

SYLLABUS (2022-23)
CLASS VII

CONTENTS

S.No. Subject

1. English
2. Hindi
3. French
4. Sanskrit
5. Mathematics
6. Science
7. Social Science
8. Computer Science
9. General Knowledge
10. Art Education
11. Physical Education & Health Education

ENGLISH

Learning Objectives -

Reading

To enable the students to -

1. read silently at varying speed depending on the purpose of reading.
2. recognise the organisation of a text.
3. identify the main points of a text.
4. read extensively on their own.

Writing

To enable the students to -

1. express ideas in clear and grammatically correct English, using appropriate punctuation and cohesion devices.
2. write a clear description.
3. expand notes into a piece of writing.
4. use an appropriate style and format to write letters (formal and informal), articles etc.; monitor, check and revise written work.

Listening

To enable the students to -

1. adopt different strategies according to the purpose of listening (e.g. for pleasure, for general interest, for specific information).
2. understand and respond appropriately to directive language (e.g. instruction, advice, request and warning).
3. understand and interpret messages conveyed in person or by telephone.

Speaking

To enable the students to -

1. operate intelligibly using appropriate word stress, sentence series and intonation pattern.
2. narrate incidents and events, real and imaginary, in a logical sequence.

Textbooks

1. Enhanced English Alive Coursebook- 7 (MCB)
2. Enhanced English Alive Literature Reader- 7 (LR)
3. Collins English Grammar and Composition-7
4. Heidi by Johanna Spyri

General Note:

A thorough reading of the text on regular basis is a must as questions from within the lesson will be given in the exams/tests. Questions in the exams are likely to be different from those attempted in the notebooks.

FIRST TERM

Reading Comprehensions

- MCB -
1. The Shopping List Mystery
 2. Maryam Mirzakhani: Leading the Way
 3. The Gift to Sing

Writing Skills

1. Notice Writing
2. Poster Making
3. Informal Letter Writing
4. Paragraph Writing

Grammar

1. Kinds of Sentences: Meaning
2. Types of Sentences: Structure
3. Nouns
4. Adjectives
5. Pronouns
6. Transitive and Intransitive Verbs
7. Agreement of Subject and Verb
8. Primary and Modal Auxiliaries
9. Expressing the Present
10. Expressing the Past
11. Expressing the Future
12. Active and Passive Voice
13. Test 1

Literature and Long Reading Text

- LR -
1. The Ballad of Semerwater (Poem)
 2. Excuses, Excuses (Poem)
- MCB-
3. Try Again (Poem)
- LR -
4. The New Teacher
 5. The Wrong House
- MCB -
6. Flames in the Forest
 7. Goodbye, Pasha Begum!

N.B.: Diary entry from the following chapter is to be done in class and assessed in literature section as long answer (80-100 words)

Flames in the Forest

Heidi - Chapters 1 to 7

Note: There will be separate assessment of listening and speaking skills.

Listening Activities to be taken up in the term –

MCB-

1. The Shopping List Mystery (pg. 26)
2. Flames in the Forest (pg. 57)
3. Maryam Mirzakhani: Leading the Way (pg.117)
4. Goodbye, Pasha Begum! (pg. 139)

Creative Writing (Expressions)

1. Read the chapter, 'A Mad Tea Party'. Imagine you are the Queen of Hearts. Write a letter inviting your friends to a tea party. The party should have an exciting theme. (LR).
2. The chapter, 'The Quest for Extraterrestrial Life' (MCB) is about the life outside Earth. Imagine you have returned from a space expedition. Today is your first day on the Earth after the voyage. Write a diary entry expressing your emotions.
3. Read the poem, 'Birds of a Feather' (MCB) which is about the different aspects of two birds- the Grackle and the Stork. Imagine you are a bird trapped in a zoo. Write a paragraph expressing your thoughts when you see the other birds flying freely in the sky.

SECOND TERM

Reading Comprehensions

- MCB - 1. Back from the Brink
2. Star Trek- The Voyage Home

Writing Skills

1. Display Advertisement
2. Message Writing
3. Article Writing
4. Formal Letter Writing

Grammar

1. Adverbs
2. Prepositions
3. Conjunctions
4. Determiners and Quantifiers
5. Articles
6. Direct and Indirect Speech
7. Finite and Non-Finite Verbs
8. Phrases
9. Clauses
10. Transformation and Synthesis
11. Punctuation
12. Grammar on the Go
13. Words: A Mixed Bag
14. Test 2
15. Test 3

Literature and Long Reading Text

- LR - 1. It Couldn't Be Done (Poem)
2. Nightfall in the City of Hyderabad (Poem)
- MCB - 3. Teachers (Poem)
- L.R - 4. How Far is the River
5. A Christmas Carol
- MCB - 6. Fourteen - I
7. Fourteen- II
8. The Diary of a Space Traveller

N.B. : Diary entry from the following chapter is to be done in class and assessed in literature section as long answer (80-100 words)

How Far is the River

Heidi - Chapters 8 to 14

Note : There will be separate assessment of listening and speaking skills.

