer the reasons behind the uneven distribution of population in India with specification</li> </ul>

	Rajasthan and Mizoram and Karnataka.	population in India with specification to UP & Rajasthan and Mizoram and Karnataka	to UP & Rajasthan and Mizoram and Karnataka. • Enlist the factors that affect the population density.
<b>Economics</b>			
<b>Chapter No. and Name</b>	<b>Specific Learning Objectives</b>	<b>Suggested Teaching Learning Process</b>	<b>Learning Outcome with Specific Competencies</b>
<b>1</b> <b>The Story of Village Palampur</b>	<ul style="list-style-type: none"> <li>Evaluate the prevailing farming conditions in different states with reasons</li> <li>Examine the factors of production and interdependence of the requirements.</li> <li>Examine the contribution of non-farm activities to the economic growth of the village.</li> </ul>	<ul style="list-style-type: none"> <li>Visit a nearest village, interview a farmer/ visit local markets and interview farmers and present it in the class. (Experiential learning strategy)</li> <li>Poster making/ Concept map and gallery walk to enlist the requirements of production and summarize the interdependence of these requirements.</li> <li>Present a business plan for non-farm activities by using the four factors of production.</li> </ul>	<ul style="list-style-type: none"> <li>Analyse and infer how the prevailing farming conditions impact economic development of different states</li> <li>Enlist the requirements of production and summarize the interdependence of these requirements.</li> <li>Enlist non-farm activities and depict the link with economic growth.</li> </ul>
<b>2</b> <b>People as Resource</b>	<ul style="list-style-type: none"> <li>Examine the various factors that constitute the quality of population</li> <li>Analyse the role of government in improving the quality of population.</li> <li>Examine the factors that contribute to unemployment.</li> </ul>	<ul style="list-style-type: none"> <li>Case study on quality of population. (Class room discussion)</li> <li>Collect sources from Newspaper/ Media and present the findings in the form of a collage or an album</li> <li>Neighbourhood survey on employment /employability in neighbourhood, analyse the quality of neighbourhood and present in PPT format.</li> </ul>	<ul style="list-style-type: none"> <li>Analyse and infer the reasons that contribute to the quality of population</li> <li>Enumerate the different schemes of Government in some states and infer on the quality of people there by.</li> <li>Propose solutions to resolve unemployment problem</li> </ul>



<p><b>3</b></p> <p><b>Poverty as a Challenge</b></p>	<ul style="list-style-type: none"> <li>• Comprehend that poverty is a multifaceted concept inherent in the rural and urban conditions.</li> <li>• Examine the measures taken by the government to eradicate poverty.</li> </ul>	<ul style="list-style-type: none"> <li>• PPT presentation using case study given in NCERT text on the reasons of rural and urban poverty.</li> <li>• Declamation with data to Evaluate the efficacy of government to eradicate poverty</li> <li>• Debate whether education can remove poverty</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse and infer the reasons of poverty in the rural and urban areas.</li> <li>• Evaluate the efficacy of government to eradicate poverty.</li> <li>• Compare how poverty estimates have transformed from 1993-94 to 2011-12 Examine the link between education and poverty.</li> </ul>
<p><b>4</b></p> <p><b>Food Security in India</b></p>	<ul style="list-style-type: none"> <li>• Examine the critical role of food security for its masses.</li> <li>• Justify the rationale for the system of food security in India.</li> <li>• Appraise the contributory role of Public Distribution system to address FSI</li> <li>• Substantiate the role of green revolution in strengthening the PDS.</li> </ul>	<ul style="list-style-type: none"> <li>• Case study and group discussion to substantiate the link between a well-structured food security system and continuity of supply to masses.</li> <li>• Invite relevant Govt. officials to speak on FSI &amp; PDS.</li> </ul> <p>Panel discussion/ seminar on the impact of the green revolution and PDS.</p>	<ul style="list-style-type: none"> <li>• Enumerate various aspects of food security that will ensure continuity of supply to the masses.</li> <li>• Examine, analyse and infer various sources of data that point to the rationale of FSI</li> <li>• Enumerate different features of PDS that directly address FSI.</li> <li>• Analyse and infer the impact of Green revolution in strengthening the PDS.</li> </ul>

**CLASS IX**  
**LIST OF MAPS**

S. No.	Subject	Name of the Chapter	List of Areas to Be Map Pointed
<b>I</b>	<b>History</b>	French Revolution	Outline political map of France Locate/label/identify; <ul style="list-style-type: none"> <li>Bordeaux, Nantes, Paris and Marseille</li> </ul>
		Socialism in Europe	Outline political map of world locate/label/identify major countries of World War: central powers - Germany, Austria-Hungary, Turkey (Ottoman Empire) Allied Powers-France, England, Russia and USA
<b>II</b>	<b>Geography</b>	India: size & location	<ul style="list-style-type: none"> <li>India - States with Capitals</li> <li>Tropic of Cancer, Standard Meridian (Location and Labelling)</li> <li>Neighbouring countries</li> </ul>
		India physical features	<ul style="list-style-type: none"> <li>Mountain Ranges: The Karakoram, The Zasker, The Shivalik, The Aravali, The Vindhya, The Satpura, Western &amp; Eastern Ghats</li> <li>Mountain Peaks – K2, Kanchan Junga, Anai Mudi</li> <li>Plateau - Deccan Plateau, Chota Nagpur Plateau, Malwa Plateau</li> <li>Coastal Plains - Konkan, Malabar, Coromandel &amp; Northern Circar (Location and Labelling)</li> </ul>
		Drainage system	<b>Rivers: (Identification only)</b> <ul style="list-style-type: none"> <li>The Himalayan River Systems-The Indus, The Ganges, and The Sutlej</li> <li>The Peninsular Rivers-The Narmada, The Tapi, The Kaveri, The Krishna, The Godavari, The Mahanadi</li> <li>Lakes: Wular, Pulicat, Sambhar, Chilika</li> </ul>
		Climate	<ul style="list-style-type: none"> <li>Annual rainfall in India, Monsoon wind directions</li> </ul>
		Population	<ul style="list-style-type: none"> <li>Population density of all states</li> <li>The state having highest and lowest density of population</li> </ul>



**CLASS IX**  
**INTERNAL ASSESSMENT: 20 MARKS**

Type of Assessment	Description	Marks Allocated
Periodic Assessment	Pen Paper Test.	5
Multiple Assessment	Quiz, debate, role play, viva, group discussion, visual expression, interactive bulletin boards, gallery walks, exit cards, concept maps, peer assessment, Self-assessment etc. through Inter disciplinary project	5
Subject Enrichment Activity	Project work on Disaster Management	5
Portfolio	Classwork, work done (activities / assignments) reflections, narrations, journals, etc. Achievements of the student in the subject throughout the year Participation of the student in different activities like Heritage India quiz	5

**CLASS IX**  
**PRSECRIBED TEXT BOOKS**

S.No	Subject	Name of the Book	Publisher
1	History	India and the Contemporary World - I	NCERT
2	Political Science	Democratic Politics - I	NCERT
3	Geography	Contemporary India - I	NCERT
4	Economics	Economics	NCERT
5	Disaster Management	Together, towards a safer India - part II	CBSE

**Links for NCERT rationalised 2023-24 textbooks:**

- <https://ncert.nic.in/textbook.php?iess1=ps-6>
- <https://ncert.nic.in/textbook.php?iess2=0-4>
- <https://ncert.nic.in/textbook.php?iess3=0-5>
- <https://ncert.nic.in/textbook.php?iess4=ps-5>

**CLASS X**  
**COURSE STRUCTURE**

History (India and the Contemporary World - II)			Suggestive no. of periods = 60	20 inclusive of map pointing
Section	Chapter No.	Chapter name	No. of periods	Marks allocated
<b>I</b> <b>Events and processes</b>	<b>I</b>	The Rise of Nationalism in Europe	17	18 + 2 map pointing *
	<b>II</b>	Nationalism In India	17	
<b>II</b> <b>Livelihoods, Economies and Societies</b>	<b>III</b>	The Making of a Global World <b>(To be evaluated in the Board Examination - Subtopics:1 to 1.3 Pre Modern World to Conquest, Disease and Trade)</b>	6	
		<b>Interdisciplinary project as part of multiple assessments</b> (Internally assessed for 5 marks Sub topics 2 to 4.4 The nineteenth century (1815-1914) to end of Bretton Woods & the beginning of "Globalisation.")	4	
	<b>IV</b>	The Age of Industrialization <b>(To be assessed as part of Periodic Assessments only)</b>	6	
<b>III</b> <b>Everyday Life, Culture and Politics</b>	<b>V</b>	Print Culture and the Modern World	10	* Marks as mentioned above

Geography (Contemporary India - II)			Suggestive no. of periods = 55	20 inclusive of map pointing
Chapter No.	Chapter Name		No. of Periods	Marks allocated
1	Resources and Development		7	17 + 3 map pointing
2	Forest and Wildlife Resources		7	
3	Water Resources		7	
4	Agriculture		10	
5	Minerals and Energy Resources		10	
6	Manufacturing Industries		10	
7	Lifelines of National Economy <b>Only map pointing to be evaluated in the Board Examination</b>		2	
	Interdisciplinary project as part of multiple assessments (Internally assessed for 5 marks)		2	
Political Science (Democratic Politics - II)			Suggestive no. of periods = 50	20
Unit no	Chapter No	Chapter Name	No. of Periods	Marks allocated
I	1	Power - sharing	15	
	2	Federalism		

II	3	Gender, Religion and Caste	12	20
III	4	Political Parties	12	
IV	5	Outcomes of Democracy	11	
<b>Economics (Understanding Economic Development)</b>			<b>Suggestive no. of periods = 50</b>	<b>20</b>
<b>Chapter No.</b>	<b>Chapter name</b>		<b>No. of Periods</b>	<b>Marks allocated</b>
1	Development		12	20
2	Sectors of the Indian Economy		12	
3	Money and Credit		12	
4	Globalisation and The Indian Economy <b>To be evaluated in the Board Examination:</b> <ul style="list-style-type: none"> <li>• What is Globalization?</li> <li>• Factors that have enabled Globalisation</li> </ul>		8	
	<b>Interdisciplinary project as part of multiple assessments</b> (Internally assessed for 5 marks) <ul style="list-style-type: none"> <li>• Production across the countries</li> <li>• Chinese toys in India</li> <li>• World Trade Organisation</li> <li>• The Struggle for a Fair Globalisation</li> </ul>		6	
5	Consumer Rights <b>(Project Work)</b>			

**CLASS X**  
**COURSE CONTENT**

History: India and the Contemporary World - II			
Chapter No. and Name	Specific Learning Objectives	Suggested Teaching Learning Process	Learning Outcome with Specific Competencies
<b>I</b> <b>The Rise of Nationalism in Europe</b>	<ul style="list-style-type: none"> <li>Examine the impact of the French Revolution on the European countries in the making of the Nation state.</li> <li>Explore the nature of the diverse social movements of the time. (1830-1848)</li> <li>Examine the ways by which the idea of nationalism emerged and led to the formation of nation states.</li> <li>Comprehend how the World War I was triggered by the scramble for colonies in the Balkan states</li> </ul>	<ul style="list-style-type: none"> <li>Watch Videos/ read Textual materials/ read related novels on the French revolution followed by a Class room discussion and presentation.</li> <li>World café/ Panel discussion/ debate using Collaborative learning, to explore the diverse social groups and present it as a group.</li> <li>Use of graphic organizers to explain the idea of unification of states to form one nation. (Italy/ Germany/ Greece)</li> <li>Visual representation of the map of Pre-First World War Europe followed by the Class discussion and reflection activity based on the map of Post First World War Europe</li> </ul>	<ul style="list-style-type: none"> <li>Infer how the French Revolution had an impact on the European countries in the making of nation state.</li> <li>Enumerate and evaluate the validity of the nature of the diverse social movements of the time</li> <li>Analyse and infer how the idea of nationalism emerged and led to the formation of nation states in Europe and elsewhere.</li> <li>Illustrate that ,the quest for imperialism triggered the First World War.</li> </ul>
<b>II</b>	<ul style="list-style-type: none"> <li>Explore various facets of Nationalistic movements that ushered in the sense of Collective Belonging</li> </ul>	<ul style="list-style-type: none"> <li>Sequence chart/ story Board/ Story telling pedagogy to Illustrate various facets of Nationalistic movements that ushered in the sense of Collective Belonging</li> </ul>	<ul style="list-style-type: none"> <li>Illustrate various facets of Nationalistic movements that ushered in the sense of Collective Belonging</li> </ul>

<b>Nationalism in India</b>	<ul style="list-style-type: none"> <li>Discuss the impact of the first world war on triggering two defining movements (Khilafat &amp; Non-cooperation Movement) in India.</li> <li>Assess/ appraise the role of Mahatma Gandhi and other leaders in the two movements (NCM &amp; CDM)</li> </ul>	<ul style="list-style-type: none"> <li>Students will examine textual content and other references and Present through PPT.</li> <li>Viewing the relevant Snippets from the movies/ video clippings depicting various events involving Gandhiji and other leaders and present findings through a panel discussion or seminars.</li> </ul>	<ul style="list-style-type: none"> <li>Summarize the aspects of the First World War that triggered two defining movements (Khilafat &amp; Non-cooperation Movement) in India</li> <li>Evaluate the effectiveness of the strategies applied by Gandhiji and other leaders in the Two movements.</li> </ul>
<p><b>III</b></p> <p><b>The Making of a Global World</b></p> <p><b>Sub topic 1</b> The pre modern world</p> <p><b>Sub topic 2</b> 19<sup>th</sup> century 1815 -1914</p> <p><b>Sub topic 3</b></p>	<ul style="list-style-type: none"> <li>Explore various aspects of how the world changed profoundly in the 19th century in terms of Economic, Political, Social, Cultural and technological areas.</li> <li>Analyse the destructive impact of colonialism on the economy and the livelihoods of colonised people.</li> </ul> <p><b>Inter disciplinary Project</b> with chapter 7 of Geography: Life lines of National Economy and chapter 4 of Economics:</p>	<ul style="list-style-type: none"> <li>Initiate an Inquiry based learning using world café' strategy and present your findings through café conversation strategy of each area (transformed the world in terms of economy, political, cultural and technological aspects.)</li> <li>Art integration and gallery walk to depict the interconnectedness.</li> <li>Students examine the photographic display/ new paper cutting that depict the destructive impact of colonialism on the livelihoods of colonised people and present their understandings in the form of Newsletter/ cartoon strips/ Inter Disciplinary Project</li> </ul> <p>Refer Annexure IV</p>	<ul style="list-style-type: none"> <li>Summarize the changes that transformed the world in terms of economy, political, cultural and technological areas.</li> <li>Depict the global interconnectedness from the Pre modern to the present day.</li> <li>Enumerate the destructive impact of colonialism on the livelihoods of colonised people</li> </ul> <p>Refer Annexure IV</p>

