

MAHARAJA AGRASEN MODEL SCHOOL
SYLLABUS PLAN FOR SESSION: (2024-2025)
CLASS – IX
ENGLISH LANGUAGE AND LITERATURE (Code No. 184)

PRESCRIBED TEXT- BOOKS:

BEEHIVE: LITERATURE READER

<https://ncert.nic.in/textbook.php?iemo1=0-9>

MOMENTS- SUPPLEMENTARY READER

<https://ncert.nic.in/textbook.php?keh1=0-14>

WORDS AND EXPRESSIONS- PART 1

<https://ncert.nic.in/textbook.php?iewe1=0-9>

E BOOK AVAILABLE ON: <https://ncert.nic.in/textbook.php>

REFERENCE BOOK- U LIKE/BBC

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.

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 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.

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
- Dramatizing and miming
- Using newspaper clippings
- Borrowing situations 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

NOTE: Teachers 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 outcomes, 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.

1. Reading Section: Reading for comprehension, critical evaluation, inference and analysis are to be tested.

2. Writing Section: All types of short and extended writing tasks will be dealt with.

3. Grammar: Grammar items mentioned in the syllabus will be taught and assessed.

INTERNAL ASSESSMENT

LISTENING AND SPEAKING COMPETENCIES

Assessment of Listening and Speaking Skills will be for 05 marks

Art-integrated projects based on activities like Role Play, Skit, Dramatization etc

| | |
|--------------|---|
| April | The Fun they Had (Beehive) The Road Not Taken (Beehive) The Sound of Music (Beehive) |
| | Tenses |
| | Diary Entry, Descriptive Paragraph |
| | Words And Expressions Unit 1 |
| | |
| May | The Lost Child (Moments) |
| | The Adventures Of Toto (Moments) |
| | Rain on the Roof (Beehive) |
| | The Little Girl (Beehive) |
| | |
| June | SUMMER VACATION |

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| | | |
| July | | A Truly Beautiful Mind (Beehive) My Childhood (Beehive) In the Kingdom of Fools (Moments) The Lake Isle of Innisfree (Beehive) |
| | | Modals Determiners |
| | | Words And Expressions Unit 2 |
| | | Wind(Beehive) |
| | | |
| August | | The Snake and the Mirror (Beehive) |
| | | A Legend of the Northland (Beehive) |
| | | The Happy Prince (Moments) |
| | | Story Writing |
| | | Words and Expressions- Unit 3,4,5 Subject Verb Concord |

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|------------------|---|
| September | Reported Speech |
| | No Men are Foreign (Beehive) |
| | Determiners Words and Expressions Unit 6 |
| | |
| October | Reach for the Top (Beehive) |
| | On Killing a Tree(Beehive) |
| | The Last Leaf (Moments) |
| | A House is not a Home (Moments) Words and Expressions-Unit 8 |
| | |
| November | Story Writing |
| | Kathmandu (Beehive) A Slumber did my Spirit Seal (Beehive) |
| | Descriptive paragraph |

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| | | Words and Expressions Unit 10- 11 |
| | | |
| December | | The Beggar (Moments) Ishwaran the Storyteller (Moments) |
| | | If I Were You (Beehive) |
| | | |
| January | | Revision |

Syllabus for Periodic test- 1

Reading Comprehension

Literature-The Fun they Had,The Road not Taken(Beehive)

Grammar- Tenses

Writing- Diary Entry

Syllabus for Periodic Test- 2

Reading Comprehension

Literature-A Truly Beautiful Mind (Beehive),My Childhood (Beehive),In the Kingdom of Fools (Moments),Rain on the Roof (Beehive)

Writing- Descriptive Paragraph

Grammar- Modals

Syllabus for Mid Term

Reading comprehension

LITERATURE

The Fun they Had (Beehive)

The Road Not Taken (Beehive)

The Sound of Music (Beehive)

The Lost Child (Moments)

The Adventures of Toto (Moments)

Rain on the Roof (Beehive)

The Little Girl (Beehive)

A Truly Beautiful Mind (Beehive)

My Childhood (Beehive)

In the Kingdom of Fools (Moments)

The Lake Isle of Innisfree (Beehive)

Wind(Beehive)

The Snake and the Mirror (Beehive)

A Legend of the Northland (Beehive)

The Happy Prince (Moments)

Grammar- Tenses,Subject Verb Concord, Modals, Determiners

Writing- Descriptive paragraph, Story writing

Syllabus for Periodic Test -3

Reading Comprehension

Literature-No Men are Foreign (Beehive),Reach for the Top (Beehive)The Last Leaf (Moments)

Grammar-Reported Speech,Tenses

Writing- Descriptive paragraph, Story writing

Annual Examination- Complete syllabus

हिंदी कोर्स - बी (कोड - 085)

राष्ट्रीय पाठ्यचर्या रूपरेखा (NCF) और राष्ट्रीय शिक्षा नीति (NEP 2020) के अनुरूप-

शिक्षण उद्देश्य-

- दैनिक जीवन में हिंदी में समझने-बोलने के साथ-साथ लिखने की क्षमता का विकास ।
- मातृभाषा के ज्ञान द्वारा छात्रों को स्वतंत्र और मौखिक रूप से अपने विचारों को अभिव्यक्त करने के योग्य बनाना ।
- विभिन्न विधाओं द्वारा कल्पनाशीलता, सृजनात्मक शक्ति का विकास करना ।
- औपचारिक विषयों और सन्दर्भों में बातचीत में भाग ले पाने की क्षमता का विकास ।
- संचार के विभिन्न माध्यमों (प्रिंट और इलेक्ट्रॉनिक) में प्रयुक्त हिंदी के विभिन्न रूपों को समझने की योग्यता का विकास ।
- कक्षा में बहुभाषिक, बहुसांस्कृतिक सन्दर्भों 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 ।

पाठ्य पुस्तकें :-

स्पर्श भाग 1 - एन.सी.ई.आर.टी

संचयन भाग 1- एन.सी.ई.आर.टी

व्याकरण प्रवेशक - कक्षा IX (कोर्स बी) - गीता पब्लिकेशन

अभ्यास हेतु अतिरिक्त पुस्तकें :-

1. Together with हिंदी - बी , Class IX, Manjulika Ghosh, Rachna Sagar Pvt. Ltd.
2. U-Like - मॉडल टेस्ट पेपर्स (अभ्यास कार्य प्रपत्र)