Listening Activities to be taken up in the term –

MCB-

1. Bob Dylan: The Voice of a Generation (pg.37)
2. Back from the Brink (pg. 70)
3. Fourteen-I (pg.92)
4. The Diary of a Space Traveller (pg.160)

Creative Writing (Expressions)

1. Read the chapter, 'Frankenstein's Creation' (LR) which is about the irreversible outcomes of a well- intentioned experiment. You have a brilliant idea for an invention that will be of great use to the mankind, but you need help and support. Write a letter to the Department of Science and Technology convincing them to help you with funds and resources.
2. Read the poem, 'The Spider and the Fly' (LR) which is a parable of the cunning spider and the foolish fly. Write an interesting conversation between a Venus flytrap and a butterfly similar to the one in the poem.
3. The chapter, 'Bob Dylan: The Voice of a Generation' is about a famous singer Bob Dylan's life and his Banquet speech that was given on his behalf when he won the Nobel Prize for Literature. Imagine you have recently won a prestigious award at school. Write a thank-you note expressing your gratitude towards the people who helped you achieve your goal. (MCB)

हिन्दी

हिन्दी शिक्षण के उद्देश्य:

1. भाषा की बारीकी को समझना और सौन्दर्यबोध की क्षमता का विकास करना।
2. दृश्य या श्रव्य माध्यमों की सामग्री को पढ़कर, देखकर और सुनकर समझने तथा उस पर स्वतंत्र व स्वाभाविक मौखिक एवं लिखित प्रतिक्रिया व्यक्त करने की क्षमता का विकास करना।

3. विभिन्न साहित्यिक विधाओं का आनंद उठाने की क्षमता का विकास करना।
4. पठित, लिखित और सुने हुए भाषिक ज्ञान से संबंधित सामग्री का तार्किक दृष्टि से अध्ययन करने की प्रवृत्ति का विकास करना।
5. अपने भावों व विचारों को सहज, स्वाभाविक और शुद्ध अभिव्यक्त करने की क्षमता का विकास करना।
6. शब्दों, मुहावरों, लोकोक्तियों का सुचिंतित प्रयोग करने की क्षमता का विकास करना।
7. मौखिक एवं लिखित अभिव्यक्ति के संदर्भ और आवश्यकता के अनुसार समुचित भाषा शैली व प्रयोग को चुनने की समझ का विकास करना।
8. भाषा की नियमबद्ध प्रकृति को पहचानना और उसका विश्लेषण करना।

नोट:- 1. प्रत्येक पाठ से शब्दार्थ, वाक्य-प्रयोग, प्रश्नोत्तर, निबंधात्मक प्रश्न करवाए जाएँगे।

2. परीक्षा में पाठ के मध्य से प्रश्न पूछे जाएँगे, अतः पाठ को ध्यानपूर्वक पढ़ना आवश्यक है।

- पाठ्य पुस्तकें** : 1. वसंत- भाग- 2 (एन.सी.ई.आर.टी.)
 2. बाल महाभारत कथा (एन.सी.ई.आर.टी.)
 3. हिंदी व्याकरण सुधा भाग-7 (गोयल ब्रदर्स प्रकाशन)

प्रथम सत्र

वसंत भाग - 2

- गद्य पाठ** - 1. मिठाईवाला (कहानी)
 2. रक्त और हमारा शरीर (निबंध)
 3. खानपान की बदलती तस्वीर (निबंध)

- पद्य पाठ** - 1. हम पंछी उन्मुक्त गगन के
 2. कठपुतली
 3. रहीम के दोहे

पूरक पुस्तक

बाल महाभारत कथा – ' महाभारत कथा ' से लेकर ' यक्ष-प्रश्न ' तक (पृष्ठ 1 से 49)

व्याकरण –

1. वर्ण विचार
2. संज्ञा
3. लिंग, वचन, कारक
4. सर्वनाम
5. विशेषण
6. पर्यायवाची शब्द (1-20)
7. विलोम शब्द (1-20)
8. अनेकार्थक शब्द (1-15)
9. वाक्यांशों के स्थान पर एक शब्द (1-20)
10. मुहावरे (1-10)

11. समश्रुत-भिन्नार्थक शब्द (1-20)

रचना कौशल -

1. अपठित-गद्यांश - वीर कुँवर सिंह (वसंत)
2. अपठित-काव्यांश - एक तिनका (वसंत)
3. चित्र-वर्णन - 2
4. संवाद-लेखन - 2
5. विज्ञापन-लेखन - 2
6. पत्र-लेखन-2 (औपचारिक एवं अनौपचारिक)
7. निबंध-लेखन - 2

ग्रीष्मावकाश (प्रयोज्य कार्य हेतु) -

1. पापा खो गए (वसंत)
2. अपूर्व अनुभव (वसंत)

द्वितीय-सत्र

वसंत भाग -2

गद्य पाठ -

1. हिमालय की बेटियाँ (निबंध)
2. चिड़िया की बच्ची (कहानी)
3. नीलकंठ (रेखाचित्र)

