

# **SYLLABI FOR STANDARDS IX AND X**

(As sanctioned under Government of Maharashtra  
Letter No. SSC-210/(195/10)/ उ.मा.शि.२ दि.१२/०३/२०१२



**Maharashtra State Board of Secondary  
And Higher Secondary Education,  
Pune – 411 004.**



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# भारताचे संविधान

## प्रस्ताविका

आम्ही, भारताचे लोक, भारताचे एक सार्वभौम  
समाजवादी धर्मनिरपेक्ष लोकशाही गणराज्य घडवण्याचा  
व त्याच्या सर्व नागरिकांस :

सामाजिक, आर्थिक व राजनैतिक न्याय ;  
विचार, अभिव्यक्ती, विश्वास, श्रद्धा  
व उपासना यांचे स्वातंत्र्य ;  
दर्जाची व संधीची समानता ;

निश्चितपणे प्राप्त करून देण्याचा  
आणि त्या सर्वांमध्ये व्यक्तीची प्रतिष्ठा  
व राष्ट्राची एकता आणि एकात्मता  
यांचे आश्वासन देणारी बंधुता  
प्रवर्धित करण्याचा संकल्पपूर्वक निर्धार करून ;

आमच्या संविधानसभेत

आज दिनांक सव्वीस नोव्हेंबर, १९४९ रोजी  
याद्वारे हे संविधान अंगीकृत आणि अधिनियमित  
करून स्वतःप्रत अर्पण करत आहोत.

## राष्ट्रगीत

जन गण मन अधिनायक जय हे  
भारत भाग्य विधाता ।  
पंजाब, सिंधु, गुजरात, मराठा,  
द्राविड, उत्कल, बंगा,  
विंध्य, हिमाचल, यमुना, गंगा,  
उच्छल जलधि तरंगा  
तव शुभ नामे जागे  
तव शुभ आशिष मागे,  
गाहे तव जय गाथा,  
जनगण मंगलदायक जय हे,  
भारत भाग्य विधाता ।  
जय हे । जय हे । जय हे ।  
जय जय जय जय हे ।

## प्रतिज्ञा

भारत माझा देश आहे. सारे भारतीय माझे बांधव आहेत.

माझ्या देशावर माझे प्रेम आहे. माझ्या देशातल्या समृद्ध आणि विविधतेने नटलेल्या परंपरांचा मला अभिमान आहे. त्या परंपरांचा पाईक होण्याची पात्रता माझ्या अंगी यावी म्हणून मी सदैव प्रयत्न करीन.

मी माझ्या पालकांचा, गुरुजनांचा आणि वडीलधाऱ्या माणसांचा मान ठेवीन आणि प्रत्येकाशी सौजन्याने वागेन.

माझा देश आणि माझे देशबांधव यांच्याशी निष्ठा राखण्याची मी प्रतिज्ञा करित आहे. त्यांचे कल्याण आणि त्यांची समृद्धी ह्यांतच माझे सौख्य सामावले आहे.



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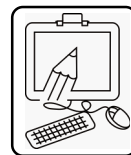
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# Analytical Perspective on Curriculum Development

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## Background

Taking into consideration the recommendations of the Kothari Commission (1964-66) and National Education Policy (1968), the State of Maharashtra adopted the 10 + 2 + 3 educational pattern and implemented uniformly throughout the state. Accordingly the first Secondary School Certificate Examination on the new syllabi was held in April 1975. The implementation at the + 2 stage for Std. XI and Std. XII was done from the academic year. 1975-76 and 1976-77 respectively. The first Higher Secondary Certificate Examination was held in April 1977.

Subsequently the syllabi were revised based on the recommendations of Dr. Ishwarbhai Patel National Review Committee. This was implemented for Std. VII from the academic year 1982-83 and the first S.S.C Examination was conducted in March 1985. It was implemented at the + 2 stage from the year 1986-87 respectively and the first Higher Secondary Certificate Examination was held in March 1987.

Based on the National policy of 1986

the syllabi were implemented for Std. IX and Std. X simultaneously in the academic year 2006-2007 and for Std. XI and Std. XII in the year 2007-2008. The first Secondary School Certificate and Higher Secondary Certificate Examination were held in March 2008 by the Board.

## Participate Restructuring of the Syllabi

While restructuring the syllabi after almost a decade, a variety of exercise were undertaken by the State Board to ensure a broad based participation of the stakeholders. Syllabi are often criticized as being framed by expert in ivory towers and stakeholders' views are ignored. The syllabi fail to reflect the needs and aspirations of the society. To pre-empt this, the State Board undertook various studies before forming its policy. This also ensured the adopting of the 'bottom up' policy i.e. taking into consideration the needs of the society before framing the syllabi.

## Maharashtra State Curriculum Framework (MSCF)

The state policy a education is clearly stated in this document. Realisation of the principles and approacher is as envisaged in NCF 2005 were brought into the context



of the state. While restructuring the Syllabi the recommendations in respect of policy, teaching and learning procedure, evaluation are considered. The major thrust is on constructivism.

### **Other Studies**

The State Board also undertook various studies to have the relevant database for revising the syllabi.

#### **1. Subject wise review of previous Syllabi.**

The study included a review of the old and existing syllabi implemented in the State from time to time. It is to be noted that in keeping with the changing needs of the times, the Board incorporated changes in the content, approach, methodology, etc. the syllabi at every stage. In framing the new syllabi, again, a conscious effort was made to include challenging areas to keep pace with the challenges of the changing world scenario.

#### **2. Study of the Syllabi of other states.**

Before framing its own policy an in-depth study of the syllabi of various subjects from different State Boards of Education in India was undertaken. The major objectives of the enterprise were –

1. To study difficulty levels of syllabi in Maharashtra with that of syllabi of other states.
2. To decide the importance to be accorded to particular subject in the

curriculum set up.

3. To analyse the structuring of the content of the syllabi.
4. To study the scope and limitation of different subject.
5. To study scope and limitation of the content.
6. To decide the best approach towards teaching and learning.
7. To study the syllabi through different perspectives.
8. To study the evaluation systems.
9. To find out which syllabus is closest to our needs.
10. To find out the extent to which the syllabi in Maharashtra is at par with the syllabi of other states.
11. To establish a foundation for restructuring the syllabi.
12. To undertake the necessary research and restructure the syllabi.

Different parameters of observation were decided upon the detailed reading of the syllabi was undertaken. The parameters included –

1. The place of the subject in the curriculum
2. Objectives of the syllabus
3. Presentation of the syllabus
4. Contents of the syllabus



5. Suitability of the textbooks with respect to the syllabus
6. Periods to be allotted
7. Evaluation pattern
8. Total marks to be allotted to the examination
9. Duration of the examination
10. Minimum marks of passing
11. Design of the question paper and test items

The syllabi of the different states like Tamil Nadu, Bihar, Madhya Pradesh, Karnataka, Andhra Pradesh, West Bengal were considered. The syllabi of NCERT, CBSE and ICSE were also studied and a comparative statement was evolved to note the status of the State's position. An attempt was made by the Board of Studies to incorporate the best in all these syllabi after considering the local needs and the backgrounds of our students. The exercise was an effort to keep the State syllabi at par with national standards.

### **3. Reactions of Expert Teachers**

To ascertain the valuable opinions of the experienced teachers in the field regarding the existing syllabi of different subjects, a questionnaire was sent to about hundred teachers of different subjects throughout the state. They were requested to send their responses. The questionnaire was framed to so as to elicit the reasons of these teachers regarding the objectives, content and presentation of the syllabi.

1. Under 'objectives' the study in each subject
  - 1.1 The suitability of the objectives in each subject
  - 1.2 Clarity of the objectives
  - 1.3 Scope and limitations of the objectives
  - 1.4 Drawbacks of the objectives
  - 1.5 Changes needed in the objectives to suit the changing times

### **4. Under 'presentation' of the syllabus,**

opinions on the following issues were studied

- 4.1 Objectives
- 4.2 Teaching – learning process
- 4.3 Textbooks and learning material
- 4.4 Evaluation process
- 4.5 Reference material

The views have immensely helped the State Board in framing restructured syllabi.

### **5. Study of the recommendations of NCERT Document**

N.C.E.R.T, New Delhi has made several valuable recommendations in its document viz. The National Curriculum Frame 2005 as well as MSCF 2010. Views pertaining to the organization of the curriculum at the elementary and secondary stages, goals and aims of education when seen in larger perspective, the scheme of studies at different levels, organization of the curriculum at the higher secondary stage, vocationalisation of education, adopting



more relevant modes of evaluation, learners' progress have been explicitly dealt within the document.

### **Features of the restructured Syllabi**

The periodic reframing of the syllabi of almost all the subjects ensures an adequate coverage of knowledge and information in accordance with the times and the age group of learners. It also ensures that a proper place is given to the culture, heritage, social reforms, life skills, student's interest and needs, and that cognizance is taken of the very different abilities of students from heterogeneous backgrounds.

An effort has been made to make the syllabi more futuristic and user friendly. Rapidly changing lifestyles and the explosion of knowledge and information have been taken into consideration. In order to make the citizen of tomorrow a more concerned and able individual the frontline issues have been given due to consideration in all the subjects. The following areas were focused upon –

1. Training in life skills.
2. Education to develop vocational skills.
3. Education in stress management.
4. Advance education.
5. Education in information technology
6. Teaching communication skills
7. Environment awareness and the need for ecological preservation.
8. Value education
9. Education enhancing general knowledge.
10. Education to enable to face the challenges of liberalization privatization and globalization.
11. Education for fighting terrorism and emergency management.
12. Education for improving emotional quotient.
13. Creating consumer awareness.
14. Safeguarding human rights.
15. Creating awareness regarding space technology
16. Genetic engineering.
17. Biotechnology.
18. New areas of health care.
19. Energy problems.
20. World geography.
21. World Trade Organizations.
22. Anthropological discoveries.
23. Entrepreneurship.
24. Water management.
25. Awareness regarding agriculture.
26. Awareness regarding child labour.
27. Eradication of superstition.
28. Travel and Tourism.
29. Awareness regarding removal corruption.
30. Constructive approach in education.
31. Use of Information communication technology in all subjects.