<p>The inter- war economy <b>Sub topic 4</b> Rebuilding of world economy: the post war era.</p>	<p>Globalization and the Indian Economy</p>		
<p><b>IV</b>  <b>The Age of Industrialisation</b></p>	<ul style="list-style-type: none"> <li>Examine economic, political, social features of Pre and Post Industrialization.</li> <li>Analyse the impact of Industrialisation in the colonies with specific focus on India.</li> </ul>	<ul style="list-style-type: none"> <li>Watch relevant Videos/ Visuals/ documentaries/ the movie clippings on features of Pre &amp; Post economic, political, social features of Pre and Post Industrialization</li> <li>Debate on the impact of Industrialisation in the colonies with specific focus on India.</li> </ul>	<ul style="list-style-type: none"> <li>Enumerate economic, political, social features of Pre and Post Industrialization.</li> <li>Analyse and infer how the industrialization impacted colonies with specific focus on India.</li> </ul>
<p><b>V</b>  <b>Print culture and the Modern World.</b></p>	<ul style="list-style-type: none"> <li>Examine the development of Print from its beginnings in East Asia to its expansion in Europe and India</li> <li>Analyse the impact of the spread of technology and consider how social life and culture changed with coming of print</li> </ul>	<ul style="list-style-type: none"> <li>Flow chart to depict the development of Print</li> <li>Declamation on the profound transformation of people due to the print revolution.</li> <li>Use of Venn diagram to compare the advantages of hand written books and the printed books</li> <li>Interpret and infer from pictures, cartoons, extracts from propaganda literature on important events and issues with focus on print culture.</li> </ul>	<ul style="list-style-type: none"> <li>Enumerate the development of Print from its beginnings in East Asia to its expansion in Europe and India.</li> <li>Comment on the statement that the print revolution was not just a way of producing book but profound transformation of people.</li> <li>Compare and contrast the old tradition of hand written manuscripts versus the print technology.</li> <li>Summarise the role of Print revolution and its impact on World &amp; India 's political, social and economic condition.</li> </ul>



**Political Science: Democratic Politics - II**

Chapter No. and Name	Specific Learning Objectives	Suggested Teaching Learning Process	Learning Outcome With Specific Competencies
<b>1</b> <b>Power - sharing</b>	<ul style="list-style-type: none"> <li>Examines and comprehends how democracies handle demands and need for power sharing.</li> <li>Analyse the Challenges faced by countries like Belgium and Sri Lanka ensuring effective power sharing</li> </ul>	<ul style="list-style-type: none"> <li>Read relevant Newspaper articles/ clippings on Power sharing and present the findings in the form of flow chart</li> <li>Discuss various forms of power-sharing</li> <li>Classroom discussion on challenges faced by Belgium &amp; Sri Lanka in ensuring effective power sharing</li> <li>Socratic discussion on Power Sharing Techniques used by India, Sri Lanka and Belgium</li> <li>Read Textual resource and other resources and present findings through graphic organizers</li> </ul>	<ul style="list-style-type: none"> <li>Enumerate the need for power sharing in democracy.</li> <li>Analyse and infer the challenges faced by Belgium and Sri Lanka in ensuring Power sharing.</li> <li>Compare and contrast the power sharing of India with Sri Lanka and Belgium</li> <li>Summarize the purpose of power sharing in preserving the unity and stability of a country.</li> </ul>
<b>2</b> <b>Federalism</b>	<ul style="list-style-type: none"> <li>Comprehend the theory and Practice of Federalism in India.</li> <li>Analyse the policies and politics that has strengthened federalism in practice.</li> </ul>	<ul style="list-style-type: none"> <li>Group discussion on the distribution of powers between Union and state Government and present the outcomes through presentations.</li> <li>Debate on policies and politics that strengthens Federalism in practice and present through mind map</li> </ul>	<ul style="list-style-type: none"> <li>Analyse and infer how federalism is being practised in India.</li> <li>Analyse and infer how the policies and politics that has strengthens federalism in practice.</li> </ul>
<b>3</b> <b>Gender, Religion and Caste</b>	<ul style="list-style-type: none"> <li>Examines the role and differences of Gender, religion and Caste in practicing Democracy in India.</li> <li>Analyses the different expressions based on these</li> </ul>	<ul style="list-style-type: none"> <li>Skit/ street play to enumerate how the differences in gender, religion and caste impact the practicing healthy or otherwise in a Democracy.</li> <li>Graphic method to Analyse and infer how different expressions based on</li> </ul>	<ul style="list-style-type: none"> <li>Enumerates how the differences in gender, religion and caste impact the practicing healthy or otherwise in a Democracy</li> <li>Analyses and infers how different expressions based on</li> </ul>

	differences are healthy or otherwise in a democracy	differences in Gender, Religion and Caste are healthy or unhealthy in a democracy.	the differences in Gender, Religion and Caste are healthy or unhealthy in a democracy
<b>4</b> <b>Political Parties</b>	<ul style="list-style-type: none"> <li>Examine the role, purpose and no. of Political Parties in Democracy</li> <li>Evaluates the contributions made by national and regional political parties in making or otherwise of Indian democracy.</li> </ul>	<ul style="list-style-type: none"> <li>Role play the role, purpose and no. of Political Parties in Democracy</li> <li>Reads newspapers, watches video clippings to justify the contributions /non contributions made by national and regional political parties in successful functioning of Indian democracy.</li> </ul>	<ul style="list-style-type: none"> <li>Enumerates the role, purpose, and no. of Political Parties in Democracy</li> <li>Justifies the contributions /non contributions made by national and regional political parties in successful functioning of Indian democracy.</li> </ul>
<b>5</b> <b>Outcomes of Democracy</b>	<ul style="list-style-type: none"> <li>Comprehends the expected and actual outcomes of democracy in view of quality of government, economic wellbeing, in equality, social differences, conflict, freedom and dignity.</li> <li>Analyses the reasons behind gap that occurs in conversion of expected outcomes into actual outcomes of democracy in various respects: quality of government, economic well-being, inequality, social differences and conflict and finally freedom and dignity</li> </ul>	<ul style="list-style-type: none"> <li>Graphic organizer to enumerates how a success of democracy depends on quality of government, economic wellbeing, in equality, social differences, conflict, freedom and dignity</li> <li>Case study to Analyses and infers why sometimes the gap occurs between expected outcome and actual outcome effects the success of Democracy.</li> </ul>	<ul style="list-style-type: none"> <li>Enumerates how a success of democracy depends on quality of government, economic wellbeing, in equality, social differences, conflict, freedom and dignity.</li> <li>Analyses and infers why sometimes the gap occurs between expected outcome and actual outcome effects the success of Democracy.</li> </ul>

### Geography: Contemporary India - II

Chapter No. and Name	Specific Learning Objectives	Suggested Teaching Learning Process	Learning Outcome with Specific Competencies
<b>1</b> <b>Resources and Development</b>	<ul style="list-style-type: none"> <li>Examine the significance, interdependence, utilization development need of Planning of resources in India.</li> <li>Summarise the rationale for development of resources</li> <li>Comprehends the reasons for non-optimal utilization of land in India.</li> <li>Analyse the need to conserve all the resources</li> <li>Examine the significant role for resource planning in the light of the present requirements in India</li> </ul>	<ul style="list-style-type: none"> <li>Brainstorming on how the resources are interdependent in nature and the need to develop them in India and present in the form of Venn diagram</li> <li>Use of maps, charts, and other tools to identify patterns and trends of land utilization</li> <li>Case study and debate on the topic “Is the development acting as an adversary for conservation” and present a report in the form of PPT.</li> </ul>	<ul style="list-style-type: none"> <li>Enumerates how the resources are interdependent, justify how planning is essential judicious utilization of resources and the need to develop them in India</li> <li>Infers the rationale for development of resources</li> <li>Analyse and evaluate data and information related to non-optimal land, utilization in India</li> <li>Appraise and infer the need to conserve all resources available in India suggest remedial measures for optimal utilization of underutilized resources</li> </ul>
<b>2</b> <b>Forest and Wildlife Resources</b>	<ul style="list-style-type: none"> <li>Examine the importance of conserving forests and wild life and their interdependency in maintaining the ecology for the sustainable development of India.</li> <li>Analyse the role of grazing and wood cutting in the development and degradation</li> </ul>	<ul style="list-style-type: none"> <li>Read newspaper articles/ watch videos on deforestation and need for conservation and through world café strategy present your findings.</li> <li>Debate how developmental works, grazing wood cutting have impacted on the survival or otherwise of the forests.</li> <li>Use art integration strategy to summarize and present the reasons for</li> </ul>	<ul style="list-style-type: none"> <li>Enumerate how conservation of forests and wildlife are interdependent in nature and in maintain the ecology of India.</li> <li>Analyse and infer how some of the developmental works, grazing wood cutting have impacted on the survival or otherwise of the forests.</li> </ul>

	<ul style="list-style-type: none"> <li>Comprehends the reasons for conservation of biodiversity in India under sustainable development.</li> </ul>	conservation of biodiversity in India under sustainable development.	<ul style="list-style-type: none"> <li>Summarizes the reasons for conservation of biodiversity in India under sustainable development.</li> </ul>
<b>3</b> <b>Water Resources</b>	<ul style="list-style-type: none"> <li>Examine the reasons for conservation of water resource in India.</li> <li>Analyse and infer how the Multipurpose projects are supporting the requirement of water in India.</li> </ul>	<ul style="list-style-type: none"> <li>Brainstorming session to discuss the scarcity of water and present through graphic organizers</li> <li>Prepare a PPT to Summarize the roles of Multipurpose projects in supporting the water requirement of India.</li> </ul>	<ul style="list-style-type: none"> <li>Enumerate why the water resource of India to be conserved.</li> <li>Summarize the roles of Multipurpose projects in supporting the water requirement of India.</li> </ul>
<b>4</b> <b>Agriculture</b>	<ul style="list-style-type: none"> <li>Examine the crucial role played by agriculture in our economy and society.</li> <li>Analyses the challenges faced by the farming community in India.</li> <li>Comprehends the various aspects of agriculture, including crop production, types of farming, modern agricultural practices, and the impact of agriculture on the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Discusses the challenges faced by farmers, such as low productivity, lack of modern technology, inadequate irrigation facilities, and post-harvest losses and presents the findings through PPT</li> <li>Reads Newspapers and panel discusses the challenges faced by the farming community in India</li> <li>Use of graphic organizers to distinguish the traditional and modern farming methods</li> </ul>	<ul style="list-style-type: none"> <li>Enumerate how agriculture plays a contributory role in Indian economy</li> <li>Analyses and infers the challenges faced by the farming community in India</li> <li>Identifies and summarizes various aspects of agriculture, including crop production, types of farming, modern agricultural practices, and the impact of agriculture on the environment.</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>Comprehends the formation of different types of minerals, location, their uses, importance for human life and the economy.</li> </ul>	<ul style="list-style-type: none"> <li>Usage of textual resource, mind maps, pie charts to Analyse and infer how different types of minerals are formed, where they are found, their uses, importance for human life and the economy</li> </ul>	<ul style="list-style-type: none"> <li>Analyses and infers how different types of minerals are formed, where they are found, their uses, importance for human life and the economy</li> </ul>

<b>Minerals and Energy Resources</b>	<ul style="list-style-type: none"> <li>Analyses the importance of minerals and natural resources for economic development of the country their distribution, and sustainable use.</li> <li>Distinguishes between the conventional and non-conventional sources of energy .</li> </ul>	<ul style="list-style-type: none"> <li>Use graphic organizers to Infer the resource distribution to real-world situations and proposes strategies for sustainable use of natural resources</li> <li>Use of flow chart to Differentiate between the conventional and non-conventional sources of energy</li> </ul>	<ul style="list-style-type: none"> <li>Infers the resource distribution to real-world situations and proposes strategies for sustainable use of natural resources</li> <li>Differentiates between the conventional and nonconventional sources of energy.</li> </ul>
<b>6 Manufacturing Industries</b>	<ul style="list-style-type: none"> <li>Distinguishes between various types of manufacturing industries based on their input materials, processes, and end products, and analyse their significance in the Indian economy.</li> <li>Examines the impact of manufacturing industries on the environment, and develop strategies for sustainable development of the manufacturing sector.</li> <li>Analyses the relation between the availability of raw material and location of the Industry</li> </ul>	<ul style="list-style-type: none"> <li>Use of flow chart to differentiate between various types of manufacturing industries based on their input materials, processes, and end products.</li> <li>Utilizes the textual information (data given through various maps/ graphs) to Enumerates the impact of manufacturing industries on the environment, and develop strategies for sustainable development of the manufacturing sector.</li> <li>Uses Case Studies to Infer the relation between availability of raw material and location of the Industry</li> </ul>	<ul style="list-style-type: none"> <li>Differentiates between various types of manufacturing industries based on their input materials, processes, and end products, and analyse their significance in the Indian economy.</li> <li>Enumerates the impact of manufacturing industries on the environment, and develop strategies for sustainable development of the manufacturing sector.</li> <li>Infers the relation between availability of raw material and location of the Industry</li> </ul>