पाठ्यक्रम की पुस्तकें :-

स्पर्श भाग 1 - एन.सी.ई.आर.टी: (लिंक:
<https://ncert.nic.in/textbook.php?jhsp1=0-17>)

संचयन भाग 1 - एन.सी.ई.आर.टी (लिंक:
<https://ncert.nic.in/textbook.php?jhsy1=0-3>)

सी. बी. एस. ई. पाठ्यक्रम लिंक

(http://cbseacademic.nic.in/web_material/CurriculumMain24/Sec/Hindi B Sec 2024-25.pdf)

| हिंदी पाठ्यक्रम -ब (कोड सं. 085) | | |
|---|----------------------------------|--------|
| कक्षा 09वीं हिंदी - ब परीक्षा हेतु पाठ्यक्रम विनिर्देशन 2024-25 | | |
| खंड | | भारांक |
| क | अपठित बोध | 14 |
| ख | व्यावहारिक व्याकरण | 16 |
| ग | पाठ्यपुस्तक एवं पूरक पाठ्यपुस्तक | 30 |
| घ | रचनात्मक लेखन | 20 |

मासिक पाठ्यक्रम योजना

| महीना | पाठ्यपुस्तक | | व्याकरण |
|------------------|------------------|---------------------------|--|
| अप्रैल तथा मई | स्पर्श - गद्य | दुःख का अधिकार | शब्द-पद , अनुस्वार - अनुनासिक लेखन-कौशल - अनौपचारिक पत्र, अनुच्छेद- लेखन |
| | स्पर्श - पद्य | रैदास के पद | |
| | संचयन | गिल्लू | |
| जुलाई | स्पर्श - गद्य | एवरेस्ट- मेरी शिखर यात्रा | अनुस्वार-अनुनासिक उपसर्ग-प्रत्यय लेखन-कौशल- चित्र-वर्णन संवाद लेखन |
| | स्पर्श - पद्य | रहीम के दोहे | |
| | संचयन | स्मृति | |
| अगस्त | स्पर्श - गद्य | तुम कब जाओगे, अतिथि | स्वर संधि, अर्थ के आधार पर वाक्य भेद |
| | स्पर्श - पद्य | गीत-अगीत | अनुच्छेद-लेखन अनौपचारिक पत्र-लेखन |

| | संचयन | स्मृति | |
|---------|--------------------------------|---|--|
| सितम्बर | | मध्यावधिक परीक्षा | |
| अक्टूबर | स्पर्श - गद्य | वैज्ञानिक चेतना के वाहक चंद्रशेखर वेंकट रमन | अनौपचारिक पत्र, अनुच्छेद, संवाद लेखन |
| | स्पर्श - पद्य | अग्निपथ | |
| नवंबर | स्पर्श - गद्य | वैज्ञानिक चेतना के वाहक-चन्द्रशेखर वेंकट रमन | विराम चिह्न अनौपचारिक पत्र, अनुच्छेद, संवाद लेखन |
| | संचयन | कल्लू कुम्हार की उनाकोटी | |
| दिसंबर | स्पर्श - गद्य | शुक्र तारे के समान | विराम-चिह्न चित्र-वर्णन पुनरावृत्ति कार्य |
| | संचयन | मेरा छोटा-सा निजी पुस्तकालय | |
| जनवरी | स्पर्श- गद्य स्पर्श- | शुक्रतारे के समान नए इलाके में, खुशबू रचते हैं हाथ. | पुनरावृत्ति कार्य |

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| | पद्य | | |
| फरवरी - मार्च | पुनरावृत्ति कार्य एवं वार्षिक परीक्षा | | |

| | | | व्याकरण |
|-------------------------------|--|--|--|
| सामयिक परीक्षा - 1 | स्पर्श - गद्य स्पर्श - पद्य | दुःख का अधिकार रैदास के पद | अपठित गद्यांश, शब्द और पद अनौपचारिक पत्र-लेखन, चित्र वर्णन, अनुच्छेद- लेखन |
| सामयिक परीक्षा - 2 | स्पर्श - गद्य स्पर्श - पद्य संचयन | एवरेस्ट- मेरी शिखर यात्रा रहीम के दोहे गिल्लू | अपठित गद्यांश अनुस्वार-अनुनासिक उपसर्ग -प्रत्यय अनुच्छेद, अनौपचारिक पत्र संवाद लेखन |
| मध्यावधिक परीक्षा | स्पर्श - गद्य | दुख का अधिकार एवरेस्ट मेरी शिखर यात्रा | अपठित गद्यांश अनुस्वार-अनुनासिक शब्द और पद |

| | | | |
|-------------------------------|--|--|--|
| | स्पर्श - पद्य संचयन | तुम कब जाओगे, अतिथि रैदास के पद रहीम के दोहे गीत अगीत गिल्लू स्मृति | उपसर्ग -प्रत्यय अर्थ के आधार पर वाक्य भेद अनौपचारिक पत्र-लेखन, अनुच्छेद-लेखन संवाद-लेखन चित्र वर्णन |
| सामयिक परीक्षा - 3 | स्पर्श - गद्य स्पर्श - पद्य संचयन | वैज्ञानिक चेतना के वाहक - चंद्रशेखर वेंकटरमन अग्निपथ कल्लू कुम्हार की उनाकोटी | अपठित गद्यांश स्वर संधि अर्थ के आधार पर वाक्य भेद संवाद-लेखन अनौपचारिक पत्र लेखन |
| वार्षिक परीक्षा | सम्पूर्ण पाठ्यक्रम | | |

संस्कृतपाठ्यक्रम: (संप्रेषणात्मकम्)कोड : 119)

कक्षा नवमी (2024-2025)

संस्कृत भाषा शिक्षण के उद्देश्यः

- भाषा कौशल का विकास

- नैतिक मूल्यों का विकास
- संस्कृत भाषा तथा उसके साहित्य का संरक्षण करना
- संस्कृत भाषा को पढ़ने के लिए प्रोत्साहित करना तथा उसका विकास करना

पाठ्यपुस्तक -

- मणिका - १ (NCERT)
- अभ्यासपुस्तकम् १ (NCERT)