## परिशिष्ट 'अ'

माध्यमनिहाय भाषा विषय अभ्यास योजना  
(इयत्ता ९वी आणि १०वी)

### अंमलबजावणी

इ.९ वी : शैक्षणिक वर्ष २०१२-२०१३ पासून

इ.१०वी : शैक्षणिक वर्ष २०१३-२०१४ पासून

अ. क्र.	शाळेचे अध्यापन माध्यम	भाषा
१	मराठी	१. मराठी (प्रथम) १. हिंदी (पूर्ण) किंवा हिंदी (संयुक्त) + संस्कृत (संयुक्त)/पाली (संयुक्त)/अर्धमागधी (संयुक्त)/उर्दू (संयुक्त)/अरेबिक (संयुक्त)/पर्शियन (संयुक्त)/जर्मन (संयुक्त)/फ्रेंच (संयुक्त)/रशियन (संयुक्त)/संस्कृत/पाली/अर्धमागधी २. इंग्रजी (तृतीय)/इंग्रजी (प्रथम)
	उर्दू मातृभाषा असलेल्या विद्यार्थ्यांसाठी	१. मराठी (प्रथम) २. हिंदी (पूर्ण) किंवा हिंदी (संयुक्त) + उर्दू (संयुक्त)/उर्दू + अरेबिक (संयुक्त)/उर्दू + पर्शियन (संयुक्त)/हिंदी + अरेबिक (संयुक्त)/पर्शियन (संयुक्त)/जर्मन (संयुक्त)/फ्रेंच (संयुक्त)/रशियन (संयुक्त) ३. इंग्रजी (तृतीय)/इंग्रजी (प्रथम) अथवा १. उर्दू (प्रथम) २. मराठी (पूर्ण) किंवा मराठी(संयुक्त) + हिंदी (संयुक्त)/संस्कृत (संयुक्त)/पाली(संयुक्त) अर्धमागधी (संयुक्त)/पर्शियन (संयुक्त)/अरेबिक (संयुक्त)/जर्मन (संयुक्त)/फ्रेंच (संयुक्त)/रशियन (संयुक्त) इंग्रजी (तृतीय)/इंग्रजी (प्रथम)
२	हिंदी	१. हिंदी (प्रथम) २. मराठी (द्वितीय) (पूर्ण) किंवा मराठी (संयुक्त) + संस्कृत (संयुक्त)/पाली (संयुक्त)/अर्धमागधी (संयुक्त)/फ्रेंच (संयुक्त)/जर्मन (संयुक्त)/रशियन (संयुक्त)/उर्दू (संयुक्त)/अरेबिक (संयुक्त)/पर्शियन (संयुक्त) ३. इंग्रजी (तृतीय)
३.	उर्दू	१. उर्दू २. मराठी (पूर्ण) किंवा मराठी (संयुक्त) + हिंदी (संयुक्त)/संस्कृत (संयुक्त)/पाली (संयुक्त)/अर्धमागधी (संयुक्त)/अरेबिक (संयुक्त)/पर्शियन (संयुक्त) ३. इंग्रजी





४	इंग्रजी	१. इंग्रजी (प्रथम) २. मराठी (द्वितीय)/मराठी (प्रथम) ३. हिंदी (पूर्ण) किंवा हिंदी (संयुक्त) + संस्कृत (संयुक्त)/पाली (संयुक्त)/अर्धमागधी (संयुक्त)/उर्दू (संयुक्त)/गुजराती (संयुक्त)/कन्नड (संयुक्त)/तमीळ (संयुक्त)/तेलुगु (संयुक्त)/मल्याळम् (संयुक्त)/सिंधी (संयुक्त)/बंगाली (संयुक्त)/पंजाबी (संयुक्त)/जर्मन (संयुक्त)/फ्रेंच (संयुक्त)/रशियन (संयुक्त)/अरेबिक (संयुक्त) पर्शियन (संयुक्त)/संस्कृत/गुजराती
५	गुजराती, सिंधी, कन्नड इत्यादी	१. गुजराती, सिंधी, कन्नड इत्यादी २. मराठी (पूर्ण) किंवा मराठी (संयुक्त) + संस्कृत (संयुक्त)/पाली (संयुक्त)/अर्धमागधी (संयुक्त)/हिंदी (संयुक्त)/उर्दू (संयुक्त)/पर्शियन (संयुक्त)/ अरेबिक (संयुक्त) ३. इंग्रजी

## टीपा

१. इतर राज्यातील पालक महाराष्ट्रात बदलून आल्यास त्यांच्या पाल्यांनी किंवा इतर कारणांमुळे महाराष्ट्रात आलेल्या विद्यार्थ्यांनी इयत्ता ८ वी, इयत्ता ९ वी किंवा इयत्ता १० वीमध्ये प्रवेश घेतला असल्यास त्यांना मराठी विषय अनिवार्य राहणार नाही. अशा विद्यार्थ्यांनी महाराष्ट्राच्या अमराठी माध्यमाच्या शाळेत इयत्ता ८ वी व इयत्ता ९ वीमध्ये प्रवेश घेतल्यास त्यांना मराठी भाषेच्या अभ्यासातून सूट देण्याचे अधिकार संबंधित शिक्षण उपसंचालकांचे राहतील. मात्र, अशी सूट दिल्यानंतर त्या आदेशाची प्रत संबंधित विभागीय माध्यमिक व उच्च माध्यमिक शिक्षण मंडळास द्यावी. इयत्ता १० वी मध्ये प्रवेश घेतलेल्या विद्यार्थ्यांना मराठी भाषेच्या अभ्यासातून सूट देण्याचे अधिकार संबंधित माध्यमिक व उच्च माध्यमिक शिक्षण मंडळाचे राहतील. परंतु, मराठी भाषेच्या अभ्यासातून सूट मिळालेल्या विद्यार्थ्यांना माध्यमिक शालांत प्रमाणपत्र परीक्षेसाठी निर्धारित केलेली कोणतीही एक 'आधुनिक भारतीय भाषा' किंवा कोणतीही एक 'अभिजात भाषा' किंवा कोणतीही एक 'आधुनिक परकीय भाषा' अभ्यासता येईल.
२. भारतात स्थलांतरित होणाऱ्या परदेशी विद्यार्थ्यांनी महाराष्ट्राच्या इंग्रजी माध्यमाच्या शाळेत इयत्ता ९ वी किंवा इयत्ता १० वी मध्ये प्रवेश घेतल्यास आणि त्याने हिंदीचा अभ्यास करण्यापासून सूट मागितल्यास, त्याला शाळाप्रमुखांच्या शिफारशीने स्वतःच्या जबाबदारीवर आणि महाराष्ट्र राज्य व उच्च माध्यमिक शिक्षण मंडळाच्या पूर्व परवानगीने माध्यमिक शालांत प्रमाणपत्र परीक्षेसाठी निर्धारित केलेली कोणतीही एक 'आधुनिक भारतीय भाषा' किंवा कोणतीही एक 'अभिजात भाषा' किंवा कोणतीही एक 'आधुनिक परकीय भाषा' हिंदी भाषेऐवजी अभ्यासता येईल. तथापि, ही भाषा विद्यार्थ्याने निवडलेल्या द्वितीय भाषेपेक्षा वेगळी असेल.
३. परदेशी पालकांच्या पाल्यांनी इंग्रजी माध्यमाच्या शाळांत इयत्ता ५ वी ते इयत्ता १० वी मध्ये कोणत्याही इयत्तेत प्रवेश घेतल्यास त्यांना मराठी व हिंदी भाषा अभ्यासण्यापासून सूट राहिल. असे विद्यार्थी ज्या भाषा माध्यमाच्या शाळेत प्रवेश घेतील ते भाषा माध्यम ही त्यांची प्रथम भाषा राहिल. या व्यतिरिक्त या विद्यार्थ्यांना उर्वरित कोणत्याही दोन भाषा 'आधुनिक भारतीय भाषा' किंवा 'अभिजात भाषा' किंवा 'आधुनिक परकीय भाषा' या संवर्गातून निवडून त्यांना भाषांकरिता शासनाने विहित केलेला अभ्यासक्रम पूर्ण करावा लागेल. तसेच, अनिवासी भारतीयांच्या पाल्यांनी



इंग्रजी माध्यमाच्या शाळांत जर इयत्ता ५ वीत प्रवेश घेतला व ते किमान सलग चार वर्षे (इयत्ता ५ वी, इयत्ता ६ वी, इयत्ता ७ वी व इयत्ता ८ वी) शिक्षण घेणार असतील तर त्यांना हिंदी संपूर्ण भाषेचा विहित अभ्यासक्रम पूर्ण करावा लागेल. अशा विद्यार्थ्यांना मराठी भाषेचा अभ्यास करण्यापासून सूट राहिल व त्याऐवजी त्यांना कोणतीही एक भाषा 'आधुनिक भारतीय भाषा' किंवा 'अभिजात भाषा' किंवा 'आधुनिक परकीय भाषा' या संवर्गातून निवडून त्या भाषेकरिता शासनाने विहित केलेला अभ्यासक्रम पूर्ण करावा लागेल. अशा विद्यार्थ्यांनी आणखी दोन वर्षे सलग (इयत्ता ९ वी, १० वी) शिक्षण घेतल्यास, त्यांना वर नमूद केल्याप्रमाणेच भाषांचा विहित अभ्यासक्रम पूर्ण करावा लागेल.

ज्या अनिवासी भारतीयांच्या पाल्यांनी उच्च प्राथमिक स्तरावर (इयत्ता ६ वी, इयत्ता ७ वी, इयत्ता ८ वी) कोणत्याही इयत्तेत प्रवेश घेतल्यास त्यांना त्या त्या इयत्तेसाठी हिंदी (संपूर्ण) भाषेचा शासनाने विहित केलेला अभ्यासक्रम पूर्ण करावा लागेल व अशा विद्यार्थ्यांना मराठी भाषेचा अभ्यास करण्यापासून सूट राहिल व त्याऐवजी त्यांना वरीलप्रमाणेच कोणत्याही एका भाषेचा शासनाने विहित केलेला अभ्यासक्रम पूर्ण करावा लागेल.