<b>7</b> <b>Life Lines of National Economy</b>	<b>Inter disciplinary project</b> with chapter 3 of History: The making of a Global world and chapter 4 of Economics: Globalization and the Indian Economy	Refer Annexure IV	Refer Annexure IV
<b>Economics: Understanding Economic Development</b>			
<b>Chapter No. and Name</b>	<b>Specific Learning Objectives</b>	<b>Suggested Teaching Learning Process</b>	<b>Learning Outcome with Specific Competencies</b>
<b>1</b> <b>Development</b>	<ul style="list-style-type: none"> <li>Examine the significance of designing suitable developmental goals in shaping the nation.</li> <li>Examine the importance of per capita income and compare the per capita income of various countries to infer about reasons for the variance</li> <li>Analyse the HDI in relation to PCI.</li> <li>Examine the need for Sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>Hot seat strategy to enumerate different developmental Goals that helps in nation building</li> <li>Case study to analyse and infer how the per capita income depicts the economic condition of the nation.</li> <li>Graphic organizer to compare and contrast the relation between HDI and PCI</li> <li>Declamation to Analyses the multiple perspectives on the need development</li> </ul>	<ul style="list-style-type: none"> <li>Enumerate different and examine the different processes involved in setting developmental Goals that helps in nation building</li> <li>Analyse and infer how the per capita income depicts the economic condition of the nation.</li> <li>Evaluate the development goals that have been set for the nation by the Planning commission of India -with specific reference to their efficacy, implemental strategies, relevance to current requirements of the nation</li> <li>Compare and contrast how the per capita income of some countries and infer reasons for the variance</li> <li>Analyses the multiple perspectives on the need development.</li> </ul>



<p style="text-align: center;"><b>2</b></p> <p><b>Sectors of the Indian Economy</b></p>	<ul style="list-style-type: none"> <li>Analyse and evaluate the economic activities in different sectors and how they contribute to the overall growth and development of the Indian economy.</li> <li>Identify problems in different sectors and propose solutions based on their understanding of the sectors.</li> <li>Analyse the major employment generating sectors and observe the challenges faced in an effort to provide employment to all.</li> <li>Examines the role of Unorganised sector in impacting PCI currently and proposes suggestive steps to reduce the unorganised sector for more productive contributions to GDP</li> <li>Examine and infer the essential role of the Public and Private sectors the present trends of PPP and efficacy of the initiative</li> </ul>	<ul style="list-style-type: none"> <li>Data analyse various sectors and their contribution in GDP and NDP.</li> <li>Research based strategy to propose solutions to identified problems in different sectors based on their understanding.</li> <li>Read Newspaper articles and group discuss to Summarize how the organised and unorganised sectors are providing employment and the challenges faced by them</li> </ul>	<ul style="list-style-type: none"> <li>Analyses and infer how the economic activities in different sectors contribute to the overall growth and development of the Indian economy.</li> <li>Propose solutions to identified problems in different sectors based on their understanding</li> <li>Summarize how the organised and unorganised sectors are providing employment and the challenges faced by them</li> <li>Enumerates the role of unorganised sector in impacting PCI currently and proposes suggestive steps to reduce the unorganised sector for more productive contributions to GDP</li> <li>Enumerates and infer the essential role of the Public and Private sectors the present trends of PPP and efficacy of the initiative</li> </ul>
<p style="text-align: center;"><b>3</b></p> <p><b>Money and Credit</b></p>	<ul style="list-style-type: none"> <li>Examine money as a medium of exchange in all transactions of goods and services since ancient times to the present times.</li> </ul>	<ul style="list-style-type: none"> <li>Group discussion to Enumerate how money plays as a medium exchange in all transactions of goods and services since ancient times to the present times</li> </ul>	<ul style="list-style-type: none"> <li>Enumerate how money plays as a medium exchange in all transactions of goods and services since ancient times to the present times</li> </ul>

	<ul style="list-style-type: none"> <li>Analyse the different sources of credit</li> <li>Identify the significance and role of self-help groups in the betterment of the economic condition of rural people/women.</li> </ul>	<ul style="list-style-type: none"> <li>Case based study to Analyse and infer various sources of Credit</li> <li>Guest Speaker Programme (bank manager/ a self-help group member) to Summarizes the significance and role of self-help groups in the betterment of the economic condition of rural people/ women.</li> </ul>	<ul style="list-style-type: none"> <li>Analyse and infer various sources of Credit</li> <li>Summarizes the significance and role of self-help groups in the betterment of the economic condition of rural people/ women.</li> </ul>
<p><b>4</b></p> <p><b>Globalization and the Indian Economy</b></p> <p><b>Sub topics:</b></p> <p>What is Globalization?</p> <p>Factors that have enabled Globalisation</p> <p><b>Sub topics:</b></p> <p>Production across the countries</p>	<ul style="list-style-type: none"> <li>Examine the concept of globalization and its definition, evolution, and impact on the global economy.</li> <li>Explore the details of the key drivers of globalization and their role in shaping the global economic landscape in various countries</li> <li>Examines the significance of role of G20 and its significance in the light of India's present role</li> </ul> <p><b>Inter disciplinary Project</b> with chapter 3 of History: "The making of a Global World" and chapter 7 of Geography: "Lifelines of National Economy"</p>	<ul style="list-style-type: none"> <li>Watch videos on globalisation followed by an interactive group discussion to enumerate the concept of globalization and its definition, evolution, and impact on the global economy</li> <li><b>Read Textual and other resources</b> to analyse and infer the key drivers of globalization and their role in shaping the global economic landscape.</li> </ul> <p>Refer Annexure IV</p>	<ul style="list-style-type: none"> <li>Enumerate the concept of globalization and its definition, evolution, and impact on the global economy.</li> <li>Evaluate the key role of the key major drivers of globalization and their role in shaping the global economic landscape in various countries</li> <li>Enumerates the significance of role of G20 and its significance in the light of India's present role</li> </ul> <p>Refer Annexure IV</p>



Chinese toys in India World Trade Organisation The Struggle For A Fair Globalisation			
<b>5</b> <b>Consumer Rights</b> <b>OR</b> <b>Social Issues</b> <b>OR</b> <b>Sustainable Development</b>	<b>Project work</b>	Refer Annexure III	Refer Annexure III

**CLASS X**  
**LIST OF MAP ITEMS**

Subject	Name of the Chapter	List of areas to be pointed on the Map
History	Nationalism in India	<b>I. Congress sessions:</b> <ul style="list-style-type: none"> <li>• 1920 Calcutta</li> <li>• 1920 Nagpur.</li> <li>• 1927 Madras session,</li> </ul> <b>II. 3 Satyagraha movements:</b> <ul style="list-style-type: none"> <li>• Kheda</li> <li>• Champaran.</li> <li>• Ahmedabad mill workers</li> </ul> <b>III. Jallianwala Bagh</b> <b>IV. Dandi March</b>
Geography	Resources and Development	Identify: Major Soil Types
	Water Resources	<b>Locating and Labelling:</b> <ul style="list-style-type: none"> <li>• Salal</li> <li>• Bhakra Nangal</li> <li>• Tehri</li> <li>• Rana Pratap Sagar</li> <li>• Sardar Sarovar</li> <li>• Hirakud</li> <li>• Nagarjuna Sagar</li> <li>• Tungabhadra</li> </ul>
	Agriculture	<b>Identify:</b> <ul style="list-style-type: none"> <li>• Major areas of Rice and Wheat</li> </ul>

		<ul style="list-style-type: none"> <li>• Largest/ Major producer states of Sugarcane, Tea, Coffee, Rubber, Cotton and Jute</li> </ul>
	Minerals and Energy Resources	<p><b>Identify:</b></p> <p><b>a. Iron Ore mines</b></p> <ul style="list-style-type: none"> <li>• Mayurbhanj</li> <li>• Durg</li> <li>• Bailadila</li> <li>• Bellary</li> <li>• Kudremukh</li> </ul> <p><b>b. Coal Mines</b></p> <ul style="list-style-type: none"> <li>• Raniganj</li> <li>• Bokaro</li> <li>• Talcher</li> <li>• Neyveli</li> </ul> <p><b>c. Oil Fields</b></p> <ul style="list-style-type: none"> <li>• Digboi</li> <li>• Naharkatia</li> <li>• Mumbai High</li> <li>• Bassien</li> <li>• Kalol</li> <li>• Ankaleshwar</li> </ul> <p><b>Locate &amp; label: Power Plants</b></p> <p><b>a. Thermal</b></p> <ul style="list-style-type: none"> <li>• Namrup</li> <li>• Singrauli</li> <li>• Ramagundam</li> </ul>

		<b>b. Nuclear</b> <ul style="list-style-type: none"> <li>• Narora</li> <li>• Kakrapara</li> <li>• Tarapur</li> <li>• Kalpakkam</li> </ul>
	Manufacturing Industries	<b>I. Manufacturing Industries (Locating and Labelling only)</b> <ul style="list-style-type: none"> <li>• Cotton Textile Industries: a. Mumbai b. Indore c. Surat d. Kanpur e. Coimbatore</li> <li>• Iron and Steel Plants: a. Durgapur b. Bokaro c. Jamshedpur d. Bhilai e. Vijayanagar f. Salem</li> <li>• Software Technology Parks: a. Noida b. Gandhinagar c. Mumbai d. Pune e. Hyderabad, f. Bengaluru g. Chennai. h. Thiruvananthapuram</li> </ul>
	Lifelines of National Economy	<b>Locating and Labelling:</b> <b>a. Major sea ports</b> <ul style="list-style-type: none"> <li>• Kandla</li> <li>• Mumbai</li> <li>• Marmagao</li> <li>• New Mangalore</li> <li>• Kochi</li> <li>• Tuticorin</li> <li>• Chennai</li> <li>• Vishakhapatnam</li> <li>• Paradip</li> <li>• Haldia</li> </ul>

		<b>b. International Airports:</b> <ul style="list-style-type: none"> <li>• Amritsar (Raja Sansi - Sri Guru Ram Dass jee)</li> <li>• Delhi (Indira Gandhi)</li> <li>• Mumbai (Chhatrapati Shivaji)</li> <li>• Chennai (Meenam Bakkam)</li> <li>• Kolkata (Netaji Subhash Chandra Bose)</li> <li>• Hyderabad (Rajiv Gandhi)</li> </ul>
--	--	--

**Note: Items of Locating and Labelling may also be given for Identification.**

**CLASS X**  
**QUESTION PAPER DESIGN**

**Subject Wise Weightage**

Subject	Syllabus	Marks (80)	Percentage
History	<ul style="list-style-type: none"> <li>• The Rise of Nationalism in Europe.</li> <li>• Nationalism in India:</li> <li>• The Making of a Global World Sub topics1 to 1.3</li> <li>• Print Culture and the Modern World</li> <li>• Map pointing</li> </ul>	18+2	25%
Political Science	<ul style="list-style-type: none"> <li>• Power - sharing</li> <li>• Federalism</li> <li>• Gender, Religion and Caste</li> <li>• Political Parties</li> <li>• Outcomes of Democracy</li> </ul>	20	25%
Geography	<ul style="list-style-type: none"> <li>• Resources and Development</li> <li>• Forest and Wildlife Resources</li> <li>• Water Resources</li> <li>• Agriculture</li> <li>• Mineral&amp; Energy resources</li> <li>• Manufacturing industries.</li> <li>• Lifelines of National Economy(map pointing)</li> <li>• Map pointing</li> </ul>	17+3	25%
Economics	<ul style="list-style-type: none"> <li>• Development</li> <li>• Sectors of the Indian Economy</li> </ul>	20	25%

	<ul style="list-style-type: none"> <li>• Money and Credit</li> <li>• Globalization and The Indian Economy</li> </ul> Sub topics: <ul style="list-style-type: none"> <li>▪ What is Globalization?</li> <li>▪ Factors that have enabled Globalisation</li> </ul>		
--	--	--	--

### Weightage to Type of Questions

Type of Questions	Marks (80)	Percentage
<b>1 Mark MCQs (20x1)</b> (Inclusive Of Assertion, Reason, Differentiation & Stem)	<b>20</b>	<b>25%</b>
<b>2 Marks Narrative Questions (4x2)</b> (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	<b>8</b>	<b>10%</b>
<b>3 Marks Narrative Questions (5x3)</b> (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	<b>15</b>	<b>18.75%</b>
<b>4 MARKS Case Study Questions (3x4)</b> (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	<b>12</b>	<b>15%</b>
<b>5 Mark Narrative Questions (4x5)</b> (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	<b>20</b>	<b>25%</b>
<b>Map Pointing</b>	<b>5</b>	<b>6.25%</b>

### Weightage to Competency Levels

Sr. No.	Competencies	Marks (80)	Percentage
1	Remembering and Understanding: Exhibiting memory of previously learned material by recalling facts, terms, basic concepts, and answers; Demonstrating understanding of facts and ideas by organizing, translating, interpreting, giving descriptions and stating main ideas.	24	30%
2	Applying: Solving problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	11	13.25%
3	Formulating, Analysing, Evaluating and Creating: Examining and breaking information into parts by identifying motives or causes; Making inferences and finding evidence to support generalizations; Presenting and defending opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria; Compiling information together in a different way by combining elements in a new pattern or proposing alternative solutions.	40	50%
4	Map Skill	5	6.25%
<b>Total</b>		<b>80</b>	<b>100%</b>



## CLASS X

### GUIDELINES FOR INTERNAL ASSESSMENT: 20 MARKS

Type of Assessment	Description	Marks Allocated
Periodic Assessment	Pen Paper Test.	5
Multiple Assessment	Quiz, debate, role play, viva, group discussion, visual expression, interactive bulletin boards, gallery walks, exit cards, concept maps, peer assessment, Self-assessment etc. through Inter disciplinary project	5
Subject Enrichment Activity	Project Work on Consumer Rights OR Social Issues OR Sustainable Development	5
Portfolio	Classwork, Work done (activities/ assignments) reflections, narrations, journals, etc. Achievements of the student in the subject throughout the year Participation of the student in different activities like heritage India quiz	5

**CLASS X**  
**PRESCRIBED TEXTBOOKS**

Subject	Name of the Book	Publisher
History	India and the Contemporary World - II	NCERT
Political Science	Democratic Politics	NCERT
Geography	Contemporary India	NCERT
Economics	Understanding Economic Development	NCERT
Disaster Management	Together Towards a Safer India -Part III (A text book on Disaster Management)	CBSE
<a href="https://ncert.nic.in/learning_outcomes.pdf">learning_outcomes.pdf (ncert.nic.in)</a>		

**Links for NCERT rationalised 2023-24 textbooks:**

- <https://ncert.nic.in/textbook.php?jess1=0-7>
- <https://ncert.nic.in/textbook.php?jess2=0-5>
- <https://ncert.nic.in/textbook.php?jess3=0-5>
- <https://ncert.nic.in/textbook.php?jess4=ps-5>

## ANNEXURE I

### Project Work: Class IX

Project work	10 periods
<p>Every student has to compulsorily undertake one project on <b>Disaster Management</b></p> <p><b>Objectives:</b> The main objectives of giving project work on Disaster Management to the students are to:</p> <ul style="list-style-type: none"><li>• create awareness in them about different disasters, their consequences and management</li><li>• prepare them in advance to face such situations</li><li>• ensure their participation in disaster mitigation plans</li><li>• enable them to create awareness and preparedness among the community.</li><li>• The project work should also help in enhancing the Life Skills of the students.</li><li>• If possible, various forms of art may be integrated in the project work.</li></ul>	<p>The students need to develop the following competencies:</p> <p>Collaboration</p> <p>Use analytical skills</p> <p>Evaluate the situations during disasters.</p> <p>Synthesize the information</p> <p>Find creative solutions</p> <p>Strategize the order of solutions</p> <p>Use right communication skills</p>

### Guidelines:

In order to realize the expected objectives completely, it would be required of the principals / teachers to muster support from various local authorities and organizations like the Disaster Management Authorities, Relief, Rehabilitation and the Disaster Management Departments of the States, Office of the District Magistrate/ Deputy Commissioners, Fire Service, Police, Civil Defence etc. in the area where the schools are located.