अभ्यास हेतु अतिरिक्त पुस्तकें

- Together with Sanskrit (Rachna Sagar)
- U-Like - मॉडल टेस्ट पेपर्स (अभ्यास कार्य प्रपत्र)
- Full Marks Sanskrit (Full Circle Education)

<https://ncert.nic.in/textbook.php>

http://www.cbseacademic.nic.in/Revisedcurriculum_2021.html

अप्रैल

मणिका भाग-१

- पाठ -१ अविवेकः परमापदां पदम्
- पाथेयम्

अभ्यास पुस्तकम् १

- चित्रवर्णन
- शब्दरूपाणि
- धातु रूपाणि
- उच्चारण स्थानानि
- संख्या
- प्रत्ययाः
- अपठित गद्यांश

मई

मणिका १

- पाठ ३ - विजयतां स्वदेशः

अभ्यासपुस्तकम् १

- प्रत्यय
- संख्या
- अव्ययानि
- स्वर संधि
- अपठित गद्यांश

जुलाई

- पाठ -४ - विद्यया भान्ति सद्गुणाः

- पाठ -५ कर्मणा याति संसिद्धिम्
- **संवाद पूर्ति**
- प्रत्यय
- पत्रलेखनम्
- चित्रवर्णनम्
- कारक व उपपद विभक्ति

अगस्त

- पाठ-६ तत् त्वम् असि
- मणिका भाग-१
- पाठ -१ अविवेकः परमापदां पदम्
 - पाथेयम्
 - पाठ ३ - **विजयतां स्वदेशः**
 - पाठ -४ - विद्यया भान्ति सद्गुणाः
 - पाठ -५ कर्मणा याति संसिद्धिम्
 - पाठ-६ तत् त्वम् असि
 - पाठ पुनरावृत्ति
 - प्रत्यय, संधि, अव्यय, कारक व उपपद विभक्ति (पुनरावृत्ति)
 - पत्रलेखनम्, **चित्र वर्णन, संवाद**

सितंबर

मध्यावधिक परीक्षा

अक्टूबर

- पाठ- ७ -तरवे नमोस्तु
- **पाठ- ८ -न धर्मवृद्धेषु वयः समीक्षयते**
- विसर्ग संधि
- शब्द रूपाणि
- धातु रूपाणि
- अपठित गद्यांश

नवंबर

- पाठ ९- कवयामि वयामि यामि
- पाठ- १० भारतीयं विज्ञानम्
- चित्रवर्णनम्, पत्रलेखनम्, संवाद
- प्रत्यय, अव्यय, संधि:

दिसंबर

पाठ- ११ भारतेनास्ति मे जीवनं जीवनम्

पुनरावृत्ति-

- पत्रलेखनम्
- चित्रवर्णनम्

- संवाद
- अपठित गद्यांश
- कारक व उपपद विभक्ति
- शब्द रूपाणि
- धातु रूपाणि
- प्रत्ययाः

जनवरी

- पाठ्यक्रम पुनरावृत्ति
- **पाठाः**
- **व्याकरण**

फ़रवरी

वार्षिक परीक्षा

सोमवार परीक्षा 1 -

अप्रैल

मणिका भाग-१

- पाठ -१ अविवेकः परमापदां पदं
- पाठ २ पाथेयम्

अभ्यास पुस्तकम् ?

- चित्रवर्णन
- शब्दरूपाणि
- धातु रूपाणि
- उच्चारण स्थानानि
- संख्या
- प्रत्ययाः
- अपठित गद्यांश

मध्यावधिक परीक्षा

मणिका भाग-१

- पाठ -१ अविवेकः परमापदां पदम्
- पाथेयम्
- पाठ ३ - **विजयतां स्वदेशः**
- पाठ -४ - विद्यया भान्ति सदगुणाः
- पाठ -५ कर्मणा याति संसिद्धिम्
- पाठ-६ तत् त्वम् असि

सोमवार परीक्षा- 2

- पाठ- ७ -तरवे नमोस्तु
- **पाठ- ८ -न धर्मवृद्धेषु वयः समीक्षयते**
- विसर्ग संधि
- शब्द रूपाणि
- धातु रूपाणि
- अपठित गद्यांश

- चित्र वर्णन

सोमवार परीक्षा- 3

- पाठ ९- कवयामि वयामि यामि
- पाठ- १० भारतीय विज्ञानम्
- चित्रवर्णनम्, पत्रलेखनम्, संवाद
- प्रत्यय, अव्यय, संधि:

वार्षिक परीक्षा

- संपूर्ण पाठ्यक्रम

MATHEMATICS (Code No. 041,241)

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 positive 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 such as calculators, computers, etc.
- 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.

LEARNING OUTCOMES

The learner—

- applies logical reasoning in classifying real numbers, proving their properties and using them in different situations.
- identifies/classifies polynomials among algebraic expressions and factorises them by applying appropriate algebraic identities.
- relates the algebraic and graphical representations of a linear equation in one or two variables and applies the concept to daily life situations.
- identifies similarities and differences among different geometrical shapes.
- derives proofs of mathematical statements particularly related to geometrical concepts, like parallel lines, triangles, quadrilaterals, circles, etc., by applying axiomatic approach and solves problems using them.
- finds areas of all types of triangles by using appropriate formulae and apply them in real life situations.
- constructs different geometrical shapes like bisectors of line segments, angles and triangles under given conditions and provides reasons for the processes of such constructions.
- develops strategies to locate points in a Cartesian plane.
 - identifies and classifies the daily life situations in which mean, median and mode can be used.
- analyses data by representing it in different forms like, tabular form (grouped or ungrouped), bar graph, histogram (with equal and varying width and length), and frequency polygon.
- calculates empirical probability through experiments and describes its use in words.

- derives formulae for surface areas and volumes of different solid objects like, cubes, cuboids, right circular cylinders/ cones, spheres and hemispheres and applies them to objects found in the surroundings.
- solves problems that are not in the familiar context of the child using above learning. These problems should include the situations to which the child is not exposed earlier.