ज्या अनिवासी भारतीयांच्या पाल्यांनी इंग्रजी माध्यमाच्या शाळांत माध्यमिक स्तरावर कोणत्याही इयत्तेत (इयत्ता ९ वी, इयत्ता १० वी) प्रवेश घेतल्यास, त्यांना मराठी व हिंदी भाषा अभ्यासण्यापासून सूट राहिल. असे विद्यार्थी ज्या भाषा माध्यमाच्या शाळांत प्रवेश घेतील ते भाषा माध्यम त्यांची प्रथम भाषा राहिल. या व्यतिरिक्त या विद्यार्थ्यांना उर्वरित कोणत्याही दोन भाषा 'आधुनिक भारतीय भाषा' किंवा 'अभिजात भाषा' किंवा 'आधुनिक परकीय भाषा' या संवर्गातून निवडून त्या भाषांकरिता शासनाने विहित केलेला अभ्यासक्रम पूर्ण करावा लागेल.

जे परदेशी नागरिक किंवा अनिवासी भारतीय राज्यात आल्यानंतर कायमस्वरूपी भारतीय नागरिकत्व स्वीकारतील आणि अशा पालकांचे पाल्य जर असे नागरिकत्व स्वीकारल्यानंतर इंग्रजी माध्यमाच्या शाळांत इयत्ता ५ वीत प्रवेश घेत असतील आणि पुढे ते सलग इयत्ता १० वी पर्यंत शिक्षण घेणार असतील तर अशा विद्यार्थ्यांना शासनाने विहित केलेली माध्यमनिहाय भाषा विषय अभ्यास योजना जशीच्या तशी लागू राहिल.

वर नमूद केलेल्या मराठी व हिंदी भाषा अभ्यासण्यास सवलत मिळण्यासाठी अशा विद्यार्थ्यांनी शैक्षणिक वर्ष सुरू होण्यापूर्वी अथवा शाळेत प्रवेश घेतल्याबरोबर त्यांच्या शाळाप्रमुखांकडे अर्ज करावा. शाळाप्रमुखांनी शिफारस केल्यानंतर इयत्ता ५ वी ते इयत्ता ९ वीकरिता संबंधित विभागाचे विभागीय शिक्षण उपसंचालक यांची पूर्व परवानगी प्राप्त करावी. एकदा इयत्ता ५ वी ते इयत्ता ९ वीमध्ये अशी सवलत मिळाल्यावर इयत्ता १० वी साठी पुन्हा मंडळाकडे सवलतीसाठी वेगळा अर्ज करण्याची आवश्यकता नाही. तथापि, अशी सवलत दिल्याचे संबंधित शिक्षण उपसंचालकांनी विभागीय मंडळास कळवावे. इयत्ता १० वीत प्रवेश घेणाऱ्या विद्यार्थ्यांच्या बाबतीत शाळाप्रमुख आपल्या शिफारशीसह विद्यार्थ्यांचा अर्ज विभागीय माध्यमिक व उच्च माध्यमिक शिक्षण मंडळाकडे पाठवतील व संबंधित विभागीय मंडळाची परवानगी प्राप्त करतील.





## परिशिष्ट 'ब'

विषय योजना व तासिका विभागणी (इयत्ता ९ वी आणि १० वी )

(एका आठवड्यासाठी)

अ. क्र.	विषय	तासिका	
		इयत्ता ९ वी	इयत्ता १० वी
१.	प्रथम भाषा	०६	०६
२.	द्वितीय भाषा किंवा संयुक्त भाषा	०४/२+२	०४/२+२
३.	तृतीय भाषा	०८	०८
४.	माहिती संप्रेषण तंत्रज्ञान	०२	०२
५.	गणित (बीजगणित + भूमिती) किंवा सामान्य गणित (अ. भाग-१ + ब. भाग-२)	०७	०७
६.	विज्ञान आणि तंत्रज्ञान	०८	०८
७.	सामाजिकशास्त्रे (अ) इतिहास + नागरिकशास्त्र (ब) भूगोल + अर्थशास्त्र	०६	०६
	<b>शालेय श्रेणी विषय</b>		
८.	आरोग्य व शारीरिक शिक्षण	०३	०३
९.	व्यक्तिमत्व विकास	०२	०२
१०.	कार्यशिक्षण/पूर्वव्यावसायिक अभ्यासक्रम	०२	०२
११.	एम.सी.सी. (इयत्ता ९ वी साठी)/समाजसेवा/ स्काऊट/गाईड/नागरी संरक्षण व वाहतूक सुरक्षा/संरक्षणशास्त्र /एन.सी.सी./व्यवसाय मार्गदर्शन	०२	--
	<b>एकूण</b>	<b>५०</b>	<b>५०</b>

- टीपा : (१) प्रथम, द्वितीय आणि तृतीय या तीन भाषांना एकूण १८ तासिका आहेत. मुख्याध्यापकांनी भाषा विषयांच्या भाषानिहाय तासिका विभागणीत बदल करण्यास हरकत नाही.
- (२) वरील तासिका विभागणीमध्ये मुख्याध्यापकांनी आवश्यकतेनुसार गरजेनुसार सकारण बदल करण्यास हरकत नाही.



## परिशिष्ट 'क'

### मूल्यमापन योजना (इयत्ता ९वीं आणि १०वी)

अ. क्र.	विषय	लेखी परीक्षा			तोंडी परीक्षा गुण	प्रात्यक्षिक परीक्षा		एकूण गुण	
		प्रश्न पत्रिका संख्या	गुण	कालावधी		गुण	कालावधी	इ. ९ वी	इ. १० वी
१.	प्रथम भाषा	०१	८०	०३	२०	--	--	१००	१००
२.	द्वितीय भाषा किंवा संयुक्त भाषा	०१	८०	०३	२०	--	--	१००	१००
		०२	४०+४०	०२+०२	१०+१०	--	--	१००	१००
३.	तृतीय भाषा	०१	८०	०३	२०	--	--	१००	१००
४.	माहिती संप्रेषण तंत्रज्ञान	०१	४०	०२	--	१०	--	५०	श्रेणी
५.	गणित (बीजगणित+भूमिती) किंवा सामान्य गणित (भाग-१+भाग-२)	०२	४०+४०	०२ प्रत्येकी	--	२० अंतर्गत मूल्यमापन	--	१००	१००
		०२	४०+४०	०२ प्रत्येकी	--	२० अंतर्गत मूल्यमापन	--	१००	१००
६.	विज्ञान आणि तंत्रज्ञान	०१	६०	२ तास ३० मिनिटे		२० (प्रात्य.) २० बहुपर्यायी प्रश्न	१ तास ३० मिनिटे ३० मिनिटे	१००	१००
७.	सामाजिकशास्त्रे (अ) इतिहास+ना.शास्त्र (ब) भूगोल+अर्थशास्त्र	०१	२८+१२	०२	--	१०	--	१००	१००
		०१	२८+१२	०२	--	१० अंतर्गत मूल्यमापन	--	--	--
८.	आरोग्य व शारीरिक शिक्षण	०१	२५	१.५	--	२५	--	५०	श्रेणी
९.	व्यक्तिमत्व विकास	०१	५०	०२	--	--	--	५०	श्रेणी
१०.	कार्यशिक्षण/पूर्वव्यावसायिक अभ्यासक्रम	--	--	--	--	--	--	श्रेणी	श्रेणी
११.	एम.सी.सी.(फक्त ९वी साठी)/ समाजसेवा/स्काउट/गाईड/ नागरी संरक्षण व वाहतूकसुरक्षा/संरक्षणशास्त्र/ एन.सी.सी.व्यवसाय मार्गदर्शन	--	--	--	--	--	--	श्रेणी	--
		--	--	--	--	--	--	श्रेणी	श्रेणी
	एकूण							७५०	६००



## टीपा

१. सर्व विषयांसाठी उत्तीर्णतेसाठी ३५% गुण आवश्यक राहतील. त्यामध्ये किमान २५% गुण प्राप्त होणे आवश्यक आहे.
२. ३०० गुणांच्या तीन भाषा विषयांचा गट उत्तीर्णतेसाठी एकत्रित असेल. या तीन भाषा विषयांच्या एकत्रित गटमध्ये उत्तीर्णतेसाठी किमान १०५ गुण आवश्यक राहतील.
३. माध्यमिक अभ्यासक्रमातील इ. ९ वी व इ. १० वीच्या प्रचलित कार्यानुभव विषयांतर्गत येणारा माहिती तंत्रज्ञान या विषयाऐवजी नव्याने माहिती संप्रेषण तंत्रज्ञान (ICT) या विषयाचा अनिवार्य गटामध्ये समावेश करण्यात येत आहे. त्यासाठी आठवड्यात दोन तासिका राहतील. सदर विषयाचा अभ्यासक्रम ५० गुणांचा असून त्यामध्ये ४० गुण लेखी परीक्षा व १० गुण प्रात्यक्षिक परीक्षेसाठी राहतील. लेखी परीक्षा मंडळामार्फत आयोजित करण्यात येईल. सदर विषयाचे इ. १० वी चे संपादित गुण एकूण गुणात समाविष्ट न करता श्रेणी स्वरूपात दर्शविण्यात येतील. सदर विषयाचे माध्यम मराठी व इंग्रजी राहिल. जून २०१२ पासून इ. ९ वी साठी व जून २०१३ पासून या विषयाची कार्यवाही सुरू होईल.
४. गणित (बीजगणित + भूमिती) व विज्ञान आणि तंत्रज्ञान या विषयाच्या उच्चकृत अभ्यासक्रमाची अंमलबजावणी इ. ९ वी साठी २०१०-२०११ व इ. १० वी साठी २०११-२०१२ या शैक्षणिक वर्षापासून सुरू झालेली असली तरी इ. ९ वी व इ. १० वी च्या विज्ञान पर्यावरण संदर्भातील (सर्वोच्च न्यायालयाच्या निर्णयानुसार) घटकांचे नव्याने समावेश करण्यात येत असून व त्यानुसार इ. ९ वी या विज्ञान विषयाचा अभ्यासक्रम जून २०१२ व इ. १० वी साठी अभ्यासक्रम जून २०१३ पासून कार्यान्वित होईल.
५. सर्व विषयांच्या मूल्यमापनामध्ये परीक्षेच्या गुणांमध्ये सारखेपणा असावा. एकूण परीक्षांच्या दिवसांचा विद्यार्थ्यांवर ताण राहू नये. तसेच महाराष्ट्र राज्य अभ्यासक्रम आराखडा-२०१० या मसुद्यास शासन मान्यता मिळालेली असल्यामुळे इतर विषयांप्रमाणेच गणित विषयासाठी १५० गुणांऐवजी १०० गुणांची परीक्षा राहिल. १०० गुणांमध्ये ८० गुण लेखी परीक्षा व २० गुण अंतर्गत मूल्यमापनासाठी राहतील. हा बदल इ. ९ वी साठी जून २०१२ पासून व इ. १० वी साठी जून २०१३ पासून अंमलात येईल.
६. गणित विषयाच्या मूल्यमापनामध्ये बदल झाला असला तरी विषयाच्या तासिकांची संख्या कमी होणार नाही.
७. पर्यावरण शिक्षण हा विषय इ. ९ वी व इ. १० वी साठी सर्व विषयांमध्ये एकात्मिक स्वरूपात राहिल, त्यामुळे पर्यावरण शिक्षण या विषयासाठी असलेल्या तासिका - माहिती संप्रेषण तंत्रज्ञान या विषयासाठी राहतील.