- The project carried out by the students should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.

The distribution of marks over different rubrics relating to Project Work is as follows:

S. No.	Aspects	Marks
a	Content accuracy, originality and collaborative skills	2
b	Competencies exhibited and Presentation	2
c	Viva	1

- All documents pertaining to assessment under this activity should be meticulously maintained by the schools.
- A Summary Report should be prepared highlighting:
  - objectives realized through individual work and group interactions;
  - calendar of activities;
  - innovative ideas generated in the process
  - list of questions asked in viva voce.
- It is to be noted here by all the teachers and students that the projects and models prepared should be made from eco-friendly products without incurring too much expenditure.
- The Project Report can be handwritten or digital.
- The Project Work needs to enhance cognitive, affective and psychomotor skills of the learners. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, art integrated activities, experiments, models, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. (NEP-2020)
- The Project work can culminate in the form of Power Point Presentation/Exhibition/Skit/albums/files/song and dance or culture show /story telling/debate/panel discussion, paper presentation and whichever is suitable to Visually Impaired Candidates.)
- The record of the project work (internal assessment) should be kept for a period of three months for verification, if any.

## ANNEXURE II

### Interdisciplinary Project: Class-IX

Subject and Chapter No	Name of the Chapter	Specific Learning Objectives	Suggested Teaching Learning Process	Learning Outcomes with Specific Competencies	Time Schedule For Completion
<b>History</b>  <b>Chapter IV</b>	Forest Society and Colonialism	<ul style="list-style-type: none"> <li>To categorize different types of forest during the colonial regime.</li> <li>To bring out the plight of Forest dwellers under colonial rule.</li> <li>To examine the reason behind commercial forestry.</li> <li>To devise ways to protect the forest vegetation and wildlife in India.</li> <li>To defend the role of government and the local communities in protecting the forest cover.</li> </ul>	<p>Interdisciplinary project</p> <ul style="list-style-type: none"> <li>Teachers can make use of the pedagogies in facilitating the students in completion of Inter Disciplinary Project</li> </ul> <p>Constructivism</p> <ul style="list-style-type: none"> <li>Inquiry based learning</li> <li>Cooperative learning</li> <li>Research based learning.</li> <li>Experiential learning.</li> <li>Art integration</li> </ul> <p><b>Multiple Assessment:</b> Ex. Surveys / Interviews / Research work/ Observation/ Story based Presentation/ Art integration/ Quiz/ Debate/ role play/ viva, /group discussion, /visual expression/ interactive bulletin boards/ gallery</p>	<ul style="list-style-type: none"> <li>Compare the forest situations prevailed at pre- colonial, colonial and post- colonial era.</li> <li>Analyse and evaluate the growth &amp; role of commercial forestry in different types of Vegetation.</li> <li>Critically analyse the reasons for rebellions at forest areas of south East-Asia with specification to JAVA.</li> </ul>	<ul style="list-style-type: none"> <li>The Schools to do IDP between the months of April and September at the School under the guidance of teacher. (Carryover of project to home must be strictly avoided)</li> </ul>
<b>Geography</b>  <b>Chapter 5</b>	Natural Vegetation and Wildlife	<ul style="list-style-type: none"> <li>To discuss the social and cultural world of forest communities through the study of specific revolts.</li> <li>To analyse the different processes through which agrarian transformation may</li> </ul>			

		occur in the modern world. • To understand how oral traditions can be used to explore tribal revolts	walks/ exit cards/ concept maps/ peer assessment/ art integration /Self-assessment/integration of technology etc.	
--	--	---	---	--

### **Guidelines for Inter Disciplinary Project:**

- It involves combining 2 or more disciplines into one activity-more coherent and integrated. The generally recognized disciplines are economics, History, Geography, Political Science, A sample plan has been enclosed. Kindly access the link given below

[https://docs.google.com/document/d/1668TKkRt80r4-kbjJ\\_Y7zg4mF3Vq1Y9k/edit](https://docs.google.com/document/d/1668TKkRt80r4-kbjJ_Y7zg4mF3Vq1Y9k/edit)

### **Instructions:**

- Objectives and Outcomes need to be picked from Rationale and Specific Objectives considering the local context.

### **Plan of the project:**

- A suggestive 10 days' plan given below which you may follow or you can create on your own, based on the templates provided below

### **Process:**

- Initial collaboration among students to arrange their roles, areas of integration, area of investigation and analysis, roles of students

Team leader: Main collaborator
Team members:
Note: Teacher to allocate the roles as per the abilities of the students.

- Final submission based on course deliverables as given in the template below the 10-day plan.
- Assessment Plan: to be done by the teacher clearly mentioning the Rubrics
- Report, poster and video acknowledgements: reflections & expression of gratitude as given in the template given below

**Day 1-2: "Colonialism and Forest Society"**

Discuss the impact of colonialism on forest societies, and explore the concept of forest as a resource in colonialism.

Group project: Research and present a PPT on the colonial forest policy and its impact on forest societies.

**Day 3-4: "Rebellion in the Forest"**

Analyse the causes and effects of forest-based rebellions in history

Watch the following film Group discuss about forest tribes of your state and the exploitations they face. Refer Annexure VI for Rubrics.

[https://www.youtube.com/watch?v=N6SR0REa\\_YA](https://www.youtube.com/watch?v=N6SR0REa_YA)

**Day 5-6: Forest Transformations in Java, Tropical Evergreen Forests**

Examine the impact of human activity on forests in Java.

Explore how changes in land use, agriculture, and industry have impacted the forests. Students can research the history of forest transformations in Java and their impact on the environment.

Study the transformation of forests in Java, from pre-colonial to post-colonial times

Compare and contrast the conversion of forest into agricultural land and the need.

Through group discussions find solutions. Present an art integrated project.

Discuss the characteristics of tropical evergreen forests, including their climate, soil, and flora/fauna. Students can research specific examples of tropical evergreen forests and the challenges they face, such as deforestation and climate change.

Group project: watch the video through the link <https://www.youtube.com/watch?v=MI0xvHsBigI>

Analyse and present the impact of forest transformations on society, economy and environment in Java. Compare and contrast it with India.

Present a PPT of your learnings. Refer Annexure VI for rubrics

**Day 7-8:** Discuss how colonialism has affected the forest's biodiversity and the survival of indigenous communities living in and around the forest.

Group activity: Divide the group into smaller teams and assign them tasks related to identifying the impact of colonialism on different types of forests. For example, one team can research the impact of colonialism on forest fires, while another team can research the impact of colonialism on the survival of indigenous plants and animals. Make the students use cartoon strips to present their findings.

**Day 9-10:** Make the students to compile all the findings of 8 days' work and present in PPT and through the template given in Annexure V.



### ANNEXURE III

Class X - Project Work	10 periods.	5 marks
<p>Every student has to compulsorily undertake one project on</p> <p><b>Consumer Awareness OR Social Issues OR Sustainable Development</b></p> <p><b>Objectives:</b> The overall objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from an interdisciplinary perspective.</p> <p>It should also help in enhancing the Life Skills of the students.</p> <p>Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report.</p> <p>If required, students may go out for collecting data and use different primary and secondary resources to prepare the project.</p> <p>If possible, various forms of art may be integrated in the project work.</p>		<p>The students need to develop the following competencies:</p> <p>Collaboration</p> <p>Use analytical skills</p> <p>Evaluate the situations during disasters.</p> <p>Synthesize the information</p> <p>Find creative solutions</p> <p>Strategize the order of solutions</p> <p>Use right communication skills</p>

#### Guidelines:

The distribution of marks over different rubrics relating to Project Work is as follows:

S. No.	Rubrics	Marks
a	Content accuracy, originality and collaborative skills	2
b	Competencies exhibited and Presentation	2
c	Viva	1

- 1) The project carried out by the students should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.
- 2) All documents pertaining to assessment under this activity should be meticulously maintained by the schools.
- 3) A Summary Report should be prepared highlighting:
  - objectives realized through individual work and group interactions;
  - calendar of activities;
  - innovative ideas generated in the process
  - list of questions asked in viva voce.
- 4) It is to be noted here by all the teachers and students that the projects and models prepared should be made from eco-friendly products without incurring too much expenditure.
- 5) The Project Report can be handwritten or digital.
- 6) The Project Work needs to enhance cognitive, affective and psychomotor skills of the learners. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, art integrated activities, experiments, models, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. (NEP-2020)
- 7) Must be done at school only as specific periods are allocated for project work.
- 8) The Project work can culminate in the form of Power Point Presentation/Exhibition/Skit/albums/files/song and dance or culture show /story telling/debate/panel discussion, paper presentation and whichever is suitable to Visually Impaired Candidates.
- 9) Records pertaining to projects (internal assessment) of the students will be maintained for a period of three months from the date of declaration of result for verification at the discretion of Board. Sub judice cases, if any or those involving RTI / Grievances may however be retained beyond three months.

## ANNEXURE IV

### Interdisciplinary Project: Class X

10 periods					Max. Marks 5
Subject Name and Chapter No.	Name of the chapter	Specific Learning objectives	Suggested Teaching Learning Process	Learning Outcome with specific competencies	Time schedule for Completion
<b>History</b>  <b>Chapter III</b>	Making of a Global World	<ul style="list-style-type: none"> <li>Trace the history of globalization and point out the shifts within the process.</li> <li>Analyse the implication of globalization on local economies.</li> <li>Examines the importance of transportation for the economic growth and development in India.</li> </ul>	<p>The teachers may use the following pedagogies in facilitating the students in completion of Interdisciplinary Project.</p> <ol style="list-style-type: none"> <li>1) Constructivism</li> <li>2) Inquiry based learning</li> <li>3) Cooperative learning</li> <li>4) Learning station</li> <li>5) Collaborative learning</li> <li>6) Videos/Visuals/documentaries/movie clippings</li> <li>7) Carousel technique</li> <li>8) Art integrated learning</li> <li>9) Group Discussions</li> </ol> <p>Multiple Assessment: Ex. Surveys / Interviews / Research work/ Observation/ Story based</p>	<ul style="list-style-type: none"> <li>Analyse the implication of globalization for local economies.</li> <li>Discuss how globalization is experienced differently by different social groups.</li> <li>Enumerates how the transportation works as a life line of economy.</li> <li>Analyse and infer the impact of roadways and railways on the national economy</li> <li>Analyses and infers the challenges faced by the roadways and railway sector in India.</li> </ul>	<p>The Schools to do IDP between the months of April and September at the School under the guidance of teacher.</p> <p>(Carry over of project to home must be strictly avoided)</p>
<b>Geography</b>  <b>Chapter 7</b>	Lifelines of National Economy	<ul style="list-style-type: none"> <li>Analyse the impact of roadways and railways on the national economy</li> <li>Evaluates the challenges faced by the roadways and railway sector in the country</li> <li>Discuss how globalization is experienced</li> </ul>			

<b>Economics</b>  <b>Chapter 4</b>	Globalization and the Indian Economy	differently by different social groups. <ul style="list-style-type: none"> <li>Connect the role of means of transport and communication in the process of globalization.</li> <li>Investigate the factors that facilitated the growth on MNC 's</li> </ul>	Presentation/ Art integration/ Quiz/ Debate/ role play/ viva, /group discussion, /visual expression/ interactive bulletin boards/ gallery walks/ exit cards/ concept maps/ peer assessment/ art integration /Self-assessment/integration of technology etc.	<ul style="list-style-type: none"> <li>Integrate various dimensions of globalisation in terms of cultural / political/ social /economical aspects)</li> <li>Appraise the evolution of Globalisation and the global trends</li> </ul>	
--	--------------------------------------	---	---	--	--

#### **Guidelines:**

- It involves combining 2 or more disciplines into one activity-more coherent and integrated. The generally recognized disciplines are economics, History, Geography, Political Science, a sample plan has been enclosed) Kindly access the link given below
- Methodology (A sample interdisciplinary project plan Link has been provided to get an insight about IDP.
- Topic: The Making of a Global World, Globalisation and Life lines of Economy

<https://docs.google.com/document/d/1dlwwFeaSrExJHMTkzcEuq3ehh-7FtHM/edit>

#### **Instructions:**

- Objectives and Outcomes need to be picked from Rationale and Specific Objectives considering the local context.

#### **Plan of the project:**

- A suggestive 10 days' plan given below which you may follow or you can create on your own, based on the templates provided below

#### **Process:**

- Initial collaboration among students to arrange their roles, areas of integration, area of investigation and analysis, roles of students

Team leader: Main collaborator
Team members:
Note: Teacher to allocate the roles as per the abilities of the students.