Unit wise distribution of marks

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

PRESCRIBED TEXTBOOK:

Mathematics-Textbook for class- IX , NCERT Publication

<https://ncert.nic.in/textbook.php?iemh1=4-12>

REFERENCE BOOKS:

1. Mathematics Exemplar problems for class- IX ,NCERT Publication

<https://ncert.nic.in/exemplar-problems.php?ln=en>

2.Lab Manual Activities for class - IX

MONTHWISE SYLLABUS BREAK UP

APRIL

CHAPTER 1- NUMBER SYSTEM

- Introduction
- Irrational numbers
- Real numbers and their decimal expansion

- Representing irrational numbers on the number line
- Operations on real numbers
- Laws of exponents for real numbers
- Summary

LAB MANUAL ACTIVITY 1

CHAPTER 3- COORDINATE GEOMETRY

- Introduction
- Cartesian system

MAY

CHAPTER 4- LINEAR EQUATIONS IN TWO VARIABLES

- Introduction
- Linear equations
- Solutions of a linear equation
- plotting Ordered pairs and showing that they lie on a line
- Equations of a linear equations to x-axis and y-axis
- Summary

LAB MANUAL ACTIVITY 4

CHAPTER 12- HERON'S FORMULA

- Introduction
- Area of a triangle – by Heron's Formula
- Summary

PERIODIC TEST 1

PERIODIC TEST 1(SYLLABUS)-

CHAPTER 1- NUMBER SYSTEM

CHAPTER 3- COORDINATE GEOMETRY

JULY

CHAPTER 6-LINES AND ANGLES

- Introduction

- Basic terms and definitions
- Intersection lines and non-intersecting lines
- Pairs of angles
- Lines parallel to the same line
- Summary

CHAPTER 7- TRIANGLES

- Introduction
- Congruence of triangle
- Criteria for congruence of triangle
- Some properties of a triangle
- Some more criteria for congruence of triangle
- Summary

LAB MANUAL ACTIVITY 2

AUGUST

CHAPTER 14- STATISTICS

- Introduction
- Graphical representation of data
- Summary

CHAPTER 8-QUADRILATERALS

- Introduction
- Angle sum property of a quadrilaterals
- Types of quadrilaterals
- Properties of a parallelogram
- Another conditions for a quadrilateral to be a parallelogram
- The mid- point theorem
- Summary

LAB MANUAL ACTIVITY 6

SEPTEMBER

REVISION OF MID TERM SYLLABUS

MID TERM EXAM (SYLLABUS)-

CHAPTER 1- NUMBER SYSTEM

CHAPTER 3- COORDINATE GEOMETRY

CHAPTER 4- LINEAR EQUATIONS IN TWO VARIABLES

CHAPTER 6-LINES AND ANGLES

CHAPTER 7- TRIANGLES

CHAPTER 8-QUADRILATERALS

CHAPTER 12- HERON'S FORMULA

CHAPTER 14- STATISTICS

OCTOBER

CHAPTER 2- POLYNOMIALS

- Introduction
- Polynomials in one variable
- Zeros of a polynomials
- Remainder theorem
- Factorisation of polynomials
- Algebraic identities
- Summary

LAB MANUAL ACTIVITY 3

NOVEMBER

CHAPTER 2- POLYNOMIALS (Contd.....)

CHAPTER 5-INTRODUCTION TO EUCLID'S GEOMETRY

- 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.

PERIODIC TEST 2(SYLLABUS)-

CHAPTER 2- POLYNOMIALS

DECEMBER

CHAPTER 13- SURFACE AREA AND VOLUMES

- Introduction
- Surface area of a right circular cone
- Surface area of a sphere and Hemisphere
- Volume of a right circular cone
- Volume of a sphere and Hemisphere
- Summary

PERIODIC TEST 3(SYLLABUS)-

CHAPTER 5-INTRODUCTION TO EUCLID'S GEOMETRY

CHAPTER 13- SURFACE AREA AND VOLUMES

JANUARY

CHAPTER 10-CIRCLES

- Introduction
- Angle subtended by a chord at a point and center of the circle
- Perpendicular from the center to a chord
- Equal chords and their distances from the center
- Angle subtended by an arc of a circle
- Cyclic quadrilaterals

Summary

**LAB MANUAL
ACTIVITY 7,8**

FEBRUARY-MARCH

REVISION OF WHOLE SYLLABUS

ANNUAL EXAMS

ANNUAL EXAMS(SYLLABUS)-

CHAPTER 1- NUMBER SYSTEM

CHAPTER 2- POLYNOMIALS

CHAPTER 3- COORDINATE GEOMETRY

CHAPTER 4- LINEAR EQUATIONS IN TWO VARIABLES

CHAPTER 5-INTRODUCTION TO EUCLID'S GEOMETRY

CHAPTER 6-LINES AND ANGLES

CHAPTER 7- TRIANGLES

CHAPTER 8-QUADRILATERALS

CHAPTER 9-CIRCLES

CHAPTER 10- HERON'S FORMULA

CHAPTER 11- SURFACE AREA AND VOLUMES

CHAPTER 12- STATISTICS

Science (Code No.086)

UNIT WISE DISTRIBUTION OF MARKS

| 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 |
| | Total | 80 |
| | Internal assessment | 20 |
| | Grand Total | 100 |

COURSE BOOK : 1. Science - Textbook for class IX - NCERT Publication

<https://ncert.nic.in/textbook.php?iesc1=0-12>

2. Laboratory Manual(Science)-Class IX by Vivechan Publications

REFERENCE BOOKS

1. Chemistry for class 9 by Lakhmir Singh & Manjeet Kaur

2. Xam Idea (Science) by VK Global Publications.

3. NCERT Exemplar Science

<https://ncert.nic.in/exemplar-problems.php?ln=en>

Science is a body of knowledge based on experiment, observation and inference, which is judgment based on evidence. Through science teaching, children are required to develop certain scientific ways of thinking as they work. 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.

LEARNING OUTCOMES

The learner

- Differentiates and classifies materials, objects, organisms, phenomena, and processes, based on properties or characteristics.
- Plans and conducts investigations or experiments to arrive at and verify the facts, principles, phenomena or to seek answers to queries on their own.
- relates processes and phenomena with causes and effects.

- explains processes and phenomena, such as, functions of different organelles, spread of diseases and their prevention, effect of force on the state of motion of objects, action and reaction, rotation and revolution of planets and satellites, conservation laws.
- calculates using the data given, such as, distance, velocity, speed, frequency, work done, number of moles in a given mass of substance, concentration of solution in terms of mass by mass percentage of substances.
- draws labeled diagrams, flow charts, concept maps, graphs.
- analyses and interprets graphs and figures.
- uses scientific conventions, symbols, and equations to represent various quantities, elements, and units.
- applies learning to hypothetical situations, such as, weight of an object at moon, weight of an object at equator and poles.
- applies scientific concepts in daily life and solving problems.
- derives formulae, equations, and laws.
- exhibits values of honesty, objectivity, rational thinking, freedom from myths, superstitious beliefs while taking decisions, respect for life.
- applies the interdependency and interrelationship in the biotic and abiotic factors of environment to promote conservation of environment.