## मराठी (प्रथम भाषा)

### प्रास्ताविक

भाषा ही मानवाची विशेष निर्मिती आहे. मानवी व्यवहाराचे ते एक प्रभावी माध्यम आहे. भाषिक व्यवहारासाठी, विचार व्यक्त करण्यासाठी आणि स्वतःच्या विकासासाठी मानवाने तिचा सातत्याने विकास केला. ज्ञानसंपादनाचे आणि अभिव्यक्तीचे भाषा हे एक समर्थ साधन आहे.

भाषेच्या माध्यमातून विद्यार्थ्यांना संस्कारित करून, त्यांच्या भाषेचे कलात्मक रूप जोपासणे आणि ते वृद्धिंगत करणे अपरिहार्य आहे.

देशप्रेम, राष्ट्रभक्ती, राष्ट्रीय एकात्मता, विश्वबंधुत्व, विज्ञाननिष्ठा, सर्वधर्मसमभाव, नैतिक मूल्ये, निसर्गप्रेम, श्रमप्रतिष्ठा आणि सामाजिक जाणीव यांचा विकास भाषेमुळेच साधला जातो.

### सर्वसामान्य उद्दिष्टे

- १) विद्यार्थ्यांची आत्मप्रकटीकरणात्मक भाषिक कौशल्ये विकसित करणे.
- २) भाषाविषयक ग्रहणशक्तीचा विकास करणे.
- ३) वाङ्मयाबद्दल आवड निर्माण करणे.
- ४) सत्प्रवृत्तींचे पोषण करून चिकित्सक वृत्तीची जोपासना करणे.
- ५) नवनिर्मिती व आत्माविष्कार शक्तींचा विकास करणे.
- ६) आधुनिक भाषाविज्ञानाची ओळख करून देणे.
- ७) प्रचलित जीवनातील वास्तविकता लक्षात आणून देऊन दहशतवाद, भ्रष्टाचार, लोकसंख्या वाढ, ढासळलेली नीतिमूल्ये यांची जाणीव निर्माण करून सर्वांना समान संधी देण्याची व एकसंध समाज घडविण्याची प्रेरणा देणे.
- ८) दृक्-श्राव्य साधनांच्या द्वारे भाषिक अनुभव वाढविणे.

- ९) विविध वाङ्मयीन प्रवाह, प्रकार, प्रवृत्ती यांचे आकलन वाढविणे.
- १०) विघातक शक्तींनी निर्माण केलेली अस्थिरता लक्षात घेऊन विद्यार्थ्यांत आत्मविश्वास निर्माण करून संकटांना सामोरे जाण्याची क्षमता निर्माण करणे.
- ११) माहिती-तंत्रज्ञान, पर्यावरण यांची आणि जागतिकीकरणाच्या समस्यांची ओळख करून देणे व त्यांच्या आव्हानांना सामोरे जाण्यासाठी विद्यार्थ्यांना समर्थ करणे.
- १२) विद्यार्थ्यांमध्ये स्वयं-अध्ययनाची आवड निर्माण करणे व त्यांना अभ्यासासाठी प्रवृत्त करणे.
- १३) भाषेचा दैनंदिन व्यवहारात उपयोग करता यावा या दृष्टीने व्यावहारिक भाषेत प्रावीण्य मिळवून देणे.

### उद्दिष्टे

- १) विद्यार्थ्यांचा शब्दसंग्रह वाढवून त्याचा दैनंदिन व्यवहारात उपयोग करण्यास शिकविणे आणि विद्यार्थ्यांमध्ये उद्यमशीलतेची प्रेरणा निर्माण करून व्यावहारिक भाषेत प्रावीण्य मिळवून देणे.
- २) श्रवण, संभाषण, भाषण, वाचन, लेखन, आकलन आणि स्वतंत्र अभिव्यक्ती या क्षमता व कौशल्ये यात वाढ करणे.
- ३) ज्ञान आणि आनंदप्राप्तीसाठी वाचनाची आवड निर्माण करणे.
- ४) मराठी भाषेतील विविध साहित्यिकांची व साहित्यप्रकारांची ओळख करून देणे.
- ५) विद्यार्थ्यांच्या ठिकाणी आपली भाषा, साहित्य, संस्कृती, राष्ट्र, मानवता, विज्ञाननिष्ठा, सर्वधर्मसमभाव व स्त्री-पुरुष समानता, वडीलधान्यांबद्दल आदरभावना, नैतिक मूल्ये, निसर्गप्रेम, श्रमप्रतिष्ठा आणि सामाजिक जाणीव इ. गुणांची वाढ व जोपासना करणे.



- ६) अन्य भाषाभगिनी तसेच मराठीच्या विविध बोलीभाषांबद्दल आपुलकी निर्माण करणे.
- ७) चित्रपट, आकाशवाणी, दूरदर्शन, संगणक, ई-मेल, इंटरनेट, मोबाईल इ. दृक्-श्राव्य साधनांच्या द्वारे भाषिक अनुभव वाढविणे.
- ८) माहिती तंत्रज्ञान, पर्यावरण आणि जागतिकीकरणाच्या समस्यांची ओळख करून देऊन त्यांच्या आव्हानांना सामोरे जाण्यासाठी समर्थ करणे.
- ९) विद्यार्थ्यांमध्ये स्वयं-अध्ययनाची आवड निर्माण करून त्यांना अभ्यासासाठी प्रवृत्त करणे.
- १०) भाषेची मूलभूत संरचना आणि अभ्यासक्रमातील व्याकरणाचे घटक समजावून देणे.

#### इयत्ता १ वी

**गद्य विभाग** सुमारे ८० पृष्ठे

(प्रस्तावना, टीपा, स्वाध्याय वगळून) स्वयंअध्ययनासाठी पाठ नसेल. स्थूलवाचन हा स्वतंत्र विभाग असेल (४ पाठ) प्राचीन गद्य - २ पाठ

**पद्य विभाग**

सुमारे २०० ओळी पैकी प्राचीन पद्य ५० ओळी. (अभंग, पंडिती काव्य, पद, विराणी, पोवाडा, फटका इ.)

**व्याकरण**

१. अलंकार-यमक, अनुप्रास, उपमा, अनन्वय.
२. अव्यये - क्रियाविशेषण, केवलप्रयोगी, उभयान्वयी, शब्दयोगी.
३. दिलेल्या शब्दातील अक्षरांपासून अर्थपूर्ण शब्द तयार करणे.
४. पर्यायी शब्द.
५. लेखननियमांनुसार शब्द लिहिणे (लेखननियम पाठ्यपुस्तकात देणे आवश्यक).
६. विरामचिन्हे - विरामचिन्हांचा वापर करणे.

**वाक्प्रचार व म्हणी**

अर्थ सांगून वाक्यात उपयोग करणे.

**निबंध लेखन**

चित्रावरून, प्रसंगावरून, कल्पनाविस्तार, आत्मवृत्त

(निबंधासाठी प्रमाण भाषेतील/बोली भाषेतील लेखन चालेल). साधकबाधक मुद्दे मांडणे आवश्यक. अभिव्यक्तीस प्राधान्य.

**गद्य आकलन/सारांशलेखन** - अपठित गद्यउतारा.

**उपयोजित मराठी**

१. पत्रलेखन - निमंत्रण, आभार, अभिनंदन, मागणी, चौकशी.
२. वृत्तलेखन
३. जाहिरात लेखन
४. कथापूर्ती
५. बोलीभाषेतील उतारे - बोलीभाषेतील उतार्यांचे प्रमाणभाषेत रूपांतर करणे.

**संवादकौशल्ये** : (तोंडी परीक्षा)

**भाषापरिचय** : भाषेची संरचना (पाठ्यपुस्तकात देणे, गुण नाहीत).

**पूरक वाचन** वाचनकौशल्यासाठी वाचनीय पुस्तकांची यादी देणे (गुण नाहीत).

शालेय स्तरावर पूरकवाचनाच्या पुस्तकांवर आधारित १० गुणांची परीक्षा शाळा घेऊ शकतील (परीक्षा घेणे सक्तीचे नाही).

#### इयत्ता १० वी

**गद्य विभाग** सुमारे ८० पृष्ठे

(प्रस्तावना, टीपा, स्वाध्याय वगळून) स्वयंअध्ययनासाठी पाठ नसेल. स्थूलवाचन हा स्वतंत्र विभाग असेल - ४ पाठ. प्राचीन गद्य २ पाठ.

**पद्य विभाग** सुमारे २०० ओळीपैकी प्राचीन पद्य ५० ओळी. (अभंग, पंडिती काव्य, पद, विराणी, पोवाडा, फटका इ.).

**व्याकरण**

- १) अलंकार - रूपक, उत्प्रेक्षा, व्यतिरेक,



- २) समास - द्वंद्व (इतरेतर, वैकल्पिक, समाहार), द्विगु, अव्ययीभाव.
- ३) पर्यायी शब्द
- ४) लेखननियमांनुसार शब्द लिहिणे (लेखननियम पाठ्यपुस्तकात देणे आवश्यक).
- ५) विरामचिन्हे - विरामचिन्हांचा वापर करणे.