पद्य पाठ -

1. भोर और बरखा
2. विप्लव-गायन
3. शाम - एक किसान

पूरक पुस्तक

बाल महाभारत कथा - 'अज्ञातवास' से लेकर 'श्रीकृष्ण और युधिष्ठिर' तक (पृष्ठ 52 से 96)

व्याकरण -

1. क्रिया (कर्म के आधार पर)
2. काल
3. क्रिया-विशेषण
4. संबंधबोधक
5. पर्यायवाची शब्द (21-40)
6. विलोम शब्द (21-40)
7. अनेकार्थक शब्द (16-30)
8. वाक्यांशों के स्थान पर एक शब्द (21-40)
9. मुहावरे (11-20)
10. समश्रुत-भिन्नार्थक शब्द (21-40)

रचना कौशल -

1. अपठित-गद्यांश - कंचा (वसंत)
2. अपठित-काव्यांश - 2
3. चित्र-वर्णन - 2

4. संवाद-लेखन - 2
5. विज्ञापन-लेखन 2
6. पत्र-लेखन- 2 (औपचारिक एवं अनौपचारिक)
7. निबंध-लेखन – 2

शीतावकाश (प्रयोज्य कार्य हेतु) -

1. दादी माँ (वसंत)
2. आश्रम का अनुमानित व्यय (वसंत)

FRENCH

Learning Objectives:

1. To enhance the level of the students both in written and spoken French.
2. To enable the students to express themselves more effectively, naturally and correctly in the productive skill of writing.
3. To enhance the level of vocabulary and strengthen their concepts of grammar.
4. To enable the students to write in an appropriate style for communication purposes.
5. To develop basic understanding, conjugation of verbs in present, articles, prepositions, conjunctions, adjectives and different expressions.
6. To implement different strategies to make learning French an enjoyable and interesting experience.
7. To acquaint them with French culture and civilization.

Textbook : Apprenons le Français-2

Workbook: Cahier d'exercices-2

Dictionary: Collins Gem

General Note:

Question from within the lessons and related to Culture and Civilisation of France will be asked in the exams/tests, so the students must ensure a thorough reading of the text.

FIRST TERM

Detailed Study

Textbook : Leçon 0 : Un coup d'œil sur la France

Leçon 1 : Voilà le frère et la sœur de Manuel

Leçon 2 : À la cafétéria

Leçon 3 : Mon pays- La France

Leçon 4 : Les parents de Manuel

Workbook: Leçons- 0, 1, 2, 3, 4

Grammar:

1. Les articles définis (le, la, les, l')
2. Les articles indéfinis (un, une, des)
3. Les verbes en (-ER)
4. Les pronoms sujets
5. Le pluriel des noms
6. Les verbes en (-IR)
7. Féminin et Pluriel des adjectifs

8. Les couleurs
9. Les nationalités
10. Le contraire (des adjectifs)
11. Les professions
12. La négation
13. Les verbes en (-GER)
14. Qui est-ce ?/Qu'est-ce que c'est?
15. Chassez l'intrus
16. Corrigez la faute
17. Mettez les phrases en ordre

SECOND TERM

Detailed Study

Textbook: Leçon 6 : Allons à l'école
Leçon 7 : Dans un grand magasin
Leçon 8 : Les repas
Leçon 9 : Ma maison

Workbook: Leçons-6, 7, 8, 9

Grammar:

1. Les prépositions
2. Les verbes en (-RE) et les verbes irréguliers.
3. Les nombres ordinaux
4. Les articles contractés
5. L'interrogation
6. Les articles partitifs
7. Les verbes (-TIR) et les verbes irréguliers.
8. Les adjectifs possessifs
9. La négation avec l'article partitif et avec l'article défini
10. Trouvez la question
11. Les verbes en -eter, -eler, -cer (Pg. 59)
12. La négation (suite) (Pg 61)
13. Chassez l'intrus
14. Corrigez la faute
15. Mettez les phrases en ordre

संस्कृत

संस्कृत शिक्षण के उद्देश्य :-

1. संस्कृतभाषा एवं साहित्य के प्रति जिज्ञासा उत्पन्न करना।
2. अर्थबोध के साथ संस्कृत गद्यांश को पढ़ने की क्षमता विकसित करना तथा संस्कृत श्लोकों को स्मरण कर सस्वर वाचन करने की योग्यता उत्पन्न करना।
3. संस्कृतभाषा का सामान्यज्ञान कराना जिससे संस्कृत के सरलांशों को सुनकर या पढ़कर विद्यार्थी समझ सकें एवं मौखिक तथा लिखित अभिव्यक्ति कर सकें।
4. संस्कृत में श्रवण-भाषण-वाचन से लेखन-कौशल तथा भाषागत कौशल का विकास करना।
5. दृश्य-श्रव्य साधनों को ध्यानपूर्वक देखकर, पढ़कर तथा सुनकर उन पर अपेक्षित क्रियाएँ करने में समर्थ होना।

6. विद्यार्थियों में सौन्दर्यबोध, कल्पनाशीलता तथा चिन्तन की क्षमता का विकास करना।

सामान्य निर्देश :