MONTHLY SYLLABUS PLAN

APRIL

PHYSICS

CHAPTER 8: 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, derivation of equations of motion by graphical method; elementary idea of uniform circular motion.

CHEMISTRY

CHAPTER: -1 (MATTER IN OUR SURROUNDINGS)

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.

LAB ACTIVITIES

1. To carry out the following reactions and classify them as physical or chemical changes.

- a. Iron with copper sulphate solution in water.
- b. Burning of magnesium in air.
- c. Zinc with dilute sulphuric acid
- d. Heating of copper sulphate.
- e. Reaction of Sodium sulphate with barium chloride in the form of their solutions in water.

BIOLOGY

CHAPTER-5 (THE FUNDAMENTAL UNIT OF LIFE)

Cell - Basic Unit of life : Cell as a basic unit of life; prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, nucleus, chromosomes - basic structure.

LAB ACTIVITIES

1. a) To prepare a stained temporary mount of onion peel and to record observations and draw their labeled diagram.

MAY

PHYSICS

CHAPTER 9 Force and Newton's laws : Force and Motion, Newton's Laws of Motion, Action and Reaction forces.

LAB ACTIVITY

1. Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.

CHEMISTRY

CHAPTER-1 (MATTER IN OUR SURROUNDINGS) contd.

CHAPTER -2(IS MATTER AROUND US PURE?)

Elements, compounds and mixtures. **LAB ACTIVITY**

2. To determine the melting point of ice and the boiling point of water.

BIOLOGY

CHAPTER-5 THE FUNDAMENTAL UNIT OF LIFE contd...

Cell organelles and cell inclusions; chloroplast, mitochondria, vacuoles, endoplasmic reticulum, Golgi apparatus, Cell division- mitosis and meiosis.

LAB ACTIVITIES

1.b)To prepare stained temporary mount of human cheek cells and to record observations and draw their labeled diagram.

JULY

PHYSICS

CHAPTER 9 Force and Newton's laws(Contd...) : Inertia of a body, Inertia and mass, Momentum, Force and Acceleration.

Work, energy and power: Work done by a Force, Energy, power.

LAB ACTIVITIES

2. (a) Establishing the relation between the loss in weight of a solid when fully immersed in tap water

CHEMISTRY

CHAPTER : 2 (IS MATTER AROUND US PURE) contd.

Heterogeneous and homogeneous mixtures,colloids and suspensions. Physical and chemical changes.

LAB ACTIVITY

3. To prepare 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 of starch in water and egg albumin in water and distinguish between these on the basis of i) transparency ii) filtration criterion iii) stability

BIOLOGY

CHAPTER-6 TISSUES

Tissues, Organs, Organ System, Organism,Structure and functions of animal and plant tissues (four types in animals; meristematic and permanent tissues in plants.

LAB ACTIVITIES

2. Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants from prepared slides. Drawing of their labelled diagrams.

AUGUST

PHYSICS

CHAPTER 11

Work, energy and power: Work done by a Force, Energy, power.

LAB ACTIVITY

2 (b) Establishing the relation between the loss in weight of a solid when fully immersed in strongly salty water, with the weight of water displaced by it by taking at least two different solids.

CHEMISTRY

CHAPTER : 2 (IS MATTER AROUND US PURE) contd..

LAB ACTIVITY

4. To prepare a) a mixture and b) a compound using iron filings and sulphur powder, and distinguish between these on the basis of:

i. appearance, i.e., homogeneity and heterogeneity ii. behaviour towards magnets;
iii. behaviour towards carbon disulphide as a solvent. iv. effect of heat.

BIOLOGY

CHAPTER-6 TISSUES contd.

LAB ACTIVITY

2. Identification of striped, smooth, and cardiac muscle fibers and nerve cells in animals from prepared slides. Drawing of their labelled diagrams.

SEPTEMBER

PHYSICS

CHAPTER-11 Work, energy and power (Contd...): Kinetic and Potential Energy (Excluding Commercial unit of energy).

CHEMISTRY

Revision of chapter 1 and 2

BIOLOGY

CHAPTER-12 IMPROVEMENT IN FOOD RESOURCES

Plant and animal breeding and selection for quality improvement and management; use of fertilizers, manures; protection from pests and diseases; organic farming.

OCTOBER

PHYSICS

Chapter-11 Work, energy, and power (Contd...): Law of conservation of energy.

CHEMISTRY

CHAPTER-3 (ATOMS & MOLECULES)

Particle nature and their basic units : Atoms and molecules,Laws of chemical combination,

LAB ACTIVITY

5. To verify the law of conservation of mass in a chemical reaction.

BIOLOGY

CHAPTER 12- IMPROVEMENT IN FOOD RESOURCES (contd....)

Cattle and poultry farming

LAB ACTIVITY

2. Identification of striped, smooth and cardiac muscle fibers and nerve cells in animals from prepared slides. Drawing of their labelled diagrams.

NOVEMBER

PHYSICS

Gravitation:Universal Law of Gravitation, Force of Gravitation of the earth (gravity).Acceleration due to gravity.Mass and weight , weightlessness .

CHEMISTRY

CHAPTER : 3 (ATOMS & MOLECULES) contd.

Atomic and molecular masses; Chemical formula of common compounds

CHAPTER -4 (STRUCTURE OF ATOM)

Electrons, protons and neutrons, Valency, Atomic Number and Mass Number, Isotopes and Isobars.

LAB ACTIVITY

5. To verify the law of conservation of mass in a chemical reaction.

BIOLOGY

CHAPTER 12- IMPROVEMENT IN FOOD RESOURCES (contd....)

Fish farming and bee keeping

DECEMBER

PHYSICS

CHAPTER 10 Floatation

Thrust And Pressure,Archimedes Principle And Buoyancy

Sound -> Nature Of Sound And Its Propagation In Various Media

CHEMISTRY

CHAPTER -4 (STRUCTURE OF ATOM) contd...