**वाक्प्रचार व म्हणी :** अर्थ सांगून वाक्यात उपयोग करणे.

**निबंधलेखन :**

प्रसंगावरून, कल्पनाविस्तार, आत्मवृत्त, वैचारिक निबंधासाठी प्रमाणभाषेतील बोलीभाषेतील लेखन चालेल. साधकबाधक मुद्दे मांडणे आवश्यक. अभिव्यक्तीस प्राधान्य.

**गद्य आकलन/सारांशलेखन -** अपठित गद्यउतारा.

**उपयोजित लेखन**

१. पत्रलेखन - कौटुंबिक, मागणी, विनंती, तक्रार.
२. निमंत्रणपत्रिका

३. आवेदनपत्र
४. अहवाललेखन - (शालेय कार्यक्रम)
५. अभिप्रायलेखन(पुस्तक, नाटक, संगीत, चित्र)
६. बोलीभाषेतील उतारे (बोलीभाषेतील उताऱ्यांचे प्रमाणभाषेत रूपांतर करणे)

**संवादकौशल्ये :** (तोंडी परीक्षा)

**भाषापरिचय :** चिन्हव्यवस्था (पाठ्यपुस्तकात देणे, गुण नाहीत)

**पूरक वाचन :** वाचनकौशल्यासाठी वाचनीय पुस्तकांची यादी देणे (गुण नाहीत).







## 1.2

# हिंदी

(प्रथम भाषा)

### भूमिका

भाषा मनुष्य की आवश्यक तथा विशिष्ट निर्मिति है। भाषा के माध्यम से ही मनुष्य ने विविध क्षेत्रों में अपनी प्रगति की है। भाषा का व्यवहार ज्ञानसंपादन, संप्रेषण, दैनंदिन व्यवहार तथा सरकारी कामकाज आदि विविध स्तरों पर होता है। क्षेत्र के अनुसार भाषिक प्रयोग में कुछ परिवर्तन होते हैं।

भारत बहुभाषी देश है। यहाँ अनेक प्रांतीय भाषाएँ बोली जाती हैं। वर्तमान युग में हिंदी संपर्क भाषा के रूप में कार्यरत है। महाराष्ट्र राज्य में कक्षा पाँचवीं से ही हिंदी भाषा का अध्ययन-अध्यापन प्रारंभ होता है। उसमें समय-समय पर परिवर्तन तथा परिवर्धन होता रहता है। हिंदी के परंपरागत तथा नूतन अनुप्रयोगों से परिचित कराने की दृष्टि से प्रस्तुत पाठ्यक्रम की निर्मिति की गई है। इसमें एन. सी. ए. २०१० के मार्गदर्शक तत्वों का आधार लिया गया है।

भाषा का मुख्य व्यवहार साहित्य के क्षेत्र में होता है। साहित्य के माध्यम से मूल्यसंवर्धन होता है। उससे छात्र ज्ञानार्जन के साथ-साथ भाषात्मक विकास कर पाता है जिससे उसके व्यक्तित्व एवं चरित्र का निर्माण होता है। इस दृष्टि से प्रस्तुत पाठ्यक्रम में साहित्य की विधाओं को कक्षा-स्तर के अनुसार समाविष्ट करने की योजना है।

केंद्र सरकार के स्तर पर हिंदी शासकीय कामकाज की भाषा है। इस दृष्टि से पाठ्यक्रम में उसके व्यावहारिक रूप का समावेश भी जरूरी हो जाता है। वर्तमान युग मिडिया का है। प्रिंट एवं इलेक्ट्रॉनिक मिडिया में हिंदी का काफी प्रचलन है। अतः पाठ्यक्रम में प्रयोजन मूलक हिंदी का समावेश जरूरी है। इस दृष्टि से उच्च माध्यमिक स्तर पर 'व्यावहारिक हिंदी' का विकल्प रखने की योजना है।

वर्तमान युग की आवश्यकताएँ, छात्रों की क्षमताएँ तथा अध्यापन की सीमाओं को ध्यान में रखते हुए निम्नलिखित उद्देश्य प्रस्तुत किए गए हैं।

१) हिंदी का मानक एवं प्रभावपूर्ण प्रयोग।

- २) ज्ञानप्रसार तथा संप्रेषण तंत्रज्ञान संबंधी कौशल विकसित करना। स्वयं रोजगार के लिए आवश्यक जीवनकौशल का विकास करना।
- ३) छात्रों में नैतिक, मानसिक ऊर्जा का संवर्धन करके, स्वतंत्र सोच तथा समाजविघातक शक्तियों का सामना करने की क्षमता विकसित करना। सार्वजनिक संपत्ति एवं सांस्कृतिक विरासतों के प्रति रक्षाभान निर्माण करना।
- ४) प्राकृतिक संसाधनों का विकास एवं उनका एक साथ उपयोग करने की क्षमता विकसित करना।
- ५) भारतीय संस्कृति के बलस्थानों का परिचय देना। राष्ट्र की सामाजिक, आर्थिक चुनौतियों की पहचान कराना। अतीत के ज्ञान के माध्यम से वर्तमान तथा भविष्य के प्रति सचेत बनाना। समाज के दुर्बल घटकों तथा महिलाओं के सबलीकरण की आवश्यकता का महत्व बताना।
- ६) छात्रों में स्वतंत्रता, न्याय, बंधुता तथा विविधता के प्रति आदरभाव निर्माण करना। विविधता में एकता, सर्वधर्मसमभाव, सामाजिक सुसंवाद तथा समता आदि मूल्यों को आत्मसात कराना।
- ७) वैश्वीकरण, स्थानीयीकरण, निजीकरण तथा आधुनिकीकरण का तालमेल बिठाते हुए परस्परालंबन की भावना का एहसास दिलाना।
- ८) छात्रों में मानक हिंदी उच्चारण, संभाषण तथा लेखन आदि तत्वों का विकास करना। श्रवण, आकलन तथा मूक एवं प्रकट वाचन का कौशल विकसित करना।
- ९) पाठ्यपुस्तक के अतिरिक्त समाचारपत्र तथा मासिक पत्रिकाओं के प्रति छात्रों की रुचि जगाना। आकाशवाणी तथा दूरदर्शन द्वारा प्रसारित हिंदी के ज्ञानवर्धक कार्यक्रमों के प्रति रुचि जगाना।



अनूदित साहित्य-पठन की ओर छात्रों को प्रेरित कराना।

- १०) साहित्य के माध्यम से भाषा की कलात्मक खूबियों को स्पष्ट करते हुए छात्रों में सौंदर्यबोध तथा रसास्वादन की क्षमता विकसित करना। मनोरंजन के साथ ज्ञान-संवर्धन करना।

एन.सी.ई.आर.टी. द्वारा पुनःसृजित पाठ्यक्रम के आधार पर महाराष्ट्र राज्य पाठ्यक्रम प्रारूप - २०१० (राज्य अभ्यासक्रम आराखडा २०१०) के अनुसार प्रथम भाषा नौवीं तथा दसवीं का पाठ्यक्रम तैयार किया गया है। पाठ्यक्रम की पुनर्रचना करते समय छात्रों की आयु, रुचि एवं बौद्धिक क्षमता तथा आवश्यकताओं को ध्यान में रखा गया है।

भारत जैसे बहुभाषी राष्ट्र में हिंदी संपर्क भाषा के रूप में कार्यरत है। अहिंदी भाषिक क्षेत्र में प्रथम भाषा के रूप में हिंदी के पठन, लेखन एवं मौखिक संप्रेषण पर बल दिया गया है। हिंदी साहित्य के साथ अनूदित साहित्य तथा अहिंदी भाषिक लेखकों के हिंदी साहित्य को समाविष्ट करके पाठ्यक्रम को राष्ट्रीय एकात्मता की दिशा में अग्रसर किया है।

**पाठ्यक्रम के मुख्य उद्देश्य निम्नलिखित हैं।**

- १) हिंदी तथा अन्य भाषा से अनूदित साहित्य के प्रति रुचि निर्माण करना। छात्रों में सौंदर्यबोध विकसित करना।
- २) वैज्ञानिक पाठों के माध्यम से ज्ञानसंवर्धन करते हुए छात्रों में पर्यावरण रक्षण की भावना जगाना। वैज्ञानिकों के चरित्रों के आदर्शों से परिचित कराना। श्रमप्रतिष्ठा, उद्यमशीलता के मूल्य जगाना।
- ३) प्रिंट तथा इलेक्ट्रॉनिक मीडिया में हिंदी के अनुप्रयोग के प्रति सचेत कराना। समाचार पत्र, पत्रिकाओं के पठन हेतु छात्रों को प्रेरित करना।
- ४) सरकारी कार्यालयों में हिंदी के व्यावहारिक उपयोग तथा प्रयोग का ज्ञान कराना।
- ५) छात्रों में संभाषण कौशल का विकास करना।

#### कक्षा ९ वीं

१. गद्य - ६४ पृष्ठ (लगभग)  
अनुमानित १४ गद्य पाठ

कहानी ५

निबंध ४

एकांकी १

विज्ञान/पर्यावरण १

हास्य व्यंग्य २

यात्रावर्णन १

#### २. पद्य - २०० पद्य पंक्तियाँ (लगभग)

कविताएँ १२

मध्ययुगीन ३

आधुनिक ९

#### ३. स्थूलवाचन (विविधा) २४ पृष्ठ (लगभग)

#### ४. व्याकरण :

संयुक्ताक्षर, विरामचिह्नों का परिचय, शुद्ध प्रयोग, पदपरिचय-संज्ञासर्वनाम, विशेषण, क्रिया, लिंग, वचन, कारक, अव्यय, संधि, मुहावरे, कहावतें, दोहाचौपाई

#### ५. रचना विभाग

निबंध - कल्पनात्मक, विचारात्मक, वर्णनात्मक, आत्मकथात्मक, सारांश लेखन, आकलन।

#### ६. प्रयोजनमूलक हिंदी

पत्र-कार्यालयीन, व्यावसायिक, कार्यक्रमपत्रिका, निवेदन, निमंत्रण, समाचारलेखन, पारिभाषिक शब्दावली।