1. रुचिरा में से परीक्षा हेतु पठित गद्यांशों, श्लोकों, संवादों पर आधारित प्रश्नोत्तर का अभ्यास करवाया जाएगा। भाषिक कार्य में जैसे – प्रश्न-निर्माण, पर्यायवाची, विलोम शब्द, संस्कृत में शब्दों के अर्थ, कर्तृ-क्रिया-पदचयन, विशेषण-विशेष्य, संज्ञा, सर्वनाम-प्रयोग आदि करवाये जाएंगे।
2. रुचिरा के पाठ्यक्रमानुसार पाठों का सम्पूर्ण अभ्यास तथा समस्त शब्दार्थ करवाये जाएंगे।
3. श्लोकों का अन्वय रिक्तस्थान के रूप में आएगा।
4. अव्यय, सन्धि, प्रत्यय, संख्या, शब्दरूप और धातुरूप वाक्यों में आएंगे।
5. प्रश्नपत्र संस्कृतभाषा में आएगा।

पाठ्य -पुस्तकें - 1. रुचिरा (द्वितीयो भागः)
2. संस्कृत व्याकरण मणिका (7)

प्रथम सत्र

1.रुचिरा-

1. प्रथमः पाठः – सुभाषितानि
2. द्वितीयः पाठः – दुर्बुद्धिः विनश्यति
3. तृतीयः पाठ – स्वावलम्बनम्
4. चतुर्थः पाठः – हास्यबालकविसम्मेलनम्
5. पञ्चमः पाठः – पण्डिता रमाबाई
6. सप्तमः पाठः – सङ्कल्पः सिद्धिदायकः
7. दशमः पाठः – विश्वबन्धुत्वम्

2. व्याकरण-

1. अव्यय (रिक्तस्थान के रूप में) – समस्त अव्यय शब्द
2. सन्धि (वाक्यों में) - दीर्घ सन्धि, गुण सन्धि
3. प्रत्यय (वाक्यों में) - क्त्वा प्रत्यय
4. शब्दरूप (वाक्यों में) – कवि, मधु, नदी, तद् (तीनों लिंगों में)
5. धातुरूप (वाक्यों में) – (लट्, लृट्, लङ् लकारों में) धातुएँ – पा, चूर्, स्था, दृश्
6. वाक्यसंशोधनम् – वचन, लिंग, लकार, पुरुष तथा विशेषण-विशेष्य पर आधारित

3 . 1 अपठित गद्यांश

2. पत्रलेखनम् – संकेताधारितं पत्रम्
3. चित्रवर्णनम् – प्रदत्त चित्र के आधार पर संस्कृत में वाक्य
4. हिन्दी से संस्कृत में अनुवाद (पाँच वाक्यों का)

द्वितीय सत्र

1. रुचिरा-

1. षष्ठः पाठः – सदाचारः
2. अष्टमः पाठः – त्रिवर्णः ध्वजः
3. नवमः पाठः – अहमपि विद्यालयं गमिष्यामि
4. एकादशः पाठः – समवायो हि दुर्जयः
5. द्वादशः पाठः – विद्याधनम्
6. त्रयोदशः पाठः – अमृतं संस्कृतम्
7. चतुर्दशः पाठः – अनारिकायाः जिज्ञासा
8. पञ्चदशः पाठः – लालनगीतम्

2. व्याकरण-

1. उपपद विभक्तियां - उभयतः, परितः, प्रति, सह, विना, नमः, दा, बहिः, अधः, उपरि, निपुणः इन पदों के साथ उपयुक्त विभक्तियों का प्रयोग। (उपपद विभक्तियों पर आधारित अशुद्धि-संशोधन, रिक्तस्थानादि)
2. संख्या (वाक्यों में) 1 से 50 तक
क्रमवाचक (पूरणार्थक) संख्या - प्रथम से दशम तक तीनों लिंगों में सभी विभक्तियों में प्रायोगिक ज्ञान
3. प्रत्ययः (वाक्यों में) – ल्यप् प्रत्यय
4. शब्दरूप (वाक्यों में) – मति, वारि, पितृ, एतद् (तीनों लिंगों में)
5. धातुरूप (वाक्यों में) - (लट्, लृट्, लङ् लकारों में) धातुएँ - पच्, लिख्, वस्, कृ

3. 1. अपठित गद्यांश

2. पत्रलेखनम् - संकेताधारित पत्रलेखनम्
3. चित्रवर्णनम् – प्रदत्त चित्र के आधार पर संस्कृत में वाक्य
4. हिन्दी से संस्कृत में अनुवाद (पाँच वाक्यों का)

MATHEMATICS

Learning Objectives

Teaching of Mathematics helps the learners to

- acquire knowledge and understand terms, symbols, concepts, principles, processes, proofs etc.
- consolidate the Mathematical knowledge and skills acquired at the primary level.
- develop mastery of basic algebraic skills.
- develop drawing skills.
- apply Mathematical knowledge and skills to solve real life problems by developing abilities to analyse, to see interrelationship involved, to think and reason.