- Final submission based on course deliverables as given in the template below.
- Assessment Plan: to be done by the teacher clearly mentioning the Rubrics
- Report, poster and video acknowledgements: Reflections & expression of gratitude as given in the template below

### Class X: 10-day Suggestive plan for Interdisciplinary Project

#### Day 1: Introduction to the Interdisciplinary Project and Setting the Context:

Brief overview of the project and its objectives to be given by the teachers.

History teacher to Introduce the historical context of the World War II and its aftermath through inquiry method.

Make the students to Group discuss the impact of World War II on the global economy. Teacher to refer annexure III for rubrics)

#### Day 2: The Great Depression:

Students to watch a video from the link, <https://www.youtube.com/watch?v=62DxELjuRec> and

<https://www.youtube.com/watch?v=gqx2E5qIV9s>

and discuss the causes and consequences of the Great Depression and the role of mass production and consumption in the Great Depression. Present a group PPT /report on consequences of the Great Depression on the global economy.

#### Day 3: India and the Great Depression:

Students to collect material related to India's economic condition during the Great Depression and relate it to the present economic condition of India and US. Students may collect information through a visit to the library.

As a group activity they need to present a collage of their findings.( Refer Annexure VI for Rubrics)

#### Day 4: Rebuilding the World Economy and Interlinking Production across countries

- Teachers to use Jigsaw method to make the students to sit in groups and to give each group a part of the handout with information about process taken to rebuild economy and how the production across countries got interlinked. Make the groups to compile the information by moving from group to group.
- Make them discuss the post-war recovery efforts and their impact on the global economy

- Study the role of the Bretton Woods Institutions in rebuilding the world economy and present their learnings through Art Integrated Project. Refer Annexure VI for rubrics.

**Day 5: The Early Post-War Years: The role of roadways, railways, waterways and airways in building the national economy**

- The teacher distributes the Handout 1 given below to the groups and asks them to find answers to the questions posed at the end of Hand out and present it in groups using Café conversations mode. Refer Annexure III for rubrics.
- Study the challenges faced by the world in the early post-war years
- Discuss the efforts made towards decolonization and independence of nations

**Day 6: Post war settlement and Bretton Woods institutions**

- Make the students read the material given in [https://en.wikipedia.org/wiki/Bretton\\_Woods\\_system](https://en.wikipedia.org/wiki/Bretton_Woods_system) and debate the impact of Bretton Woods institutions in the post war economy. Refer Annexure VI for Rubrics.

**Day 7: Decolonization and Independence - The Role of World Trade Organization:**

- The students will read the handout 2 given below and present a role play of the support rendered by the World Trade Organisation in building new nations. Refer Annexure VI for rubrics
- Introduction to the World Trade Organization
- Study the role of the WTO in promoting fair trade practices

**Day 8: End of Bretton Woods and the Beginning of Globalization:**

- The students will read material given in the link <https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20Bretton%20Woods%20system,-The%20system%20dissolved&text=In%20August%201971%2C%20U.S.%20President,the%20breakdown%20of%20the%20system>.
- Organise an interview with a financial expert/economist/ lecturer/professor . Based on the information they gathered, the students can submit a report on the findings.
- Discuss the reasons for the end of the Bretton Woods system

**Day 9: Impact of Globalization in India and role of waterways and airways**

<https://www.jagranjosh.com/general-knowledge/new-economic-policy-of-1991-objectives-features-and-impacts-1448348633-1>

- The students will read the material given in the above link, and design a report on what would have happened to India if this stand wasn't taken and present it as a radio talk show. They will link the role of waterways and airways in the achievement of India in globalisation.
- Study the impact of globalization on the Indian economy
- Discuss the challenges faced by India in the process of globalization

**Day 10.Final presentation**

- Conclude the interdisciplinary project and summarize the key takeaways.

## Handout 1 for Day 4 of Inter Disciplinary Project of Class X

Handout Title: The Role of Waterways and Airways in Post-World War II- World and India

Introduction: After the end of World War II, the world faced significant economic, social, and political changes. The role of waterways and airways in shaping the post-war world and India is crucial to understand. In this handout, we will discuss the impact of waterways and airways on the global economy and how it helped India in its development.

Waterways: In the post-World War II era, waterways played a crucial role in the movement of goods and people. The improvement of ports and waterways allowed for more efficient transportation of goods and helped to spur economic growth.

The increased demand for goods and services, combined with the development of shipping technologies, allowed for the expansion of international trade. This helped to boost the world economy and allowed for the growth of industries in many countries, including India.

In India, the development of waterways and ports helped to improve the country's economy. The country's long coastline and several rivers made it an ideal location for the transportation of goods. The growth of ports and waterways in India allowed for the movement of goods from one part of the country to another, helping to spur economic growth and development.

Airways: After World War II, the development of air transportation revolutionized the world's economy. The expansion of air travel allowed for faster and more efficient transportation of goods and people, which helped to boost the world economy.

In India, the growth of airways helped to connect different parts of the country and made it easier for people and goods to move from one place to another. This helped to spur economic growth and development in India.

The growth of air transportation in India also allowed for the expansion of international trade. Indian businesses could now easily access foreign markets, which helped to boost the country's economy.

Conclusion:

The role of waterways and airways in the post-World War II world and India was crucial in shaping the economic and social landscape of these countries. The development of these transportation modes helped to spur economic growth and allowed for the expansion of international trade. Understanding the impact of waterways and airways on the world and India is crucial in understanding the economic and social changes that took place after World War II.

Questions:

1. **Mention the role of major ports in imports and exports.**
2. **Emergence of Deccan airways changed the entire functionalities of domestic airways> Substantiate the statement**
3. **The waterways and airways contribute to the economic growth of India. Substantiate your answer.**



## Handout 2 for day 7 of Inter Disciplinary Project of Class X

Handout Title: The Role of the World Trade Organization (WTO) in Building New Nations Post-Colonialization

Introduction: After the end of colonialism, many countries faced significant economic and political challenges as they worked to establish themselves as independent nations. The World Trade Organization (WTO) played a crucial role in helping these countries to rebuild their economies and participate in the global economy. In this handout, we will discuss the role of the WTO in building new nations post-colonialization.

What is the WTO?

The WTO is an international organization that was established in 1995 to promote international trade and help countries participate in the global economy.

The WTO provides a forum for countries to negotiate and enforce international trade agreements, and helps to ensure that trade is conducted in a fair and predictable manner. The organization also provides technical assistance and advice to help countries improve their trade policies and participate in the global economy.

How has the WTO helped new nations post-colonialization?

After colonial rule ended, many countries faced significant economic challenges as they worked to establish themselves as independent nations. The WTO helped these countries to participate in the global economy by providing a forum for trade negotiations and by helping to enforce international trade agreements.

The WTO also provided technical assistance and advice to help these countries improve their trade policies and participate in the global economy. This helped to spur economic growth and development in these countries, and allowed them to become more integrated into the global economy.

By participating in the global economy, new nations post-colonialization were able to expand their markets, attract foreign investment, and improve their economic performance. The WTO played a crucial role in helping these countries to build their economies and establish themselves as stable, independent nations.

Conclusion:

The WTO played a crucial role in building new nations post-colonialization by helping these countries to participate in the global economy. The organization's trade negotiations, enforcement of international trade agreements, and technical assistance helped to spur economic growth and development in these countries. Understanding the role of the WTO in building new nations post-colonialization is important in understanding the economic and political changes that took place after the end of colonial rule.



## ANNEXURE V

### Presentation Template by the students - Class IX & X

<b>Name of the Student:</b>	
<b>Members of Team:</b>	
<b>Class :</b>	<b>Section:</b>
<b>Date of Submission:</b>	
<b>Topics of IDP:</b>	
<b>Title of the Project:</b>	
<b>Objectives:</b>	
<b>Multiple Assessment:</b> Ex. Surveys / Interviews / Research work/ Observation/ Story based Presentation/ Art integration/ Quiz/ Debate/ role play/ viva,/group discussion,/visual expression/ interactive bulletin boards/ gallery walks/ exit cards/ concept maps/ peer assessment/ art integration /Self-assessment/integration of technology etc.	
<b>Evidences:</b> Photos, Excerpts from Interviews, observations, Videos, Research References, etc.	
<b>Overall presentation:</b> Link of PPT, shared documents, can be digital/handwritten, as per the convenience of the school.	
<b>Acknowledgement:</b>	
<b>References (websites, books, newspaper etc)</b>	
<b>Reflections:</b>	

## ANNEXURE VI

### Rubrics for IDP

Rubrics	Marks allocated
Research Work	1
Collaboration & Communication	1
Presentation & Content relevance	1
Competencies <ul style="list-style-type: none"><li>• Creativity</li><li>• Analytical skills</li><li>• Evaluation</li><li>• Synthesizing</li></ul>	2
Total	5

**Note:** The Schools may give multiple sub rubrics and may bring it down to 5 marks for weightage.

**Ex: Collaboration:-** Teamwork/ Language fluency/ Contribution to the team/resilience etc

**Research Work:** - Investigation/ reading & comprehending/ compilation etc

**Synthesizing:** - Data collection/ Data collation etc.

# **CBSE | DEPARTMENT OF SKILL EDUCATION**

## **CURRICULUM FOR SESSION 2023-2024**

---

### **ARTIFICIAL INTELLIGENCE (SUB. CODE 417)**

#### **CLASS – IX & X**

#### **OBJECTIVES OF THE COURSE:**

The objective of this module/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 module/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 meaning of AI through interactive participation and engaging hands-on activities.
4. Introducing the learners to AI Project Cycle.
5. Introducing the learners to programming skills - Basic python coding language.

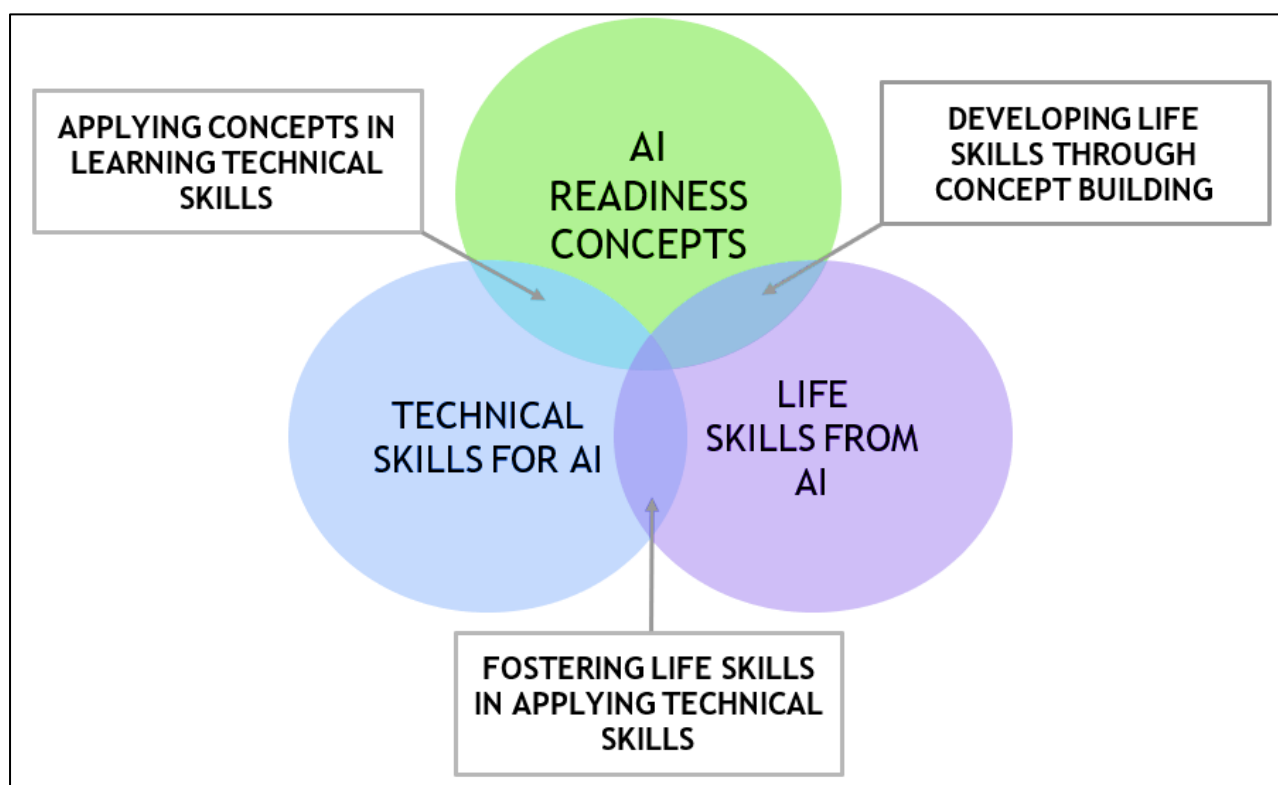
#### **LEARNING OUTCOMES:**

Learners will be able to

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 and Undergo assessment for analysing their progress towards acquired AI-Readiness skills.
3. Imagine, examine and reflect on the skills required for futuristic job opportunities.
4. Unleash their imagination towards smart homes and build an interactive story around it.
5. Understand the impact of Artificial Intelligence on Sustainable Development Goals to develop responsible citizenship.
6. Research and develop awareness of skills required for jobs of the future.
7. Gain awareness about AI bias and AI access and describe the potential ethical considerations of AI.
8. Develop effective communication and collaborative work skills.
9. Get familiar and motivated towards Artificial Intelligence and Identify the AI Project Cycle framework.
10. 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.

11. Brainstorm on the ethical issues involved around the problem selected.
12. 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.
13. Use various types of graphs to visualize acquired data.
14. Understand, create and implement the concept of Decision Trees.
15. Understand and visualize computer's ability to identify alphabets and handwritings.
16. Understand and appreciate the concept of Neural Network through gamification and learn basic programming skills through gamified platforms.
17. Acquire introductory Python programming skills in a very user-friendly format.