#### ७. संभाषण कौशल

#### कक्षा १० वीं

#### १. गद्य - ६४ पृष्ठ (लगभग)

अनुमानित १४ गद्य पाठ

कहानी ५

निबंध ४

एकांकी ४

विज्ञान/पर्यावरण १



हास्य-व्यंग्य २

यात्रावर्णन १

२. पद्य – २०० पद्य पंक्तियाँ

कविताएँ १२

मध्ययुगीन ३

आधुनिक ९

३. स्थूलवाचन (विविधा) २४ पृष्ठ (लगभग)

४. व्याकरण

संयुक्ताक्षर, विरामचिह्नों का परिचय, शुद्ध प्रयोग,  
पदपरिचय – संज्ञा, सर्वनाम, विशेषण, क्रिया, लिंग,  
वचन, कारक अव्यय, संधि, कहावतें मुहावरे वाक्य –  
उपवाक्य, छंद, वर्ण, यति, मात्रा, गण परिचय, दोहा,  
चौपाई, सोरठा, गीतिका।

५. रचना विभाग

निबंध – कल्पनात्मक, विचारात्मक, वर्णनात्मक,  
आत्मकथात्मक,सारांश लेखन, आकलन-गद्य/पद्य

६. प्रयोजनमूलक हिंदी

पत्र – कार्यालयीन, व्यावसायिक, कार्यक्रमपत्रिका,  
निवेदन, निमंत्रण, समाचारलेखन, पारिभाषिक शब्दावली  
आदी।

७. संभाषण कौशल



◆ महत्वपूर्ण : इस प्रारूप में आवश्यकतानुसार परिवर्तन करने का अधिकार 'मंडल' के 'हिंदी अध्ययन परिमंडल' को रहेगा ।



# Urdu

(First Language)

## Introduction

Urdu is a modern Indian language. A mere glimpse of the history of the origin and development of the Urdu language suggests that, during the course of its development Urdu has been influenced and enriched from Arabic, Persian, Turkish, Khadi Boli, and Punjabi etc.

As far as the early development of Urdu language is concerned the credit goes to southern part of India including Maharashtra. Marathi saints like Namdeo and Eknath composed poetry not only in Marathi but also in mixed idiom. This was later developed into Deccani Urdu by other poets and prose writers of South India. Therefore, Urdu is also a heritage of Maharashtra.

Through the course of its evaluation and development of Urdu has assimilated all thoughts and enriched by the poets and writers belonging to all caste and religion and it is therefore, that, the Urdu is regarded as true representative of 'Ganga-Jamuni Tahzeeb.'

Besides, Urdu language has played instrumental role in the freedom struggle of India, The slogan of 'INQUALAB ZINDABAD' which infused fresh soul, is the body of freedom fighters that belongs to Urdu.

It is therefore, that, the rich literary treasure of Urdu language which is a mixture of different thoughts, culture and religion are not only to be preserved but to be spread. Because, the true secularism which the Urdu language has produced and maintained is much needed for the Secular

India and hence all such thoughts which are relevant to the present times are to be included in the syllabus and taught at Secondary and Higher Secondary levels.

General Objectives :

**To enable the students to :**

1. Acquire ability to make correct pronunciation at the time of the reciting a poem or reading a story individually.
2. Develop skill of patient listening and speaking.
3. Develop skill to enrich vocabulary and its meaning.
4. Develop the ability of comprehension and writing skills. Develop skill of creative and imaginative language and to develop oral skills to express different ideas.
5. Develop creative and imaginative use of Urdu language.
6. Develop the skill of use of Urdu as a tool to acquire of other subjects knowledge.
7. Acquire ability to understand literary works of writers and poets.
8. Acquire ability to get acquainted with different forms of Urdu literature.
9. Create interest in appreciation of linguistic beauty of different literary work.
10. Acquire ability to understand text content, criticise, compare with other literary forms.



11. Acquire ability to understand subjects through the medium of the language.

### **Specific Objectives : 'A'**

1. to develop awareness of national integration and patriotism.
2. to develop positive attitude and confidence and to arouse noble sentiment through Urdu language.
3. to nurture a sense of national identity.
4. to respect India's common and cultural heritage.
5. to develop awareness of unity in diversity.
6. to acquire scientific temper and rational behaviour.
7. to respect human rights and socio-cultural values.
8. to develop sense of gender equality.
9. to develop the ability to understand the Urdu literature in a tension free environment.
10. to have the knowledge of right to education, right to information
11. to understand adverse effects of alcohol.
12. to acquire the ability to make use of computer, internet, on line education etc.

### **Specific Objectives : 'B'**

#### **Language Skills**

1. to develop the skills of listening, reading, writing and speaking.
2. to enable student to develop the ability to appreciate poetic beauty, figures of speech etc.
3. to develop the ability to differentiate be-

- tween speakers satire and humour.
4. to develop concentration power for creative writing and understanding.
5. to develop the skill of students to express their ideas in debates.
6. to enable students to be a good speaker of a language.
7. to develop the skill of students to express spontaneous responses.
8. to develop the ability to make correct use of idioms, phrases and proverbs.
9. to develop the ability to understand the work of other languages through translation in Urdu.

### **Std. IX**

#### **Prose : About 64 pages**

(Excluding introductory note, exercises and glossary)

#### **Poetry : About 250 lines**

#### **Rapid Reading**

24 pages covering literary pieces like short stories, etc.

#### **Composition : Essay and composition.**

Total = 10

1. Expansion of ideas
2. Story-writing on given headings or outlines
3. Essay writing
  - a) Biographical
  - b) Descriptive
  - b) Imaginative

(Each of 200-250 words or about 20 to 25 lines)

Communication: Letter writing, Personal Skills : letters to relatives and friends.



Report writing Comprehension Understanding and explanation of poetical passages, prebis writing 80 to 100 words.

Grammar and portion studied in Std. VIII

1. Revision of the Figures of speech :
2. Adjectives
3. Voices
4. Idioms and proverbs arising out of the text.

Figures of speech. Simile - metaphor, tazaad etc.

#### Oral Skills :

**Std. X**

**Prose** : About 64

pages (Excluding introductory note, exercises etc.)

**Poetry**: About 250 lines.

#### Rapid Reading

24 pages covering literary pieces like one act play short stories, drama etc.

#### Composition

1. Reflective, Imaginative, humorous and Descriptive essays

2. Precis - writing
3. Expansion of ideas
4. Autobiographies Communication

Letter writing, Personal letters to friends and elders, applications for employer for leave and absenbe etc (about 10 exercises to be written during the course of the academic year) Report writing. Comprehension

1. Understanding and explanation of prose passage of about 80 to 100 words.
2. Precis writing 80 to 100 words.

#### Revision of Grammar and Portion studied in std. IX

1. Figures of speech
2. Simple, Compound and complex sentences
3. Idioms and proverb arising out of the text.
4. Talmeeh, Mubaligha-Tazad, Miratun nazeer, Tajness-e Taam and Tajneese Naquis.

#### Oral Skills





# Gujarati

(First Language)

## Introduction

Curriculum renewal is the continuous process as the needs and the aspirations of the society keep on changing. Even in this new millennium, some of the earlier and yet significant social concerns of our country have remained unchanged. But at the same time, there have arisen certain new concerns which need to be given prime importance.

Continuous contemplation, awareness and research are the prerequisites for making our education lively and relevant. Only then shall we be able to maintain the quality of education and to produce skilled and efficient citizens.

The curriculum gives paramount importance to the following points.

1. National identity for the fundamental social ethical cultural and spiritual heritage.
2. Need for strengthening unity and protecting cultural heritage.
3. Integrating curriculum with locally relevant knowledge with a view to making them cohesive and coherent.
4. The new curriculum offers suggestions to meet the challenges of globalization and the emergence of ICT (Information and Communication Technology)
5. Linking Education with Basic life skills.
6. Value Education.
7. Coherence of knowledge emotions and creativity.
8. Yoga and aesthetic development.

9. Making curriculum less content loaded.
10. Relating education with activity.
11. Introducing the upgraded National syllabus keeping in mind the trend and challenges of 21st century steps to overcome the problems faced by them and for future development.

The three foundations of curriculum, Appropriateness, Equality and Excellence have been taken into consideration. Moreover the element of flexibility is inherent in it. However, its success will be determined by the way in which educational Objectives are realized at various levels. i.e. from policy making to curricular framework, syllabus, textbooks and teachers. And finally in the classroom, in this long chain the syllabus is an important link between the curricular frameworks the teaching materials and the teachers.

At the Secondary level first language teaching aims at improving the communication skills, correctness in the usage of grammar and appropriate style of the learner, to use the language in real life situations-orally and in written form and developing reading comprehension at a reasonable speed. At the end of the Secondary education, learner should be able to use the first language orally and in written form effectively and the second language in a generally acceptable manner.

All human beings use language to express their feelings, so it is a means of communication, beside this, language is also a medium through which most of our knowledge is acquired; language expresses





our ideas, views, and other imagination. With the language we celebrate our trend and tradition.

Development of language is ultimately stimulated by our cultural heritage and the needs of social development, but we would not overlook the reverse dependence either. Human society can not do without language as the most important, most perfect and universal means of communication, expression of thoughts and accumulation and means of expression. It is equally important to realize that languages are not discrete objects our theme almost frozen in time and space, both physical and mental

The syllabi in Gujarati have been set to introduce the aims and to achieve the goal set by M.S.B.S and H.S.E. It enhances the basic language abilities like learning, speaking, reading, writing and thinking. For this purpose syllabus is prepared as per the age class and standards. The basic aim is to introduce 'Linguistic Units' and to develop linguistic skills of the students.

Last but not the least it is hoped that this will cater to the needs of the present education systems for which it is formulated.

### Objectives

To enable the students to

1. Understand Gujarati literature and increase competency to analyse different aspects of literature.
2. Develop competency to pronounce effectively and properly.
3. Increase vocabulary of the students and to make use of the same.
4. Increase competency to study other subjects through mother tongue.
5. Add to their vocabulary and modes of expression in their mother tongue.
6. To develop awareness of unity in diversity.
7. Increase the ability to use Gujarati with proper use of grammar.
8. Increase competency of listening, speaking, reading, writing and thinking
9. Respect India's historical, geographical and cultural heritage.
10. Increase the knowledge, to motivate the students for extra reading.
11. Know different types of literature and maintain their values.
12. Participate in different cultural program in mothertongue.
13. Develop the art of appreciation.
14. Increase cultural, moral and spiritual values through literature.
15. Improve their power of expression.
16. Develop scientific approach, self reliance and respect for all religions.
17. Develop originality, imagination power, creativity and appreciation of beauty.
18. Motivate students to use library.
19. Make students independent for future vocational life.
20. Prepare students to face and solve all natural calamities.
21. Understand the beauty of script.
22. Motivate the students to use reference books.
23. Encourage students for self-study.
24. Encourage students to prepare different projects.
25. Make learning process more interesting and joyful.
26. Encourage students to use Gujarati effectively and spontaneously.