- develop interest in Mathematics as a problem solving tool in various fields.
- develop reverence and respect towards great Mathematicians, particularly towards the Indian Mathematicians for their contributions to the field of Mathematics.

Textbook : Mathematics - Textbook for Class VII (NCERT)

Practice Book : Maths Ladder - Practice book for Mental Maths (Impression) - CLASS 7

FIRST TERM

Chapter-1 : Integers

- Introduction
 - Recall
 - Properties of Addition and Subtraction of Integers
 - Multiplication of Integers
 - Properties of Multiplication of Integers
 - Division of Integers
 - Properties of Division of Integers
- Ex. 1.1 to Ex. 1.4 with examples

Practice Book : Page No. 5 to 10

Chapter-2 : Fractions and Decimals

- Introduction
 - How Well have You Learnt about Fractions?
 - Multiplication of Fractions
 - Division of Fractions
 - How Well have you Learnt about Decimal Numbers?
 - Multiplication of Decimal Numbers
 - Division of Decimal Numbers
- Ex. 2.1 to Ex. 2.7 with examples

Practice Book : Page No. 11 to 18

Chapter-5 : Lines and Angles

- Introduction
 - Related Angles
 - Pairs of Lines
 - Checking for Parallel Lines
- Ex. 5.1 and Ex. 5.2 with examples

Practice Book : Page No. 33 to 37

Chapter-6 : The Triangle and its Properties

- Introduction
 - Medians of a Triangle
 - Altitudes of a Triangle
 - Exterior Angle of a Triangle and Its Property
 - Angle Sum Property of a Triangle
 - Two Special Triangles : Equilateral and Isosceles
 - Sum of the Lengths of Two Sides of a Triangle
 - Right-Angled Triangles and Pythagoras Property
- Ex. 6.1 to Ex. 6.5 with examples

Practice Book : Page No. 38 to 43

Chapter-9 : Rational Numbers

- Introduction
- Need for Rational Numbers
- What are Rational Numbers?
- Positive and Negative Rational Numbers
- Rational Numbers on a Number Line
- Rational Numbers in Standard Form
- Comparison of Rational Numbers
- Rational Numbers Between Two Rational Numbers
- Operations on Rational Numbers
- Ex. 9.1 and Ex. 9.2 with examples

Practice Book : Page No. 58 to 66

Chapter-13 : Exponents and Powers

- Introduction
- Exponents
- Laws of Exponents
- Miscellaneous Examples using the Laws of Exponents
- Decimal Number System
- Expressing Large Numbers in the Standard Form
- Ex. 13.1 to Ex. 13.3 with examples

Practice Book : Page No. 87 to 91

Chapter-14 : Symmetry

- Introduction
- Lines of Symmetry for Regular Polygons
- Rotational Symmetry
- Line Symmetry and Rotational Symmetry
- Ex. 14.1 to Ex. 14.3 with examples

Practice Book : Page No. 92 to 95

Vedic Mathematics

1. Multiplication of numbers by “Nikhilam Sutra”
2. Multiplication of numbers by “Urdhava Triyagbhayam” method
3. Squaring of numbers by “Yavadunam” method
4. Division of numbers by 9 using “Nikhilam” method

SECOND TERM

Chapter-3 : Data Handling

- Introduction
- Collecting Data
- Organisation of Data
- Representative Values
- Arithmetic Mean
- Mode
- Median
- Use of Bar Graphs with a Different Purpose
- Chance and Probability

Ex. 3.1 to Ex. 3.4 with examples

Practice Book : Page No. 19 to 26

Chapter-4 : Simple Equations

- A Mind-reading Game
- Setting up of an Equation
- Review of what We Know
- What Equation is?
- More Equations
- From Solution to Equation
- Applications of Simple Equations to Practical Situations

Ex. 4.1 to Ex. 4.4 with examples

Practice Book : Page No. 27 to 32

Chapter-7 : Congruence of Triangles

- Introduction
- Congruence of Plane Figures
- Congruence Among Line Segments
- Congruence of Angles
- Congruence of Triangles
- Criteria for Congruence of Triangles
- Congruence Among Right-Angled Triangles

Ex. 7.1 and Ex. 7.2 with examples

Practice Book : Page No. 44 to 49

Chapter-8 : Comparing Quantities

- Introduction
- Equivalent Ratios
- Percentage - Another Way of Comparing Quantities
- Use of Percentages
- Prices Related to an Item or Buying and Selling
- Charge Given on Borrowed Money or Simple Interest

Ex. 8.1 to Ex. 8.3 with examples

Practice Book : Page No. 50 to 57

Chapter-10 : Practical Geometry

- Introduction
- Construction of a Line Parallel to a Given Line, Through a Point not on the Line
- Construction of Triangles
- Constructing a Triangle when the Lengths of its Three Sides are Known (SSS Criterion)
- Constructing a Triangle when the Lengths of Two Sides and the Measure of the Angle Between them are Known (SAS Criterion)
- Constructing a Triangle when the Measures of two of its Angles and the Length of the side included between Them is given (ASA Criterion)
- Constructing a Right-Angled Triangle when the Length of One Leg and its Hypotenuse are Given (RHS Criterion)