BIOLOGY

CHAPTER 12- IMPROVEMENT IN FOOD RESOURCES (contd....)

LAB ACTIVITY

Identification of striped, smooth and cardiac muscle fibers and nerve cells in animals from prepared slides. Drawing of their labelled diagrams.

JANUARY

PHYSICS

CHAPTER :SOUND (CONTINUED)

Nature Of Sound And Its Propagation,Speed Of Sound,Range Of Hearing In Human,Ultrasound,Reflection of Sound,Echo

Revision

CHEMISTRY

CHAPTER -4 (STRUCTURE OF ATOM) contd.

Revision

BIOLOGY

CHAPTER 12- IMPROVEMENT IN FOOD RESOURCES (contd....)

FEBRUARY

REVISION FOR ANNUAL EXAMS

EXAMWISE-SYLLABUS BREAKUP

PERIODIC TEST 1

CHAPTER 8: Motion

CHAPTER 5:The fundamental unit of life

CHAPTER1: MATTER IN OUR SURROUNDINGS

MID TERM EXAMINATION

CHAPTER 8: Motion

CHAPTER 9: Force and Newton's laws

CHAPTER 5: The fundamental unit of life

CHAPTER 6: Tissues

CHAPTER 1: MATTER IN OUR SURROUNDINGS

CHAPTER 2: IS MATTER AROUND US PURE + Lab Activities 1,2,3,4.

PERIODIC TEST 2

CHAPTER 11: Work Power Energy

CHAPTER 2: IS MATTER AROUND US PURE ?

CHAPTER 6: Tissues

PERIODIC TEST 3

CHAPTER 12: Improvement in food resources

CHAPTER 10 : Gravitation

CHAPTER: 3 ATOMS & MOLECULES

ANNUAL EXAMINATION

CHAPTER 8: Motion

CHAPTER 9: Force and Newton's laws

CHAPTER 11: Work, energy and power

CHAPTER 10 : Gravitatin

CHAPTER 12 : S

CHAPTER: 1 MATTER IN OUR SURROUNDINGS

CHAPTER: 2 IS MATTER AROUND US PURE

CHAPTER: 3 ATOMS & MOLECULES

CHAPTER: 4 STRUCTURE OF ATOM + Lab Activities 1,2,3,4,5

CHAPTER 5 :The fundamental unit of life

CHAPTER 6: Tissues

CHAPTER 12: Improvement in food resources

SOCIAL SCIENCE (Code No. 087)

OBJECTIVES:

The main objectives of this syllabus are to:

- develop an understanding of the processes of change and development-both in terms of time and space, through which human societies have evolved
 - make learners realize 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 with appropriate connections to world development
 - deepen knowledge about and understanding of India's freedom struggle and of the values and ideals that it represented, and to develop an appreciation of the contributions made by people of all sections and regions of the country
 - 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, their interactive processes and effects on the future quality of people's lives
 - 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
 - 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
- develop scientific temperament by promoting the spirit of enquiry and following a rational and objective approach in analysing and evaluating 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' problems
- develop qualities clustered around the personal, social, moral, national and spiritual values that make a person humane and socially effective.

LEARNING OUTCOMES-

.It enables the learners to

- recognises and retrieves facts, figures and narrate processes, for example, a)locates places, states, union territories, and other physical features on the map of India.

- b)recognises and describes different physical features, types of forests, seasons, etc.
- c)describes important terms in Geography such as, standard meridian, drainage basin, water divide, monsoon, weather, climate, flora, fauna, population density, etc.
- d)estimates annual growth rate.
- e)defines simple economic terms such as, poverty, literacy, unemployment, head-count ratio, food security, exports and imports, etc.
- f)lists various factors of production.
- classifies and compares events, facts, data, and figures, for example,
 - a)classifies physical features in the surroundings and compare them with physical features of other places;
 - b)compares different data, such as, population and rainfall;
 - c)compares the course of events leading to important revolutions in the world such as, French and Russian Revolutions;
 - d)distinguishes different types of governments operating across the world;
- explains cause and effect relationship between phenomena, events, and their occurrence, for example,
 - a)examines factors causing pollution and their impact on people’s lives;
 - b)explains factors affecting the course of a river, climate, population distribution, flora and fauna of a region.
 - c)explains the causes and effects of various revolutions.

NCERT Textbooks:

GEOGRAPHY- India-Land and the People

HISTORY-India and the Contemporary World-I

ECONOMICS-Understanding Economic Development –I

POLITICAL SCIENCE-Democratic Politics I

Reference Book:

Xam Idea- V.K Global Publications Pvt. Ltd.

E-references:

<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>

Chapterwise marks distribution:-

History:(25 marks)

Chapter 1-The French Revolution (7 marks)

Chapter 2-Socialism in Europe and the Russian Revolution. (9 marks)

Chapter 3-Nazism and the Rise of Hitler.(6 marks)

Chapter 4-Forest Society and Colonialism.(1 mark)

(To be evaluated in the annual examination)

Chapter 5- Pastoralists in the modern World.

(To be assessed in the Periodic assessment only)

Map-(2 marks)

Geography:(25 marks)

Chapter 1 - India – Size and Location (4 Marks)

Chapter 2- Physical Features of India (5 marks)

Chapter 3- Drainage (4 Marks)

Chapter 4- Climate (5 marks)

Chapter 5- Natural Vegetation and Wildlife (1 Marks)

(Map to be evaluated in the annual examination.)

Chapter 6 -Population (3 marks)

Map-(3 marks)

Political Science:(20 marks)

Chapter 1-What is Democracy?

Why Democracy?

Chapter 2-Constitutional Design

Chapter 3-Electoral Politics

Chapter 4-Working of Institutions

Chapter 5-Democratic Rights

Economics:(20 marks)

Chapter 1-The story of village Palampur

(To be assessed in the Periodic assessment only)

Chapter 2-People as Resource

Chapter-3 Poverty as a Challenge

Chapter -4-Food Security in India

APRIL:

GEOGRAPHY: Chapter 1 - India – Size and Location

HISTORY: CHAPTER-1: The French Revolution

ECONOMICS: CHAPTER -1: The economic story of Palampur

POLITICAL SCIENCE: CHAPTER- 1: What is Democracy? Why Democracy?