27. Increase competency of writing and oral expressions.
28. Develop skill of information technology.

### **Specific Objectives**

#### **1. Listening Skill**

To enable the students to

1. Develop ability to listen with understanding to conversations, lectures, discussions, talks and various programmes presented through mass media and also activate ability to share ideas.
2. Develop ability to listen to others with patience.
3. Understand speaker's satire and humor.
4. Develop concentration power.

#### **2. Narration Skill**

To enable the students to

1. Use correct words with proper pronunciation.
2. Develop fluency in expressing their ideas.
3. Be good speakers of the language.
4. Develop their ability to express ideas spontaneously.

#### **3. Reading**

To enable the students to

1. Read about the short prose passage, dialogues and poems with proper pronunciation, and intonation.
2. Enrich vocabulary with the help of the knowledge of different types of literature.
3. Develop interest in literature through reading.
4. Make use of dictionaries and other reference materials.

5. Acquire skill of silent reading and understanding.

#### **4. Writing**

To enable the students to

1. Use appropriate words and know the beauty of script.
2. Use dictionary.
3. Develop ability of comprehension and writing skill.
4. develop creativity.
5. Acquire knowledge of the basic structure of the language idioms, figure of speech, phrases and proverbs.

#### **5. Thinking**

To enable the students to

1. Express their opinion about different aspect of literature.
2. Motivate students for comparative study.
3. Express their ideas and views for or against
4. motivate students to think independently.

#### **6. Understanding**

To enable the students to

1. Develop oral skills to enable them to answer questions and narrate incidents-experiences in a discussion mode; express ideas correctly and clearly with confidence.
2. Have a knowledge of dignity of labour.
3. Be aware about the problems like regionality, superstitions, population growth, pollution, terrorism, corruption, etc.

#### **7. Conversation**

To enable the students to

1. participate in debates, discussions,



elocution, drama, etc.

2. develop oral skills to enable students answer questions and narrate incidents. Develop confidence in discussing and express ideas, feelings correctly and clearly.
3. express their views on different subjects like social, political, scientific and cultural issues, etc.
4. introduce guest, express vote of thanks, etc.

#### 8. Grammar

To enable the students to

1. understand and know the basic rules of Grammar through wellknown Panini and Hembhandracharya.
2. acquire knowledge of the basic structure of language, idioms and principles of grammar.
3. know Noun, Pronoun, Sandhi, Compound.

#### Std IX

1. **PROSE** : About 64 pages.  
(Essay, part of an autobiographies, novels, short stories, one act plays, part of biographies, travelogues, critiques, humorous articles, satirical articles) (One lesson for self-study) It should be small in length.
2. **POETRY** : About 200 lines.  
Forms of Medieval literature- pada, akhyan, chappa, garbi, bodh kavya, folk-song, sonnet, gazzal, song, apadyagadya, poem on nature, Muktak, ancient and modern poetry (One poem for self-study) It should be small in length.
3. **RAPID READER** : About 24 pages.

Drama and laghu Katha (Short story)

#### 4. COMPOSITION

- a) Essays: Descriptive, Reflective, Imaginative, Autobiographical
- b) Precis
- b) Comprehension

#### 5. COMMUNICATION SKILL

- a) Letter writing
- b) Report writing
- b) Advertisement
- d) Programme
- e) Expansion of ideas

#### 6. ORAL/CONVERSATION SKILL

- a) Listening
- b) Narration
- b) Loud reading
- d) Conversation

#### 7. GRAMMAR

- a) Adjectives - formation
- b) Sandhi (swar and vyanjan)
- b) Opposite words
- d) Meanings of words
- e) Compounds  
Dwandwa - Dwigu - Madhyampadlopi-  
Bahuvrihi
- f) Figures of speech Varnanupras,  
Shabdanupras, Antyanupras  
Arthalankar — Upma  
Utpreksha Sajivaropan



**Std. X**

**1. PROSE**

About 64 pages. (One lesson for self-study)

[Essay, Extracts from autobiographies, from novel, short stories, one-act-plays, biographies, travelogues, critiques, humorous articles, satirical articles]

**2. POETRY**

About 200 lines. (One poem for self-study)

[Forms of medieval literature- pada, akhyan, chhappa, garbi, bodh kavya, folk-song, khand-kavya, sonnet, gazzal, song, apadyagadya, (blank verse) on nature] It should be small in length.

**3. RAPID READER : About 24 pages.**

**4. COMPOSITION**

- a) Essays: Descriptive, Reflective, Imaginative, Autobiographical
- b) Precis
- b) Comprehension

**5. COMMUNICATION SKILL**

- a) Letter writing
- b) Report writing
- b) Advertisement

- d) Programme
- e) Expansion of ideas

**6. ORAL/CONVERSATION SKILL**

- a) Listening
- b) Narration
- b) Loud reading
- d) Conversation

**7. GRAMMAR**

- a) Adjectives- formation
- b) Sandhi (swar and vyanjan)
- b) Opposite words
- d) Meanings of words
- e) Compounds  
Dwandwa, Dwigu, Madhyampadlopi, Bahuvrihi
- g) Figures of speech Varnanupras, Shabdanupras, Antyanupras  
**Arthalankar — Upma**  
Utpreksha  
Sajivaropan





# Kannada

(First Language)

## Introduction

Kannada, Tamil, Telugu and Malayalam are the languages spoken in Karnataka, Tamilnadu, Andhra Pradesh and Kerala are of Dravidian family. For the growth and development of the country it is necessary that the languages should be able to imbibe the multifaceted requirements of a society. In the syllabus of these languages, the Objectives cover many areas which have ethical values. These include personality development, communication skills, human rights, environmental problems, conservation of resources, etc. By introducing different languages in the state, Maharashtra State Board of Secondary and Higher Secondary Education has facilitated the immigrants to adapt the new curriculum with an ease.

The syllabus for these languages are prepared keeping in mind the syllabus for Std. I to VIII and also the curriculum followed by the concerned states.

## Objectives

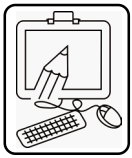
### To enable students to

1. Enrich their vocabulary.
2. Enhance their abilities in basic skills like listening, speaking, reading, writing and communication.
3. Develop life skills.
4. Develop the abilities to use the language more accurately, effectively and meaningfully.
5. Get awareness about environmental studies.
6. Update General Knowledge.

7. Understand the importance of conversation of resources, culture, heritage, health and hygiene.
8. Develop ability to narrate experiences, participate in debates and discussions, in proper language and in logical sequence.

## Std. IX

1. **Prose** : About 64 pages (Exclusive of Introduction, notes, exercise etc.) One lesson for self study.
2. **Poetry** : About 200 lines (Medieval and modern)
3. **Rapid Reading** : About 24 pages.
4. **Grammar** : Revision of the grammar items taught in the previous classes.
  - (i) Sandhi (i) Kannada Sandhi : Lopa, Agam, Adesh
  - (ii) Sanskrit Sandhi: Savarnadeergha, Guna.
- (2) Samasa : Tatpurusha, Dwigu, Dwandwa
- (3) Parts of Sentence: Karthru, Karma, Kriya.
- (4) Alankar (i) Shabdalanekar-Vrutyuanuprasa, Chekanuprasa, Yamaka
- (ii) Arthalankar- Upama  
Utpreksha  
Rupaka  
Drishtanth
- (5) Chhandassu : (a) Akshargana
- (i) Utpalamale



- (ii) Champakamale
- (iii) Sragdhare
- (b) Mathragana  
Shatpadi, Shara, Kusum, Bhoga
- (b) Amsagana  
Sangathya, Tripadi

## 6. Composition

1. **Essays** : About 250 words.
  - (a) Biography
  - (b) Autobiography
  - (b) Narrative
  - (d) Descriptive
2. **Precis Writing** : Passage around 150 words.
3. **Comprehension**: Prose passage around 150 words or Poetry 20-25 Lines with four questions
7. **Communication Skill : (written)**
  1. Letter writing: Formal and informal
  2. Preparation of invitation cards for different occasions
  3. Report writing (about function)
  8. Communication Skill (oral)

### Std. X

1. **Prose** : About 64 pages (Exclusive of Introduction, notes, exercise etc.). One lesson for self study.
2. **Poetry** : About 200 lines (Medieval and modern)
3. **Rapid Reading** : About 24 pages.
4. **Grammar** : Revision of the grammar items covered in the previous classes.
- 1) **Vakyavibhara**
  - 1) Kinds of sentences: - Simple, Compound and Complex.

- 2) Active and Passive voice and their transformation.
- 2) Tatsama, Tadbhave, Upasargayukta words.
- 3) 1) Samasas - Karmdadharaya, Amshi, Bahuvrihi.
- 2) Idioms, Proverbs and their uses.
- 4) **Prosody**
  - 1) Kanda, Shatpadi (Bhamini, Parivardhini & Vardhak only) and types Ragale.
  - 2) Akshara gana. (Mattebha, Shardul)
  - 5) Figures of Speech :  
Utpreksha, Swabhavokti, Apahnuti and Arthanaranyas.
5. **Composition**
  1. **Essays** : About 250 words.
    - (a) Biography
    - (b) Autobiography
    - (b) Narrative
    - (d) Descriptive
  2. **Precis writing** : (Passage around 150 words)
  3. **Comprehension** : (Prose passage around 150 words or Poetry 20-25 lines with four questions)
  6. **Communication Skill : (written)**
    1. **Letter writing** : Formal and Informal.
    2. Preparation of invitation cards for different occasions
    3. Report writing (about function/incidents, etc.)
  7. **Communication Skills (Oral)**





# Tamil

(First Language)

## Introduction

Kannada, Tamil, Telugu and Malayalam are the languages spoken in Karnataka, Tamilnadu, Andhra Pradesh and Kerala are of Dravidian family. For the growth and development of the country it is necessary that the languages should be able to imbibe the multifaceted requirements of a society. In the syllabus of these languages, the Objectives cover many areas which have ethical values. These include personality development, communication skills, human rights, environmental problems, conservation of resources etc. By introducing different languages in the state, Maharashtra State Board of Secondary and Higher Secondary Education has facilitated the immigrants to adapt the new curriculum with an ease.