### **SKILLS TO BE DEVELOPED:**



### **SCHEME OF STUDIES:**

This course is a planned sequence of instructions consisting of units meant for developing employability and vocational competencies of students of Class IX opting for skill subject along with other education subjects.

The unit-wise distribution of hours and marks for class IX & X is as follows:

# ARTIFICIAL INTELLIGENCE (SUBJECT CODE 417)

## CLASS – IX (SESSION 2023-2024)

Total Marks: 100 (Theory-50 + Practical-50)

	UNITS	NO. OF HOURS for Theory and Practical	MAX. MARKS for Theory and Practical
<b>PART A</b>	<b>Employability Skills</b>		
	Unit 1: Communication Skills-I	10	2
	Unit 2: Self-Management Skills-I	10	2
	Unit 3: ICT Skills-I	10	2
	Unit 4: Entrepreneurial Skills-I	15	2
	Unit 5: Green Skills-I	05	2
	<b>Total</b>	<b>50</b>	<b>10</b>
<b>PART B</b>	<b>Subject Specific Skills</b>		
	Unit 1: Introduction to Artificial Intelligence (AI)		10
	Unit 2: AI Project Cycle		15
	Unit 3: Neural Network		05
	Unit 4: Introduction to Python		10
	<b>Total</b>		<b>40</b>
<b>PART C</b>	<b>Practical Work</b>		
	Unit 4: Introduction to Python <b>Practical File (minimum 15 programs)</b>		15
	<b>Practical Examination</b> <ul style="list-style-type: none"> <li>Simple programs using input and output function</li> <li>Variables, Arithmetic Operators, Expressions, Data Types</li> <li>Flow of control and conditions</li> <li>Lists</li> </ul> <b>* Any 3 programs based on the above topics</b>		15
	Viva Voce		5
	<b>Total</b>		<b>35</b>
<b>PART D</b>	<b>Project Work / Field Visit / Student Portfolio</b> <b>* relate it to Sustainable Development Goals</b> <b>(Any one has to be done)</b>		15
	<b>Total</b>		<b>15</b>
	<b>GRAND TOTAL</b>	<b>200</b>	<b>100</b>

## **DETAILED CURRICULUM/TOPICS FOR CLASS IX:**

### **PART-A: EMPLOYABILITY SKILLS**

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-I	10
2.	Unit 2: Self-management Skills-I	10
3.	Unit 3: Information and Communication Technology Skills-I	10
4.	Unit 4: Entrepreneurial Skills-I	15
5.	Unit 5: Green Skills-I	05
	<b>TOTAL</b>	<b>50</b>

**NOTE:** Detailed curriculum/ topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

### **PART-B – SUBJECT SPECIFIC SKILLS**

- ❖ Unit 1: Introduction to Artificial Intelligence (AI)
- ❖ Unit 2: AI Project Cycle
- ❖ Unit 3: Neural Network
- ❖ Unit 4: Introduction to Python

#### **UNIT 1: INTRODUCTION TO ARTIFICIAL INTELLIGENCE (AI)**

SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
<b>Excite</b>	To identify and appreciate Artificial Intelligence and describe its applications in daily life.	Session: Introduction to AI and setting up the context of the curriculum Ice Breaker Activity: Dream Smart Home idea <ul style="list-style-type: none"><li>• Learners to design a rough layout of floor plan of their dream smart home.</li><li>• Recommended Activity: Make a statement about lighting and LUIS will interpret and adjust the house accordingly (<a href="https://aidemos.microsoft.com/luis/demo">https://aidemos.microsoft.com/luis/demo</a>)</li></ul>
	To 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.	Recommended Activity: The AI Game <ul style="list-style-type: none"><li>• Learners to participate in three games based on different AI domains.<ul style="list-style-type: none"><li>– Game 1: Rock, Paper and Scissors (based on data) (<a href="https://next.rockpaperscissors.ai/">https://next.rockpaperscissors.ai/</a>)</li><li>– Game 2: Semantris (based on Natural Language Processing - NLP) (<a href="https://research.google.com/semantris/">https://research.google.com/semantris/</a>)</li><li>– Game 3: Quick Draw (based on Computer Vision - CV) (<a href="https://quickdraw.withgoogle.com/">https://quickdraw.withgoogle.com/</a>)</li></ul></li></ul>
	To undergo an assessment for analysing progress towards acquired AI-Readiness skills.	Recommended Activity: <ul style="list-style-type: none"><li>• AI Quiz (Paper Pen/Online Quiz)</li></ul>

SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
	To imagine, examine and reflect on the skills required for futuristic job opportunities.	Recommended Activity: To write a letter. Writing a Letter to one's future self <ul style="list-style-type: none"> <li>Learners to write a letter to self-keeping the future in context. They will describe what they have learnt so far or what they would like to learn someday</li> </ul>
<b>Relate</b>	Learners to relate to application of Artificial Intelligence in their daily lives.	Video Session: To watch a video <ul style="list-style-type: none"> <li>Introducing the concept of Smart Cities, Smart Schools and Smart Homes</li> </ul>
	To unleash their imagination towards smart homes and build an interactive story around it. To relate, apply and reflect on the Human-Machine Interactions.	Recommended Activity: Write an Interactive Story <ul style="list-style-type: none"> <li>Learners to draw a floor plan of a Home/School/City and write an interactive story around it using Inklewriter. (<a href="https://www.inklewriter.com/">https://www.inklewriter.com/</a>)</li> </ul>
<b>Purpose</b>	To understand the impact of Artificial Intelligence on Sustainable Development Goals to develop responsible citizenship.	Session: <ul style="list-style-type: none"> <li>Introduction to UN Sustainable Development Goals</li> </ul>
		Recommended Activity: <ul style="list-style-type: none"> <li>Go Goals Board Game: Learners to answer questions on Sustainable Development Goals</li> <li>AI for Ocean- "helping to conserve oceans is by fighting plastic pollution with machine learning." (<a href="https://code.org/oceans">https://code.org/oceans</a>)</li> </ul>
<b>Possibilities</b>	To research and develop awareness of skills required for jobs of the future.	Session: Theme-based research and Case Studies <ul style="list-style-type: none"> <li>Learners will listen to various case-studies of inspiring start-ups, companies or communities where AI has been involved in real-life.</li> <li>Learners will be allotted a theme around which they need to search for present AI trends and have to visualise the future of AI in and around their respective theme.</li> </ul>
	To imagine, examine and reflect on the skills required for the futuristic opportunities.  To develop effective communication and collaborative work skills.	Recommended Activity: Job Ad Creating activity <ul style="list-style-type: none"> <li>Learners to create a job advertisement for a firm describing the nature of job available and the skill set required for it 10 years down the line. They need to figure out how AI is going to transform the nature of jobs and create the Ad accordingly.</li> </ul>
<b>AI Ethics</b>	To understand and reflect on the ethical issues around AI.	Video Session: Discussing about AI Ethics Recommended Activity: Ethics Awareness <ul style="list-style-type: none"> <li>Students play the role of major stakeholders, and they have to decide what is ethical and what is not for a given scenario.</li> <li>Students to explore Moral Machine (<a href="https://www.moralmachine.net/">https://www.moralmachine.net/</a>) to understand more about the impact of ethical concerns</li> </ul>

SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
	To gain awareness around AI bias and AI access.	Session: AI Bias and AI Access <ul style="list-style-type: none"> <li>Discussing about the possible bias in data collection</li> <li>Discussing about the implications of AI technology</li> </ul>
	To let the students analyse the advantages and disadvantages of Artificial Intelligence.	Recommended Activity: Balloon Debate <ul style="list-style-type: none"> <li>Students divide in teams of 3 and 2 teams are given same theme. One team goes in affirmation to AI for their section while the other one goes against it.</li> <li>They have to come up with their points as to why AI is beneficial/ harmful for the society.</li> </ul>

## UNIT 2: AI PROJECT CYCLE:

SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
<b>Problem Scoping</b>	Identify the AI Project Cycle framework.	Session: Introduction to AI Project Cycle <ul style="list-style-type: none"> <li>Problem Scoping</li> <li>Data Acquisition</li> <li>Data Exploration</li> <li>Modelling</li> <li>Evaluation</li> </ul>
	Learn problem scoping and ways to set goals for an AI project.	Activity: Brainstorm around the theme provided and set a goal for the AI project. <ul style="list-style-type: none"> <li>Discuss various topics within the given theme and select one.</li> <li>Fill in the 4Ws problem canvas and a problem statement to learn more about the problem identified in the community/ society</li> <li>List down/ Draw a mind map of problems related to the selected topic and choose one problem to be the goal for the project.</li> </ul>
	Identify stakeholders involved in the problem scoped. Brainstorm on the ethical issues involved around the problem selected.	Activity: To set actions around the goal. <ul style="list-style-type: none"> <li>List down the stakeholders involved in the problem.</li> <li>Search on the current actions taken to solve this problem.</li> <li>Think around the ethics involved in the goal of your project.</li> </ul>
	Understand the iterative nature of problem scoping for in the AI project cycle. Foresee the kind of data required and the kind of analysis to be done.	Activity: Data and Analysis <ul style="list-style-type: none"> <li>What are the data features needed?</li> <li>How will the features collected affect the problem?</li> <li>Where can you get the data?</li> <li>How frequent do you have to collect the data?</li> <li>What happens if you don't have enough data?</li> <li>What kind of analysis needs to be done?</li> <li>How will it be validated?</li> <li>How does the analysis inform the action?</li> </ul>



SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
	Share what the students have discussed so far.	Presentation: Presenting the goal, actions and data. Teamwork Activity: <ul style="list-style-type: none"> <li>Brainstorming solutions for the problem statement.</li> </ul>
<b>Data Acquisition</b>	Identify data requirements and find reliable sources to obtain relevant data.	Activity: Introduction to data and its types. <ul style="list-style-type: none"> <li>Students work around the scenarios given to them and think of ways to acquire data.</li> </ul> Activity: Data Features <ul style="list-style-type: none"> <li>Identifying the possible data features affecting the problem.</li> </ul> Activity: System Maps <ul style="list-style-type: none"> <li>Creating system maps considering data features identified.</li> </ul>
<b>Data Exploration</b>	To understand the purpose of Data Visualisation	Session: Data Visualisation <ul style="list-style-type: none"> <li>Need of visualising data</li> <li>Ways to visualise data using various types of graphical tools.</li> <li>Quiz Time</li> </ul>
	Use various types of graphs to visualise acquired data.	Recommended Activities: Let's use Graphical Tools <ul style="list-style-type: none"> <li>Selecting an appropriate graphical format and presenting the graph sketched.</li> <li>Understanding graphs using (<a href="https://datavizcatalogue.com/">https://datavizcatalogue.com/</a> )</li> <li>Listing of newly learnt data visualization techniques.</li> <li>Top 10 Song Prediction: Identify the data features, collect the data and convert into graphical representation.</li> <li>Collect and store data in a spreadsheet and create some graphical representations to understand the data effectively.</li> </ul>
<b>Modelling</b>	Understand modeling (Rule-based & Learning-based)	Session: Modeling <ul style="list-style-type: none"> <li>Introduction to modeling and types of models (Rule-based &amp; Learning-based)</li> </ul> Recommended Activity: Rule-based & Learning-based) <ul style="list-style-type: none"> <li>Rule-based: Students can be asked to create text to speech bot using (<a href="https://theaiplayground.com/blocks/new">https://theaiplayground.com/blocks/new</a> )</li> <li>Learning-based Activity: Students can be asked to use (<a href="https://teachablemachine.withgoogle.com/">https://teachablemachine.withgoogle.com/</a> )</li> </ul>
	Understand, create and implement the concept of Decision Trees.	Session: Decision Tree <ul style="list-style-type: none"> <li>To introduce basic structure of Decision Trees to students.</li> </ul> Recommended Activity: Decision Tree <ul style="list-style-type: none"> <li>To design a Decision Tree based on the data given. (Spot the Elephant)</li> </ul>

SUB-UNIT	LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
	Understand and visualise computer's ability to identify alphabets and handwritings.	<p>Recommended Activity: Pixel It</p> <ul style="list-style-type: none"> <li>To create an "AI Model" to classify handwritten letters.</li> <li>Students develop a model to classify handwritten letters by dividing the alphabets into pixels.</li> <li>Pixels are then joined together to analyse a pattern amongst same alphabets and to differentiate the different ones.</li> </ul>

### UNIT 3: NEURAL NETWORK:

LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
Understand and appreciate the concept of Neural Network through gamification.	<p>Session: Introduction to neural network</p> <ul style="list-style-type: none"> <li>Relation between the neural network and nervous system in human body</li> <li>Describing the function of neural network.</li> </ul>
	<p>Recommended Activity: Creating a Human Neural Network</p> <ul style="list-style-type: none"> <li>Students split in four teams each representing input layer (X students), hidden layer 1 (Y students), hidden layer 2 (Z students) and output layer (1 student) respectively.</li> <li>Input layer gets data which is passed on to hidden layers after some processing. The output layer finally gets all information and gives meaningful information as output.</li> </ul> <p>Teamwork Activity:</p> <ul style="list-style-type: none"> <li>Students in groups shall be assigned the task to create and present the neural networks on a cardboard/chart paper.</li> </ul>


### UNIT 4: INTRODUCTION TO PYTHON:

LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
Learn basic programming skills through gamified platforms.	<p>Recommended Activity:</p> <ul style="list-style-type: none"> <li>Introduction to programming using Online Gaming portals like Code Combat.</li> </ul>
Acquire introductory Python programming skills in a very user-friendly format.	<p>Session:</p> <ul style="list-style-type: none"> <li>Introduction to Python language</li> <li>Introducing python programming and its applications</li> </ul>
	<p>Theory + Practical: Python Basics</p> <ul style="list-style-type: none"> <li>Students go through lessons on Python Basics (Variables, Arithmetic Operators, Expressions, Comparison Operators, logical operators, Assignment Operators, Data Types - integer, float, strings, type conversion, using print() and input() functions)</li> <li>Students will try some simple problem-solving exercises on Python Compiler.</li> </ul>

LEARNING OUTCOMES	SESSION / ACTIVITY / PRACTICAL
	Practical: Flow of control and conditions 1. Students go through lessons on conditional and iterative statements (if, for and while) 2. Students will try some basic problem-solving exercises using conditional and iterative statements on Python Compiler.
	Practical: Python Lists 3. Students go through lessons on Python Lists (Simple operations using list) 4. Students will try some basic problem-solving exercises using lists on Python Compiler.