MAY

GEOGRAPHY: CHAPTER -2: Physical features of India

HISTORY: CHAPTER -1: The French Revolution

POLITICAL SCIENCE: CHAPTER -2 : Why Democracy? (Contd.)

JULY

GEOGRAPHY: CHAPTER -2: Physical features of India (Contd.)

HISTORY: CHAPTER -2: Socialism in Europe and Russian Revolution.

ECONOMICS: CHAPTER -2: People as a resource

AUGUST

REVISION FOR MID TERM EXAMS

GEOGRAPHY: CHAPTER -3: Drainage

HISTORY: CHAPTER -3: Nazism and the Rise of Hitler.

ECONOMICS: CHAPTER -2: People as a resource

POLITICAL SCIENCE:- Chapter-2 : Constitutional Design

SEPTEMBER

GEOGRAPHY: CHAPTER -4: Climate

HISTORY: CHAPTER -3 : Nazism and the rise of Hitler .

POLITICAL SCIENCE : CHAPTER-3 : Electoral Politics

ECONOMICS: Chapter3: Poverty a Challenge

OCTOBER

GEOGRAPHY: CHAPTER -4: Climate (Contd.)

HISTORY: CHAPTER -4:Forest Society and Colonialism.

POLITICAL SCIENCE - CHAPTER -4: Electoral politics .

NOVEMBER

GEOGRAPHY: CHAPTER -6: Population

HISTORY: CHAPTER -4 :Forest Society and Colonialism.

POLITICAL SCIENCE - CHAPTER -4: Working of Institutions

CHAPTER - 5- Democratic Rights

DECEMBER

GEOGRAPHY: CHAPTER -6: Population (Contd.)

HISTORY: CHAPTER - 5: Pastoralists in the modern World.

ECONOMICS: Chapter-4: Food Security in India

JANUARY

GEOGRAPHY: CHAPTER -6: Population (Contd.)

HISTORY: CHAPTER - 5: Pastoralists in the modern World.

ECONOMICS- CHAPTER-4- Food Security in India (cont.)

PERIODIC TEST-I (APRIL)

GEOGRAPHY: CHAPTER-1: India-Size and Location

HISTORY: CHAPTER-1: The French Revolution

ECONOMICS: CHAPTER 1: The economic story of Palampur

POLITICAL SCIENCE : CHAPTER -1: What is Democracy? Why Democracy?

PERIODIC TEST-II (AUGUST)

GEOGRAPHY: CHAPTER -2: Physical features of India

HISTORY: CHAPTER -2: Socialism in Europe and Russian Revolution

POLITICAL SCIENCE : CHAPTER -3: Electoral politics in Democracy

ECONOMICS : CHAPTER : 3 : Poverty as a challenge

MID TERM EXAMINATIONS (SEPTEMBER)

GEOGRAPHY: CHAPTER-1: India-Size and Location

CHAPTER -2: Physical features of India

CHAPTER -3: Drainage

HISTORY: CHAPTER -1: The French Revolution

CHAPTER -2: Socialism in Europe and the Russian revolution

CHAPTER -3 : Nazism and the rise of Hitler .

POLITICAL SCIENCE : CHAPTER -1: Why Democracy?

CHAPTER -2 : Constitutional Design

ECONOMICS: CHAPTER -2: People as a resource

PERIODIC TEST-III (OCTOBER)

GEOGRAPHY: CHAPTER -4: Climate

HISTORY: CHAPTER -5: Pastoralists in the modern World.

POLITICAL SCIENCE : CHAPTER -3: Electoral politics in Democracy

ECONOMICS : CHAPTER : 3 : Poverty as a challenge

ANNUAL EXAMINATION: (FEBRUARY)

Whole Syllabus as per the CBSE curriculum.

ARTIFICIAL INTELLIGENCE (SUB. CODE 417) CLASS – IX SESSION 2024-2025

LEARNING OUTCOMES:

Learners will be able to

- Identify and appreciate Artificial Intelligence and describe its applications in daily life.
- 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.
- Imagine, examine and reflect on the skills required for futuristic job opportunities.
- Unleash their imagination towards smart homes and build an interactive story around it.
- Understand the impact of Artificial Intelligence on Sustainable Development Goals to develop responsible citizenship.
- Research and develop awareness of skills required for jobs of the future.
- Gain awareness about AI bias and AI access and describe the potential ethical considerations of AI.
- Develop effective communication and collaborative work skills.
- Get familiar and motivated towards Artificial Intelligence and Identify the AI Project Cycle framework.
- 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.
- Brainstorm on the ethical issues involved around the problem selected.
- 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.
- Use various types of graphs to visualize acquired data.
- Understand, create and implement the concept of Decision Trees.
- Understand and visualize the computer's ability to identify alphabets and handwritings.
- Understand and appreciate the concept of Neural Network through gamification and learn basic programming skills through gamified platforms.
- Acquire introductory Python programming skills in a very user-friendly format.
-

Text Book : No Text Book, Students will be provided with support material and notes.

All activity and theory content is prepared through CBSE Support material.

CBSE Manual for class 9: [AI curriculum handbook](#)

Python Content Manual: [PYTHON CONTENT MANUAL](#)

Employability Skills: [Employability Skills | CBSE Academics](#)

NoteBook: Single notebook 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 subjects 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 2024-2025)

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

| Unit | Maximum Marks |
|--|---------------|
| Employability Skills | |
| Unit 1: Communication Skills-I | 2 |
| Unit 2: Self-Management Skills-I | 2 |
| Unit 3: ICT Skills-I | 2 |
| Unit 4: Entrepreneurial Skills-I | 2 |
| Unit 5: Green Skills-I | 2 |
| Total | 10 |
| Subject Specific Skills | |
| 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 |
| Total | 40 |
| Practical Work | |
| Unit 4: Introduction to Python Practical File (minimum 15 programs) | 15 |
| Practical Examination <ul style="list-style-type: none"> • Simple programs using input and output function • Variables, Arithmetic Operators, Expressions, Data Types • Flow of control and conditions • Lists * Any 3 programs based on the above topics | 15 |
| Viva Voce | 5 |
| Total | 35 |

| | |
|---|----|
| Project Work / Field Visit / Student Portfolio * <i>relate it to Sustainable Development Goals (Any one has to be done)</i> | 15 |
| Total | 50 |