Ex. 10.1 to Ex. 10.5 with examples

Practice Book : Page No. 67 to 72

Chapter-11 : Perimeter and Area

- Introduction
 - Squares and Rectangles
 - Area of a Parallelogram
 - Area of a Triangle
 - Circles
 - Conversion of Units
 - Applications
- Ex. 11.1 to Ex. 11.4 with examples

Practice Book : Page No. 73 to 80

Chapter-12 : Algebraic Expressions

- Introduction
 - How are Expressions Formed?
 - Terms of an Expression
 - Like and Unlike Terms
 - Monomials, Binomials, Trinomials and Polynomials
 - Addition and Subtraction of Algebraic Expressions
 - Finding the Value of an Expression
 - Using Algebraic Expressions – Formulas and Rules
- Ex. 12.1 to Ex. 12.4 with examples

Practice Book : Page No. 81 to 86

Chapter-15 : Visualising Solid Shapes

- Introduction : Plane Figures and Solid Shapes
 - Faces, Edges and Vertices
 - Nets for Building 3-D Shapes
 - Drawing Solids on a Flat Surface
 - Viewing Different Sections of a Solid
- Ex. 15.1 to Ex. 15.4 with examples

Practice Book : Page No. 96 to 98

Vedic Mathematics

1. Division by Paravartya - Yojayet Sutra
 - (a) Four digit numbers by two digit numbers
 - (b) Four digit numbers by three digit numbers
2. Multiplication of three numbers by “Nikhilam Navatascaramam Dasatah” Sutra.
3. Multiplication of numbers by “Urdhava Tirayak Sutra”.

SCIENCE

Learning Objectives

The objectives of teaching Science are:

- to strengthen the knowledge acquired at primary level.
- to emphasize the acquisition of scientific knowledge.
- to appreciate nature and sensitise the students about the environment.
- to understand scientific language i.e. symbols, formulae etc.
- to develop scientific attitude/temper.

- to apply the theoretical knowledge of Science to daily life.
- to make the students abreast with the latest technological developments that have taken place and their impact on the society.
- to enable the students to develop the process of problem solving and decision making.

Textbook: Science Textbook for Class VII (NCERT)

Assignment Book: Science Exemplar Problems for Class VII (NCERT)

PHYSICS

FIRST TERM

Chapter-13: Motion and Time

Slow or fast, speed, measurement of time, measuring speed, distance - time graph.

Chapter-15: Light

Light travels along a straight line, reflection of light, right or left, playing with spherical mirrors, images formed by lenses, sunlight- white or coloured.

SECOND TERM

Chapter-4: Heat

Hot and cold, measuring temperature, laboratory thermometer, transfer of heat, kinds of clothes we wear in summer and winter.

Chapter-8: Winds, Storms and Cyclones

Air exerts pressure, high speed winds are accompanied by reduced air pressure, air expands on heating, wind currents are generated due to uneven heating on the earth, thunderstorms and cyclones, destruction caused by cyclones, effective safety measures, advanced technology has helped.

Chapter-14: Electric Current and Its Effects

Symbols of electric components, heating effect of electric current, magnetic effect of electric current, electromagnet, electric bell.

CHEMISTRY

FIRST TERM

Chapter-3: Fibre to Fabric

Wool, silk

Chapter-5: Acids, Bases and Salts

Acids and bases, natural indicators around us, neutralisation, neutralisation in everyday life. Note: Introduction of symbols of some common elements and formulae of some common compounds.

Chapter-16: Water- A Precious Resource

How much water is available, forms of water, ground water as an important source of water, depletion of water table, distribution of water, water management, what role you can play? Effect of water scarcity on plants.

SECOND TERM

Chapter-6: Physical and Chemical Changes

Physical changes, chemical changes, rusting of iron, crystallisation.

Chapter-18: Wastewater Story

Water - our lifeline, what is sewage? Water freshens up - an eventful journey, wastewater

treatment plant, better housekeeping practices, sanitation and disease, alternative arrangement for sewage disposal, sanitation at public places.

BIOLOGY FIRST TERM

Chapter-1: Nutrition in Plants

Mode of nutrition in plants, photosynthesis - food making process in plants, other modes of nutrition in plants, saprotrophs, how nutrients are replenished?

Chapter-2: Nutrition in Animals

Different ways of taking food, digestion in humans, digestion in grass eating animals, feeding and digestion in amoeba.

Chapter-7: Weather, Climate and Adaptations of Animals to Climate

Weather, climate, climate and adaptation.

Chapter-10: Respiration in Organisms

Why do we respire? Breathing, how do we breathe? What do we breathe out? Breathing in other animals, breathing under water, do plants also respire?

SECOND TERM

Chapter-9: Soil

Soil teeming with life, soil profile, soil types, properties of soil, moisture in soil, absorption of water by soil, soil and crops.

Chapter-11: Transportation in Animals and Plants

Circulatory system, excretion in animals, transport of substances in plants.

Chapter-12: Reproduction in Plants

Modes of reproduction, sexual reproduction, fruits and seed formation, seed dispersal.