## PART-C: PRACTICAL WORK

### UNIT 4: INTRODUCTION TO PYTHON: Suggested Program List

<b>PRINT</b>	<ul style="list-style-type: none"> <li>To print personal information like Name, Father's Name, Class, School Name.</li> <li>To print the following patterns using multiple print commands-   </li> <li>To find square of number 7</li> <li>To find the sum of two numbers 15 and 20.</li> <li>To convert length given in kilometers into meters.</li> <li>To print the table of 5 up to five terms.</li> <li>To calculate Simple Interest if the principle_amount = 2000 rate_of_interest = 4.5 time = 10</li> </ul>
<b>INPUT</b>	<ul style="list-style-type: none"> <li>To calculate Area and Perimeter of a rectangle</li> <li>To calculate Area of a triangle with Base and Height</li> <li>To calculating average marks of 3 subjects</li> <li>To calculate discounted amount with discount %</li> <li>To calculate Surface Area and Volume of a Cuboid</li> </ul>
<b>LIST</b>	<ul style="list-style-type: none"> <li>Create a list in Python of children selected for science quiz with following names- Arjun, Sonakshi, Vikram, Sandhya, Sonal, Isha, Kartik Perform the following tasks on the list in sequence-             <ul style="list-style-type: none"> <li>Print the whole list</li> <li>Delete the name "Vikram" from the list</li> <li>Add the name "Jay" at the end</li> <li>Remove the item which is at the second position.</li> </ul> </li> <li>Create a list num=[23,12,5,9,65,44]             <ul style="list-style-type: none"> <li>Print the length of the list</li> <li>Print the elements from second to fourth position using positive indexing</li> <li>Print the elements from position third to fifth using negative indexing</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Create a list of first 10 even numbers, add 1 to each list item and print the final list.</li> <li>• Create a list List_1=[10,20,30,40]. Add the elements [14,15,12] using extend function. Now sort the final list in ascending order and print it.</li> </ul>
<b>IF, FOR, WHILE</b>	<ul style="list-style-type: none"> <li>• Program to check if a person can vote</li> <li>• To check the grade of a student</li> <li>• Input a number and check if the number is positive, negative or zero and display an appropriate message</li> <li>• To print first 10 natural numbers</li> <li>• To print first 10 even numbers</li> <li>• To print odd numbers from 1 to n</li> <li>• To print sum of first 10 natural numbers</li> <li>• Program to find the sum of all numbers stored in a list</li> </ul>
<b>Important Links</b>	<ul style="list-style-type: none"> <li>• <a href="https://cbseacademic.nic.in/web_material/Curriculum21/publication/secondary/Python_Content_Manual.pdf">https://cbseacademic.nic.in/web_material/Curriculum21/publication/secondary/Python_Content_Manual.pdf</a></li> <li>• <a href="http://bit.ly/loops_jupyter">http://bit.ly/loops_jupyter</a></li> <li>• <a href="https://bit.ly/40uovYK">https://bit.ly/40uovYK</a></li> </ul>

**PART-D: Project Work / Field Visit / Student Portfolio**  
(relate it to Sustainable Development Goals)

**Suggested Projects/ Field Visit / Portfolio (Any one has to be done)**

<b>Suggested Projects</b>	<ol style="list-style-type: none"> <li>1. Create an AI Model using tools like- <ul style="list-style-type: none"> <li>○ Teachable Machine (<a href="https://teachablemachine.withgoogle.com/">https://teachablemachine.withgoogle.com/</a>)</li> <li>○ Machine Learning For Kids (<a href="https://machinelearningforkids.co.uk/">https://machinelearningforkids.co.uk/</a>)</li> </ul> </li> <li>2. Choose an issue that pertains to the objectives of sustainable development and carry out the actions listed below. <ul style="list-style-type: none"> <li>○ To understand more about the problem identified, create a 4Ws problem canvas.</li> <li>○ Identify the data features and create a system map to understand relationship between them</li> <li>○ Visualize the data collected graphically (Spreadsheet software to be used store and visualize the data)</li> <li>○ Suggest an AI enabled solution to it (Prototype/Research Work)</li> </ul> </li> </ol>
<b>Suggested Field Visit</b>	<p>Visit to an industry or IT company or any other place that is creating or using AI applications and present the report for the same.</p> <p>Visit can be in physical or virtual mode.</p>
<b>Suggested Student Portfolio</b>	<p>Maintaining a record of all AI activities and projects (For Example Letter to Futureself, Smart Home Floor Plan, Future Job Advertisement, Research Work on AI for SDGs and AI in Different Sectors, 4Ws canvas, System Map).</p> <p><b>(Minimum 5 Activities)</b></p>

**ARTIFICIAL INTELLIGENCE (SUBJECT CODE 417)**  
**CLASS – X (SESSION 2023-2024)**

Total Marks: 100 (Theory-50 + Practical-50)

	<b>UNITS</b>	<b>NO. OF HOURS for Theory and Practical</b>	<b>MAX. MARKS for Theory and Practical</b>
<b>PART A</b>	<b>Employability Skills</b>		
	Unit 1: Communication Skills-II	10	2
	Unit 2: Self-Management Skills-II	10	2
	Unit 3: ICT Skills-II	10	2
	Unit 4: Entrepreneurial Skills-II	15	2
	Unit 5: Green Skills-II	05	2
	<b>Total</b>	<b>50</b>	<b>10</b>
<b>PART B</b>	<b>Subject Specific Skills</b>		
	Unit 1: Introduction to Artificial Intelligence (AI)		7
	Unit 2: AI Project Cycle		9
	Unit 3: Advance Python (To be assessed in Practicals only)		--
	Unit 4: Data Science (Introduction, Applications of Data Sciences, Data Science: Getting Started (up to Data Access), <i>remaining portion is to be assessed in practical</i> )		4
	Unit 5: Computer Vision (Introduction, Applications of Computer Vision, Computer Vision: Getting Started (up to RGB Images), <i>remaining portion is to be assessed in practical</i> )		4
	Unit 6: Natural Language Processing		8
	Unit 7: Evaluation		8
	<b>Total</b>		<b>40</b>
<b>PART C</b>	<b>Practical Work:</b>		
	Practical File with minimum 15 Programs		15
	Practical Examination		5
	• Unit 3: Advance Python		5
	• Unit 4: Data Science		5
	• Unit 5: Computer Vision		5
	Viva Voce		5
	<b>Total</b>		<b>35</b>
<b>PART D</b>	Project Work / Field Visit / Student Portfolio (Any one to be done)		10
	Viva Voce		5
	<b>Total</b>		<b>15</b>
	<b>GRAND TOTAL</b>	<b>200</b>	<b>100</b>

## DETAILED CURRICULUM/TOPICS FOR CLASS X

### Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-II	10
2.	Unit 2: Self-management Skills-II	10
3.	Unit 3: Information and Communication Technology Skills-II	10
4.	Unit 4: Entrepreneurial Skills-II	15
5.	Unit 5: Green Skills-II	05
<b>TOTAL</b>		<b>50</b>

**Note:** The detailed curriculum/ topics to be covered under Part A: Employability Skills can be downloaded from CBSE website

### Part-B – SUBJECT SPECIFIC SKILLS

- ❖ Unit 1: Introduction to Artificial Intelligence (AI)
- ❖ Unit 2: AI Project Cycle
- ❖ Unit 3: Advance Python
- ❖ Unit 4: Data Science
- ❖ Unit 5: Computer Vision
- ❖ Unit 6: Natural Language Processing
- ❖ Unit 7: Evaluation

### UNIT 1: INTRODUCTION TO ARTIFICIAL INTELLIGENCE

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Foundational concepts of AI	Understand the concept of human intelligence and its various components such as reasoning, problem-solving, and creativity	<b>Session:</b> What is Intelligence?
		<b>Session:</b> Decision Making. <ul style="list-style-type: none"> <li>• How do you make decisions?</li> <li>• Make your choices!</li> </ul>
		<b>Session:</b> what is Artificial Intelligence and what is not?
Basics of AI: Let's Get Started	Understand the concept of Artificial Intelligence (AI) and its domains	<b>Session:</b> Introduction to AI and related terminologies. <ul style="list-style-type: none"> <li>• Introducing AI, ML &amp; DL.</li> <li>• Introduction to AI Domains (Data Sciences, CV &amp; NLP)</li> <li>• Gamified tools for each domain- <ul style="list-style-type: none"> <li>○ Data Sciences- Impact Filter (Impact of rise in temperature on different species)  <a href="https://artsexperiments.withgoogle.com/impactfilter/">https://artsexperiments.withgoogle.com/impactfilter/</a></li> <li>○ CV- Autodraw (It pairs machine learning with drawings from talented artists to help you draw stuff fast.)  <a href="https://www.autodraw.com/">https://www.autodraw.com/</a></li> </ul> </li> </ul>

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
		<ul style="list-style-type: none"> <li>○ NLP- Wordtune (AI writing tool that rewrites, rephrases, and rewords your writing) <a href="https://www.wordtune.com/">https://www.wordtune.com/</a></li> </ul>
	Explore the use of AI in real Life.	<b>Session:</b> Applications of AI – A look at Real-life AI implementations
	Learn about the ethical concerns involved in AI development, such as AI bias, data privacy and how they can be addressed.	<b>Session:</b> AI Ethics <ul style="list-style-type: none"> <li>● Moral Machine Activity : a platform for gathering a human perspective on moral decisions made by machine intelligence, such as self-driving cars. <a href="http://moralmachine.mit.edu/">http://moralmachine.mit.edu/</a></li> </ul>

## UNIT 2 : AI PROJECT CYCLE

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Introduction	Understand the stages involved in the AI project cycle, such as problem scoping, data collection, data exploration, modeling, evaluation.	<b>Session:</b> Introduction to AI Project Cycle
Problem Scoping	Learn about the importance of project planning in AI development and how to define project goals and objectives.	<b>Session:</b> Understanding Problem Scoping & Sustainable Development Goals
Data Acquisition	Develop an understanding of the importance of data collection in AI and how to choose the right data sources.	<b>Session:</b> Simplifying Data Acquisition
Data Exploration	Know various data exploration techniques and its importance	<b>Session:</b> Visualising Data
Modelling	Know about the different machine learning algorithms used to train AI models	<b>Session:</b> Introduction to modelling <ul style="list-style-type: none"> <li>● Introduction to Rule Based &amp; Learning Based AI Approaches</li> <li>● Activity : Teachable machine to demonstrate Supervised Learning <a href="https://teachablemachine.withgoogle.com/">https://teachablemachine.withgoogle.com/</a></li> <li>● Activity : Infinite Drum Machine to demonstrate Unsupervised learning <a href="https://experiments.withgoogle.com/ai/drum-machine/view/">https://experiments.withgoogle.com/ai/drum-machine/view/</a></li> <li>● Introduction to Supervised, Unsupervised &amp; Reinforcement Learning Models(Optional)**</li> <li>● Neural Networks</li> </ul>
Evaluation	Know the importance of evaluation and various metrics available for evaluation	<b>Session:</b> Evaluating the idea!

**UNIT 3 : ADVANCE PYTHON** (To be assessed through Practicals)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Recap	Understand to work with Jupyter Notebook, creating virtual environment, installing Python Packages.	<b>Session:</b> Jupyter Notebook
	Able to write basic Python programs using fundamental concepts such as variables, data types, operators, and control structures.	<b>Session:</b> Introduction to Python
	Able to use Python built-in functions and libraries.	<b>Session:</b> Python Basics

**UNIT 4: DATA SCIENCES** (To be assessed through Theory)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Introduction	Define the concept of Data Science and understand its applications in various fields.	<b>Session:</b> Introduction to Data Science
		<b>Session:</b> Applications of Data Science
Getting Started	Understand the basic concepts of data acquisition, visualization, and exploration.	<b>Session:</b> Revisiting AI Project Cycle, Data Collection, Data Access Activities: Game: Rock, Paper & Scissors <a href="https://next.rockpaperscissors.ai/">https://next.rockpaperscissors.ai/</a>

**UNIT 4: DATA SCIENCES** (To be assessed through Practicals)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Python Packages	Use Python libraries such as NumPy, Pandas, and Matplotlib for data analysis and visualization.	<b>Session:</b> Python for Data Sciences <ul style="list-style-type: none"> <li>• Numpy</li> <li>• Pandas</li> <li>• Matplotlib</li> </ul>
Concepts of Data Sciences	Understand the basic concepts of statistics, such as mean, median, mode, and standard deviation, and apply them to analyze data using various Python packages.	<b>Session:</b> Statistical Learning & Data Visualisation
<i>K-nearest neighbour model (Optional)**</i>	<i>Understand the basic concepts of the KNN algorithm and its applications in supervised learning.</i>	<i><b>Activity:</b> Personality Prediction (Optional)**</i> <i><b>Session:</b> Understanding K-nearest neighbour model (Optional)**</i>



## UNIT 5: COMPUTER VISION (To be assessed through Theory)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Introduction	Define the concept of Computer Vision and understand its applications in various fields.	<b>Session:</b> Introduction to Computer Vision <b>Session:</b> Applications of CV
Concepts of Computer Vision	Understand the basic concepts of image representation, feature extraction, object detection, and segmentation.	<b>Session:</b> Understanding CV Concepts <ul style="list-style-type: none"> <li>• Computer Vision Tasks</li> <li>• Basics of Images-Pixel, Resolution, Pixel value</li> <li>• Grayscale and RGB images</li> </ul> <b>Activities:</b> <ul style="list-style-type: none"> <li>• Game- Emoji Scavenger Hunt  <a href="https://emojiscavengerhunt.withgoogle.com/">https://emojiscavengerhunt.withgoogle.com/</a></li> <li>• RGB Calculator:  <a href="https://www.w3schools.com/colors/colors_rgb.asp">https://www.w3schools.com/colors/colors_rgb.asp</a></li> <li>• Create your own pixel art:  <a href="http://www.piskelapp.com">www.piskelapp.com</a></li> <li>• Create your own convolutions:  <a href="http://setosa.io/ev/image-kernels/">http://setosa.io/ev/image-kernels/</a></li> </ul>