MONTHWISE UNITS/TOPICS FOR CLASS IX:

| UNIT | THEORY | PRACTICAL/ ACTIVITY (Shaded portion to be pasted in practical file) | Notes | |
|---|---|---|---|---|
| APRIL | | | | |
| UNIT 1: INTRODUCTI ON TO ARTIFICIAL INTELLIGEN CE (AI) | Introduction to AI and setting up the context of the curriculum | | https://www.pythonforall.com/inspire-and-acquire | |
| | Applications of AI | Dream Smart Home idea • Learners to design a rough layout of floor plan of their dream smart home. | | |
| | Domains of AI | 1. Game 1: Rock, Paper and Scissors (based on data) (https://next.rockpaperscissors.ai/) | | https://www.pythonforall.com/domainsofai |
| | | 2. Game 2: Semantris (based on Natural Language Processing - NLP) | | |
| | | https://research.google.com/semantris/ | | |
| | | 3. Game 3: Quick Draw (based on Computer Vision - CV) | | |
| | | https://quickdraw.withgoogle.com/ | | |
| MAY | | | | |
| UNIT 1: INTRODUCTI ON TO ARTIFICIAL INTELLIGEN CE (AI) | Introduction to UN Sustainable Development Goals | AI for Ocean- “helping to conserve oceans is by fighting plastic pollution with machine learning.” https://code.org/oceans | | |

| | | | |
|---|--|---|---|
| | To research and develop awareness of skills required for jobs of the future. | Future of AI Job Ad Creating activity 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. Platform: Adobe Express | |
| | To imagine, examine and reflect on the skills required for the futuristic opportunities. | | |
| JULY | | | |
| UNIT 1: INTRODUCTION TO ARTIFICIAL INTELLIGENCE (AI) | AI Ethics https://www.pythonforall.com/copy-of-domains-of-ai | Students to explore Moral Machine https://www.moralmachine.net/ to understand more about the impact of ethical concerns | https://www.pythonforall.com/aiethics |
| Unit 2: AI Project Cycle | Problem Scoping | Brainstorm around the theme provided and set a goal for the AI project and prepare 4W canvas | https://www.pythonforall.com/project-cycle |
| AUGUST | | | |
| Unit 2: AI Project Cycle | Data Exploration | Top 10 Song Prediction: Identify the data features, collect the data and convert into graphical representation. | |
| | | Collect and store data in a spreadsheet and create some graphical representations to understand the data effectively. | |
| | Data Modeling | Learning-based Activity: https://teachablemachine.withgoogle.com/ | |
| | | To design a Decision Tree based on the data given. | |
| SEPTEMBER | | | |
| UNIT 3: NEURAL NETWORK | Introduction to neural network | | https://www.pythonforall.com/neuralnetwork |
| OCTOBER | | | |

| | | | |
|--|--|---|--|
| UNIT 3: NEURAL NETWORK | Relation between the neural network and nervous system in human body | | |
| | Describing the function of neural network. | | |
| UNIT 4: INTRODUCTI ON TO PYTHON | Learn basic programming skills through gamified platforms. | Introduction to programming using Online Gaming portals like Code Combat. | |
| | | https://codecombat.com/ | |
| NOVEMBER | | | |
| UNIT 4: INTRODUCTI ON TO PYTHON | Introduction to Python Language | Any 5 programs based on the given topics | |
| | Variables, Data Types | | |
| | Operators and Expressions | https://www.pythonforall.com/operators | |
| | If statement | https://www.pythonforall.com/if-statement | |
| DECEMBER | | | |
| | | Any 10 programs based on Loops and Lists | |
| UNIT 4: INTRODUCTI ON TO PYTHON | Python Loops : for and while | https://www.pythonforall.com/loop | |
| | Simple operations using Python Lists | https://www.pythonforall.com/python-collections | |
| JANUARY | | | |
| Project Work | Create an AI Model using tools like- | | |
| | <ul style="list-style-type: none"> ○ Teachable Machine (https://teachablemachine.withgoogle.com/) ○ Machine Learning For Kids (https://machinelearningforkids.co.uk/) 2. Choose an issue that pertains to the objectives of sustainable development and carry out the actions listed below. | | |
| | ○ To understand more about the problem identified, create a 4Ws problem canvas. | | |
| | ○ Identify the data features and create a system map to understand relationship between them | | |
| | ○ Visualize the data collected graphically (Spreadsheet software to be used store and visualize the data) | | |
| ○ Suggest an AI enabled solution to it (Prototype/Research Work) | | | |

Exam Wise Syllabus :

1. Mid Term :

UNIT 1: INTRODUCTION TO ARTIFICIAL INTELLIGENCE (AI)
Unit 2: AI Project Cycle

2. Annual Term:

UNIT 1: INTRODUCTION TO ARTIFICIAL INTELLIGENCE (AI)
Unit 2: AI Project Cycle
UNIT 3: NEURAL NETWORK
UNIT 4: INTRODUCTION TO PYTHON

HINDUSTANI MUSIC VOCAL (2024-2025)

(Code-034)

INTERNAL ASSESSMENT

20 Marks

1. PROJECT FILE

05 Marks

1. Writing in notation the musical compositions of all ragas prescribed in the syllabus unidentifying the Tala of Musical compositions.

2. Drawing and labelling the various parts of Tanpura.

3. Description and writing the notation of prescribed Talas with Layakaries (Thah, Dugun, Tigun, Chagun)

4. Identifying and interviewing neighbourhood artist.

5. Knowledge about any one percussion artist.

6. Knowledge about any one percussion artist.

2. PROJECT

05 Marks

SUGGESTIVE TOPICS*INTERRELATIONSHIP OF THE FOLLOWING;

1. Music and physics (Spund - Frequency, Vibration, pitch, intensity, timbre)

2. Music and Mathematics (Mathematical Calculation of laya)

3. Music and History (Development of music during the medieval period)

4. Music and Geography (Development of Music in varied cultural zones e.g. songs, instruments in mountainous or hilly areas)

5. Music and languages - Dialects in Folk Music

*Students may choose any one of the above topics or any other topic for project in consultation with the teacher.

3. Periodical practical test, restricted to three in an academic year.

10 Marks

Average of best two tests to be taken for final marks submission. Each test will examine a candidate for one Raga from the syllabus, one Devotional Song / Folk song and two Talas.