Chapter-17: Forests: Our Lifeline

Visit to a Forest.

SOCIAL SCIENCE

Learning Objectives

The course in Social Science will help learners :

- develop an understanding of the processes of change and development - both in terms of time and space, through which human societies have evolved.
- deepen the knowledge and understanding of environment in its totality, their interactive processes and effects on the future life of people.
- develop scientific temper by promoting the spirit of enquiry and following rational and objective approach in analysing and evaluating data and information as well as views and interpretations.

Textbooks :

1. Our Past-II : Textbook in History for Class VII (NCERT)
2. Social and Political Life-II : Textbook for Class VII (NCERT)
3. Our Environment : Textbook in Geography for Class VII (NCERT)

FIRST TERM

Our Pasts-II

Chapter 1 : Tracing Changes Through A Thousand Years

Chapter 2 : New Kings and Kingdoms

Map Work : Kanauj and important temple towns

Chapter 3 : The Delhi Sultans

Map Work : Delhi, Devagiri

Chapter 5 : Rulers and Buildings (Project)

Chapter 9 : The Making of Regional Cultures

Map Work : Bengal, Orissa (Puri), Rajasthan, Uttar Pradesh, Kerala, Himachal Pradesh

Social and Political Life-II

Chapter 1 : On Equality

Chapter 2 : Role of the Government in Health

Chapter 3 : How the State Government Works

Chapter 4 : Growing up as Boys and Girls

Our Environment

Chapter 1 : Environment

Diagram : Domains of the Environment

Chapter 2 : Inside Our Earth

Diagram : Interior of the Earth

Chapter 3 : Our Changing Earth

Diagram : A Volcano; Features made by a river

Chapter 4 : Air

Diagram : Layers of the Atmosphere

Chapter 5 : Water

Diagram : Water Cycle

Map Work : World Political Map : Ocean currents - Labrador, Gulf stream, California, Brazilian, Kuroshio, West Australian, Oyashio.

World Political Map : Largest Great Lake of North America,

longest river, largest river, water body that separates Europe and

Africa, largest inland body of water- Caspian Sea, An inlet of the Indian Ocean- Red Sea

SECOND TERM

Our Pasts-II

Chapter 4 : The Mughal Empire

Map Work : Panipat, Areas under control of Babur- Delhi and Agra

Chapter 6 : Towns, Traders and Craftspersons

Map Work : Surat, Hampi, Masulipatnam, New trading centres of the 18th century,

Chapter 7 : Tribes, Nomads and Settled Communities (Project)

Chapter 8 : Devotional Paths To The Divine

Map Work : Regions associated with major Bhakti saints

Chapter 10 : Eighteenth-Century Political Formations

Map Work : Old Mughal provinces in the 18th century (Awadh,

Bengal and Hyderabad), City plundered by Nadir Shah in 1739- Delhi,

Capital of Marathas in the 18th century- Poona, Capital of Ranjit Singh -

Lahore, Region under the control of Jats - Delhi and Agra, New capital of
Sawai Raja Jai Singh- Jaipur

Social and Political Life-II

Chapter 5 : Women Change the World

Chapter 6 : Understanding Media

Chapter 7 : Markets Around Us

Chapter 8 : A Shirt in the Market

Chapter 9 : Struggles for Equality

Our Environment

Chapter 6 : Natural Vegetation and Wildlife

Map Work: World Political Map: Major Grasslands of the World-
Savannas, Steppes, Downs, Velds, Campos, Prairies, Pampas, Llanos

Chapter 7 : Human Environment - Settlement, Transport and Communication

Map Work : World Political Map : Some important sea ports and
airports of the world

India Political Map : Cities connected in Golden Quadrilateral.

Chapter 8 : Human Environment Interactions - The Tropical and the Subtropical
Region

Map Work : World Political Map : River Amazon, areas drained by
Amazon River; the equator and the countries passing through the equator,

Continent in which the Amazon Basin is located- South America

India Political Map : River Ganga, River Brahmaputra, Tributaries
of river Ganga

Chapter 9 : Life in the Deserts

Map Work : World Political Map : Continent where Sahara desert lies,
countries situated on the boundaries of Sahara desert

India Political Map : Ladakh, Zojila Pass, Zaskar Range, Karakoram
Range, Srinagar, Kargil and Leh

COMPUTER SCIENCE

Learning Objectives

- to enhance the knowledge of website designing using HTML
- to familiarize the students with the concepts of APP Development, Artificial Intelligence and Internet of Things (IoT)
- to develop basic skills of programming using Python Turtle

Textbook- Coding With Computer (Class 7)

FIRST TERM

Lesson 1: Computer Virus

- What is a Virus?
- Types of Viruses-Trojan Horse, Worm
- What is Malicious Software?
- Protect Computer from a Virus

Lesson 3: Introduction to HTML

- Introduction to HTML
- Structure of HTML document
- HTML Tags, Elements and Attributes
- Heading, Paragraph and Line Break Tags

- HTML Formatting Tags
- HTML Backgrounds

Lesson 6: Become A Coder with Python Turtle

- Starting Python
- Create a New File in Python
- Programming with Turtle
- Cloning of Turtle

SECOND TERM

Lesson 2: Binary Number- The Computer Number System

- What are Decimal Numbers?
- What is Binary Number?
- Integer Conversion between Binary and Decimal Number Systems

Lesson 7: Python Turtle Programming

- Conditional Statements in Python
- Loops in Python
- What are Variables?