## UNIT 5: COMPUTER VISION (To be assessed through Practicals)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
OpenCV	Use Python libraries such as OpenCV for basic image processing and computer vision tasks.	<b>Session:</b> Introduction to OpenCV <b>Hands-on:</b> Image Processing
Convolution Operator (Optional)**	Apply the convolution operator to process images and extract useful features.	<b>Session:</b> Understanding Convolution operator (Optional)** <b>Activity:</b> Convolution Operator (Optional)**
Convolution Neural Network (Optional)**	Understand the basic architecture of a CNN and its applications in computer vision and image recognition.	<b>Session:</b> Introduction to CNN (Optional)** <b>Session:</b> Understanding CNN (Optional)** <ul style="list-style-type: none"> <li>• Kernel</li> <li>• Layers of CNN</li> </ul> <b>Activity:</b> Testing CNN (Optional)**

## UNIT 6: NATURAL LANGUAGE PROCESSING

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Introduction	Understand the concept of Natural Language Processing (NLP) and its importance in the field of Artificial Intelligence (AI).	<b>Session:</b> Introduction to Natural Language Processing Activity : Use of Google Translate for same spelling words <b>Session:</b> NLP Applications <b>Session:</b> Revisiting AI Project Cycle
Chatbots	Explore the various applications of NLP in everyday life, such as chatbots, sentiment analysis, and automatic summarization	<b>Activity:</b> Introduction to Chatbots
Language Differences	Gain an understanding of the challenges involved in understanding human language by machine.	<b>Session:</b> Human Language VS Computer Language
Concepts of Natural Language Processing	Learn about the Text Normalization technique used in NLP and popular NLP model - Bag-of-Words	<b>Session: Data Processing</b> <ul style="list-style-type: none"> <li>Text Normalisation</li> <li>Bag of Words</li> </ul> <b>Hands-on:</b> Text processing <ul style="list-style-type: none"> <li>Data Processing</li> <li>Bag of Words</li> <li>TFIDF (Optional)**</li> <li>NLTK (Optional)**</li> </ul>

## UNIT 7: EVALUATION

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Introduction	Understand the role of evaluation in the development and implementation of AI systems.	<b>Session:</b> Introduction to Model Evaluation <ul style="list-style-type: none"> <li>What is Evaluation?</li> <li>Different types of Evaluation techniques- Underfit, Perfect Fit, OverFit</li> </ul>
Model Evaluation Terminology	Learn various Model Evaluation Terminologies	<b>Session:</b> Model Evaluation Terminologies <ul style="list-style-type: none"> <li>The Scenario - Prediction, Reality, True Positive, True Negative, False Positive, False Negative</li> <li>Confusion Matrix</li> <li>Activity- to make a confusion matrix based on data given for Containment Zone Prediction Model</li> </ul>
Confusion Matrix	Learn to make a confusion matrix for given Scenario	<b>Session &amp; Activity:</b> Confusion Matrix
Evaluation Methods	Learn about the different types of evaluation techniques in AI, such as Accuracy, Precision, Recall and F1 Score, and their significance.	<b>Session:</b> Evaluation Methods <ul style="list-style-type: none"> <li>Accuracy</li> <li>Precision</li> <li>Recall</li> <li>Which Metric is Important? - Precision or Recall</li> <li>F1 Score</li> </ul>
		<b>Activity:</b> Practice Evaluation

## PART-C: PRACTICAL WORK

<b>Suggested Programs List</b>	<ul style="list-style-type: none"><li>• Write a program to add the elements of the two lists.</li><li>• Write a program to calculate mean, median and mode using Numpy</li><li>• Write a program to display line chart from (2,5) to (9,10).</li><li>• Write a program to display a scatter chart for the following points (2,5), (9,10),(8,3),(5,7),(6,18).</li><li>• Read csv file saved in your system and display 10 rows.</li><li>• Read csv file saved in your system and display its information</li><li>• Write a program to read an image and display using Python</li><li>• Write a program to read an image and identify its shape using Python</li></ul>
<b>Important Links</b>	<ul style="list-style-type: none"><li>• <a href="https://cbseacademic.nic.in/web_material/Curriculum21/publication/secondary/Class10_Facilitator_Handbook.pdf">https://cbseacademic.nic.in/web_material/Curriculum21/publication/secondary/Class10_Facilitator_Handbook.pdf</a></li><li>• Link to AI Activities &amp; Jupyter Notebooks (including sample projects) <a href="https://bit.ly/class_X_activities_jupyter_notebooks">https://bit.ly/class_X_activities_jupyter_notebooks</a></li></ul>

## PART-D: Project Work / Field Visit / Student Portfolio

\* relate it to Sustainable Development Goals

**Suggested Projects/ Field Visit / Portfolio (any one activity to be one)**

<b>Sample Projects</b>	<ol style="list-style-type: none"><li>1. Student Marks Prediction Model</li><li>2. CNN Model on Smoke and Fire Detection</li></ol>
<b>Field Work</b>	Students' participation in the following- <ul style="list-style-type: none"><li>• AI for Youth Bootcamp</li><li>• AI Fests/ Exhibition</li><li>• Participation in any AI training sessions</li><li>• Virtual tours of companies using AI to get acquainted with real-life usage</li></ul>
<b>Student Portfolio (to be continued from class IX)</b>	<ul style="list-style-type: none"><li>• Maintaining a record of all AI activities</li><li>• Hackathons</li><li>• Competitions (CBSE/Interschool)</li></ul> <p>Note: Portfolio should contain minimum 5 activities</p>

**\*\*NOTE: Optional components shall not be assessed. They are for extra knowledge**

**LIST OF ITEMS/ EQUIPMENTS (MINIMUM REQUIREMENTS):**

The equipment / materials listed below are required to conduct effective hands-on learning sessions while delivering the AI curriculum to class 10 students. The list below consists of minimal configuration required to execute the AI curriculum for class 10 and create social impact real time solutions/ projects. The quantities mentioned here are recommended for a batch of 20 students keeping the human-machine ratio as 2:1. An exhaustive list may be compiled by the teacher(s) teaching the subject.

S. NO.	ITEM NAME, DESCRIPTION & SPECIFICATION
<b>A</b>	<b>SYSTEM SPECIFICATIONS</b>
1	Processor: Intel® Core™ i5-7300U Processor or equivalent with minimum SYSmark® 2018 Rating of 750 or higher
2	Graphic Card: Integrated graphics
3	Form Factor: - USFF (Ultra Small Form factor) System chassis volume less than One Litre
4	RAM: 8GB DDR4 – 2400MHz or above
5	Storage: 500 GB HDD – 7200 rpm
6	Display: 18.5" LED Monitor with HDMI, in-built-speaker,
7	Keyboard: Keyboard with numerical keypad (recommended)
8	Mouse: Optical Mouse
9	Webcam: Full HD Camera
10	Headphones with Mic
11	Dual Band Wireless Connectivity Min 800 Mbps
12	Bluetooth V4.2 or Higher
13	Ports: 4 USB 3.0 ports, dual high-definition display ports (HDMI 2.0/DP/thunderbolt 3.0 ports), High definition 8-channel audio through HDMI interface or through audio jack.
14	VPU: - Integrated or support for VPU - vision processing unit to accelerate AI machine vision applications.
<b>B</b>	<b>SOFTWARE SPECIFICATIONS</b>
1	Operating System: Any
2	Anti-Virus Activated
3	Internet Browser: Google Chrome
4	Productivity Suite: Any (Google+ Suite recommended)
5	Anaconda Navigator Distribution ( <a href="https://bit.ly/AI-installation-guide">https://bit.ly/AI-installation-guide</a> )
6	Conceptual installations ( <a href="https://bit.ly/AI-installation-guide">https://bit.ly/AI-installation-guide</a> )
7	Intel Open VINO tools
8	Python

**NOTE:** In keeping with the spirit of Recycle, Upcycle and Reuse, it is recommended to make use of any equipment/ devices/ accessories from the existing inventory in school.

## **TEACHER'S/ TRAINER'S QUALIFICATIONS:**

Qualification and other requirements for appointment of teachers/trainers for teaching this subject, on contractual basis should be decided by the State/ UT. The suggestive qualifications and minimum competencies for the teacher should be as follows:

<b>Qualification</b>	<b>Minimum Competencies</b>	<b>Age Limit</b>
Diploma in Computer Science/ Information Technology <b>OR</b> Bachelor's Degree in Computer Applications/ Science/ Information Technology (BCA, B. Sc. Computer Science/ Information Technology) <b>OR</b> Graduate with PGDCA <b>OR</b> DOEACC A Level Certificate.  The suggested qualification is the minimum criteria. However higher qualifications will also be acceptable.	<ul style="list-style-type: none"><li>• The candidate should have a minimum of 1 year of work experience in the same job role.</li><li>• S/He should be able to communicate in English and local language.</li><li>• S/He should have knowledge of equipment, tools, material, Safety, Health &amp; Hygiene.</li></ul>	<ul style="list-style-type: none"><li>• 18-37 years (as on Jan. 01 (year))</li><li>• Age relaxation to be provided as per Govt. rules</li></ul>

Teachers/Trainers form the backbone of Skill (Vocational) Education being imparted as an integral part of Rashtriya Madhyamik Shiksha *Abhiyan* (RMSA). They are directly involved in teaching of Skill (vocational) subjects and also serve as a link between the industry and the schools for arranging industry visits, On-the-Job Training (OJT) and placement.

These guidelines have been prepared with an aim to help and guide the States in engaging quality Teachers/Trainers in the schools. Various parameters that need to be looked into while engaging the Vocational Teachers/Trainers are mode and procedure of selection of Teachers/ Trainers, Educational Qualifications, Industry Experience, and Certification/ Accreditation.

The State may engage Teachers/Trainers in schools approved under the component of scheme of Vocationalisation of Secondary and Higher Secondary Education under RMSA in following ways:

- (i) Directly as per the prescribed qualifications and industry experience suggested by the PSS Central Institute of Vocational Education (PSSCIVE), NCERT or the respective Sector Skill Council (SSC).

**OR**

- (ii) Through accredited Vocational Training Providers accredited under the National Quality Assurance Framework (NQAF\*) approved by the National Skill Qualification Committee on 21.07.2016. If the State is engaging Vocational Teachers/Trainers through the Vocational Training Provider (VTP), it should ensure that VTP should have been accredited at NQAF Level 2 or higher.

---

*\* The National Quality Assurance Framework (NQAF) provides the benchmarks or quality criteria which the different organizations involved in education and training must meet in order to be accredited by competent bodies to provide government- funded education and training/skills activities. This is applicable to all organizations offering NSQF-compliant qualifications.*

---

The educational qualifications required for being a Teacher/Trainer for a particular job role are clearly mentioned in the curriculum for the particular NSQF compliant job role. The State should ensure that teachers/ trainers deployed in the schools have relevant technical competencies for the NSQF qualification being delivered. Teachers/Trainers preferably should be certified by the concerned Sector Skill Council for the particular Qualification Pack/Job role which he will be teaching. Copies of relevant certificates and/or record of experience of the teacher/trainer in the industry should be kept as record.

To ensure the quality of the Teachers/Trainers, the State should ensure that a standardized procedure for selection of (Vocational) Teachers/Trainers is followed. The selection procedure should consist of the following:

- (i) Written test for the technical/domain specific knowledge related to the sector;
- (ii) Interview for assessing the knowledge, interests and aptitude of trainer through a panel of experts from the field and state representatives; and
- (iii) Practical test/mock test in classroom/workshop/laboratory.

In case of appointment through VTPs, the selection may be done based on the above procedure by a committee having representatives of both the State Government and the VTP.

The State should ensure that the Teachers/ Trainers who are recruited should undergo induction training of 20 days for understanding the scheme, NSQF framework and Vocational Pedagogy before being deployed in the schools.

The State should ensure that the existing trainers undergo in-service training of 5 days every year to make them aware of the relevant and new techniques/approaches in their sector and understand the latest trends and policy reforms in vocational education.

The Headmaster/Principal of the school where the scheme is being implemented should facilitate and ensure that the (Vocational) Teachers/Trainers:

- Prepare session plans and deliver sessions which have a clear and relevant purpose, and which engage the students;
- Deliver education and training activities to students, based on the curriculum to achieve the learning outcomes;
- Make effective use of learning aids and ICT tools during the classroom sessions;
- Engage students in learning activities, which include a mix of different methodologies, such as project-based work, teamwork, practical and simulation-based learning experiences;
- Work with the institution's management to organise skill demonstrations, site visits, on-job trainings, and presentations for students in cooperation with industry, enterprises and other workplaces;
- Identify the weaknesses of students and assist them in up-gradation of competency;
- Cater to different learning styles and level of ability of students;
- Assess the learning needs and abilities, when working with students with different abilities
- Identify any additional support the student may need and help to make special arrangements for that support;
- Provide placement assistance

Assessment and evaluation of (Vocational) Teachers/Trainers is very critical for making them aware of their performance and for suggesting corrective actions. The States/UTs should ensure that the performance of the (Vocational) Teachers/Trainers is appraised annually. Performance based appraisal in relation to certain pre-established criteria and objectives should be done periodically to ensure the quality of the (Vocational) Teachers/Trainers.

Following parameters may be considered during the appraisal process:

- Participation in guidance and counseling activities conducted at Institutional, District and State level;
- Adoption of innovative teaching and training methods;
- Improvement in result of vocational students of Class X or Class XII;
- Continuous up-gradation of knowledge and skills related to the vocational pedagogy, communication skills and vocational subject;
- Membership of professional society at District, State, Regional, National and International level;
- Development of teaching-learning materials in the subject area;
- Efforts made in developing linkages with the Industry/Establishments;
- Efforts made towards involving the local community in Vocational Education
- Publication of papers in National and International Journals;
- Organisation of activities for promotion of vocational subjects;
- Involvement in placement of students/student support services.