Lesson 8: Artificial Intelligence and Internet of Things

- What is Artificial Intelligence?
- Machine Learning
- Applications of Machine Learning
- What is Internet of Things
- IoT Devices and Examples

Lesson 9: Cyber Security and Cyber Crime

- Cyber Crime
- Types of Cyber Crime
- Social Media and its misuse
- Phishing, Hackers, Virus, Cyber Bullying and Cyber Security
- Safe Use of Internet

For Practical Sessions Only

- Lesson 4: Getting Started with APP Development
- Lesson 5: The Design Process of APP Development

GENERAL KNOWLEDGE

Learning Objectives

The course in General Knowledge will help learners :

- grow both on personal as well as academic level.
- improve their reasoning and thinking skills.
- prepare for competitive exams.
- understand and analyse the situations.

Textbook: G.K. WHIZ -7 (FRANK EMU BOOKS)

FIRST TERM

1. NATURE

- Animals in Cold Regions
- Desert Animals

- A Little World
- Few Forests
- Here are Herbs

2. INDIA

- Bharat Ratna Awardees
- Kings and Emperors
- Yesterday and Today
- High Hills
- Places of Worship
- Count on Courage

3. WORLD

- The Freezing Cold
- The United Nations
- Leaders' Homes
- Parliaments
- Women and the Nobel

4. LANGUAGE

- Legendary Writers
- Name Game
- Books by Women
- Platform for Playwrights
- One Liners

5. SCIENCE

- Human Body
- Glands
- Social Networking Services

6. SPORTS

- Olympic Greats
- The Grand Slam Winners

7. ENTERTAINMENT

- Latino Dance and Music
- Puppetry

Test Paper 1

Test Paper 2

SECOND TERM

1. NATURE

- Hello Health Life Skills
- Animals that Adapt
- One of a kind
- The One-horned Rhino
- Gone from the Earth

2. INDIA

- Heritage Sites
- Offbeat Places

- Make in India
- Northeast Miscellany
- Words of Wisdom

3. WORLD

- Lesser known Places
- Train Travel
- Travel Tips Life Skills
- Natural Wonders
- Years Gone by

4. LANGUAGE

- Contrary Proverbs
- Newspapers
- Phobias
- Languages

5. SCIENCE

- Robotics in India
- Sports Injuries
- What is the Disease?

6. SPORTS

- Sports Legends
- Famous for Sports
- Playing Sports

7. ENTERTAINMENT

- Radio Jockey

Test Paper 1

Test Paper 2

ART EDUCATION

Learning Objectives -

-Introduce the students to new media and technique and their use for creative expression and making objects of common use.

-Refine the sense of appreciation of the beauty of nature and the basic elements of art forms.

Textbook - Art Redefined Book 5

FIRST TERM

1. Know about colours (Primary. Secondary and Neutral)

2. Basic colouring strokes and techniques.

Art Redefined Book - 5

Pages 3 to 34

SECOND TERM

Art Redefined Book – 5

Pages 35 to 70

ART EDUCATION

MUSIC, DANCE AND DRAMA

Learning Objectives

- To identify what makes a performance effective.

- To demonstrate an understanding of the relationship between artists and artworks.
- To explore and learn about the ways in which dance, music and drama communicate the feelings and help us express them.

Theory

1. Concept of Art Education
2. Basic Knowledge of Performing Art
3. 10 Alankaars
4. Sargam Geet
5. Written work of Teen Taal, Dadra and Khemta
6. Knowledge of Classical Dance and Folk Dance
7. Knowledge of Western Dance Forms
8. Basic knowledge of Theatre and Drama

Practical

1. Practice of Alankaars
2. Practice of Sargam Geet
3. Practice of Taal
4. Practice of Prayers and Songs from School diary
5. Folk Song (Sikkim and Gujarat)
6. Sufi Bhajan (Chaap Tilak)
7. Exercises of Classical Dance and Western Dance
8. Practice of Voice Modulation and Anchoring

PHYSICAL EDUCATION AND HEALTH EDUCATION

Learning Objectives

- To develop a scientific point of view regarding Health and Physical Education.
- To give knowledge about Balanced Diet and Nutrition.
- To be familiar with the effects of Exercises on Cardiovascular System.
- To make students aware about the need of Sports Environment.

Theory

- Effects of Exercise on Respiratory system.
- Knowledge about communicable diseases and their effects on our health.
- Knowledge of sports injuries, first-aid and treatment.
- Knowledge of all physical exercises related with major games and their benefits.

Practical: (Games and Sports)

1. Basketball
2. Volleyball
3. Cricket
4. Badminton
5. Table Tennis
6. Throwball