The syllabus for these languages are prepared keeping in mind the syllabus for Std. I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to –

1. Enrich their vocabulary.
2. Enhance their abilities in basic skills like listening, speaking, reading, writing and communication.
3. Develop life skills.
4. Develop the abilities to use the language more accurately, effectively, and meaningfully.
5. Get awareness about environmental studies.
6. Update General Knowledge.

7. Understand the importance of conservation of resources, culture, heritage health and hygiene.
8. Develop ability to narrate experiences, participate in debates and discussions, in proper language and in logical sequence.

## Std. IX

1. **Prose** : About 64 pages (Exclusive of Introduction, notes, exercise etc.) One lesson for self study.
2. **Poetry** : About 200 lines (Medieval and modern)
3. **Rapid Reading** : About 24 pages.
4. **Grammar** : Revision of the grammar items taught in the previous classes.
  - (1) **Punarbhi** : Iyalbu punarbhi, vikarapunrbhi, thontral, thirithal, keduthal.
  - (2) **Sentences** : Eluvaay, Payanilai, Seyapaduporel  
Kinds of Sentence - Simple, compound, complex and Transformation of sentences.
  - (3) **Classification of words-**  
Peyar - Thinai, Pall, Enn. Idam  
Vinai - Tenses, Gender  
Idam - Its Function  
Verbs - Finite, Infinite
  - (4) **Prosody** : Eathukai, Monai
  - (5) **Figures of Speech** : Thanmai navirbhi  
Uyaruv navirbhi



## 5. **Composition**

### 1. **Essays** : About 250 words

- (a) Biography
- (b) Autobiography
- (b) Narrative
- (d) Descriptive

### 2. **Precis Writing** : Passage around 150 words.

### 3. **Comprehension** : Prose passage around 150 words or Poetry 20-25 lines with four questions

### 6. **Communication Skill : (written)**

- 1. Letter writing: Formal and informal
- 2. Preparation of invitation cards for different occasions
- 3. Report writing (about function)
- 7. Communication Skill (oral)

## Std. X

### 1. **Prose** : About 64 pages (Exclusive of Introduction, notes, exercise etc.). one lesson for self study.

### 2. **Poetry** : About 200 lines (Medieval and modern)

### 3. **Rapid Reading** : About 24 pages.

### 4. **Grammar** : Revision of the previous classes portion.

### (1) **Agupeyar**, and its kinds, Eight Vetrumaikel.

### (2) **Sentences** : Thanvinai, Piravinai, Seyvinai, Sayapatuvina

### (3) **Idioms, Proverbs and their usage.**

### (4) **Tenses and Gender**

### (5) **Figures of Speech** - Vuvamai, Vuvakam.

Note : (From among items Prosody) The Figures of Speech only those occurring in the Prescribed text book should be taught.

## 5. **Composition**

### 1. **Essay** : About 250 words.

- (a) Biography
- (b) Autobiography
- (b) Narrative
- (d) Descriptive

### 2. **Precis Writing** : (Passage around 150 words)

### 3. **Comprehension** : (Prose passage around 150 words or Poetry 20-25 lines with four questions)

### 6. **Communication Skill : (written)**

- 1. Letter writing : Formal and Informal.
- 2. Preparation of invitation cards for different occasions
- 3. Report writing (about function/incidents, etc.)
- 7. Communication Skills (Oral)







# Telugu

(First Language)

## Introduction

Kannada, Tamil, Telugu and Malayalam are the languages spoken in Karnataka, Tamilnadu, Andhra Pradesh and Kerala are of Dravidian family. For the growth and development of the country it is necessary that the languages should be able to imbibe the multifaceted requirements of a society. In the syllabus of these languages, the Objectives cover many areas which have ethical values. These include personality development, communication skills, human rights, environmental problems, conservation of resources etc. By introducing different languages in the state, Maharashtra State Board of Secondary and Higher Secondary Education has facilitated the immigrants to adapt the new curriculum with an ease.

The syllabus for these languages are prepared keeping in mind the syllabus for Std I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to

1. Enrich their vocabulary.
2. Enhance their abilities in basic skills like listening, speaking, reading, writing and communication.
3. Develop life skills.
4. Develop the abilities to use the language more accurately, effectively, and meaningfully.
5. Get awareness about environmental studies.
6. Update General Knowledge.

7. Understand the importance of conservation of resources, culture, heritage health and hygiene.
8. Develop ability to narrate experiences, participate in debates and discussions, in proper language and in logical sequence.

## Std IX

1. **Prose** : About 64 pages (Exclusive of Introduction, notes, exercise, etc.) One lesson for self study.
2. **Poetry** : About 200 lines (Medieval and modern)
3. **Rapid Reading** : About 24 pages.
4. **Grammar** : Revision of the grammar items covered in the previous classes.

## 1. Sandhi

- (i) **Telugu sandhi** : Dhrutha, Thrika, Yadagama
- (ii) **Sanskrit sandhi** : Yanadesa, Vruddhi

2. **Samasamulu** - Nangtatpurusha, sambhavana Purvapada, Dwandwa
3. **Kartharthaka, Karmanyarthaka vaakyamulu**

## 4. Alankaramulu :

- (i) Shabada Chekanuprasa, Mukta pada grastha.
- (ii) Artha Utpreksha, Swabhavokthi, Vyajasthuthi

5. **Chandassu** : Yathi maitri, prasa niyamamu.





i) Vruthamulu - shardhulamu, Mathabhamu

ii) Jathulu - kandamu, Dwipada

5. **Composition**

1. **Essays** : About 250 words.

(a) Biography

(b) Autobiography

(b) Narrative

(d) Descriptive

2. **Precis writing** : Passage around 150 words.

3. **Comprehension** : Prose passage around 150 words or Poetry 20-25 lines with four questions

6. **Communication Skill : (written)**

1. Letter writing : Formal and informal

2. Preparation of invitation cards for different occasions

3. Report writing (about function)

7. Communication Skill (oral)

**Std. X**

1. **Prose** : About 64 pages (Exclusive of Introduction, notes, exercise etc. ) one lesson for self study.

2. **Poetry** : About 200 lines (Medieval and modern)

3. **Rapid Reading** : About 24 pages

4. **Grammar** : Revision of the grammar taught in the previous classes.

1) **Basha Bhagamulu -**

Nama vabhakamu, Sarvanamamu, Kriya, Visheshanamu, Avyayamu.

2) **Sandhi** : Telugu : Aamreditha, Prathadula, Gasadadavadeesa.

3) **Samasamulu** : Rupaka, Bahrivrihi, Avayayeebhava

4) **Alankaramu** : (a) Shabda - latanuprasa, Anthyaprasa

(b) **Artha** - Rupaka, Athishayokti, Artantaranyas.

5) **Chandassu** : Matragana Chandasu

**Upajaltulu** : Aataveladi, Tetageeti, Seesamu.

5. **Composition**

1. Essay : About 250 words

(a) Biography

(b) Autobiography

(b) Narrative

(d) Descriptive

2. **Precis writing** : (Passage around 150 words)

3. **Comprehension** : (Prose passage around 150 words or Poetry 20-25 lines with four questions)

6. **Communication Skill : (written)**

1. Letter writing : Formal and Informal

2. Preparation of invitation cards for different occasions

3. Report writing (about function/incidents, etc.)

7. **Communication Skills (Oral)**



# Malayalam

(First Language)

## Introduction

Kannada, Tamil, Telugu and Malayalam are the languages spoken in Karnataka, Tamilnadu, Andhra Pradesh and Kerala are of Dravidian family. For the growth and development of the country it is necessary that the languages should be able to imbibe the multifaceted requirements of a society. In the syllabus of these languages, the Objectives cover many areas which have ethical values. These include personality development, communication skills, human rights, environmental problems, conservation of resources etc. By introducing different languages in the state, Maharashtra State Board of Secondary and Higher Secondary Education has facilitated the immigrants to adapt the new curriculum with an ease.

The syllabus for these languages are prepared keeping in mind the syllabus for Std. I to VIII and also the curriculum followed by the concerned states.

## Objectives

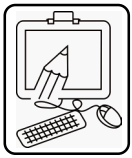
To enable students to

1. Enrich their vocabulary.
2. Enhance their abilities in basic skills like listening, speaking, reading, writing and communication.
3. Develop life skills.
4. Develop the abilities to use the language more accurately, effectively, and meaningfully.
5. Get awareness about environmental studies.
6. Update General Knowledge.

7. Understand the importance of conservation of resources, culture, heritage health and hygiene.
8. Develop ability to narrate experiences, participate in debates and discussions, in proper language and in logical sequence.

## Std IX

1. **Prose** : About 64 pages (Exclusive of Introduction, notes, exercise, etc.). One lesson for self study.
2. **Poetry** : About 200 lines (Medieval and modern)
3. **Rapid Reading** : About 24 pages
4. **Grammar** : Revision of the grammar items taught in the previous classes.
  1. Sandhi (i) Agama, (ii) Adesa, (iii) Lopa, (iv) Dwithwa
  2. Samasam (i) Dwandwa, (ii) Bahuvreehi
  3. Karthari prayogam
  4. Alankaram :
    - (a) Shabdalanakaram :
    - (i) Adiprasam
    - (ii) Dwiheeyaksharaprasam
    - (b) Arthalankaram :
      - (i) Athishayokthi (ii) Upama
  5. Vruththam : Keka, kakali,
5. **Composition**
  1. Essay : About 250 words
    - (a) Biography
    - (b) Autobiography



(b) Narrative

(d) Descriptive

2. **Precise writing** : Passage around 150 words.
3. **Comprehension** : Prose passage around 150 words or Poetry 20-25 lines with four questions
6. **Communication Skill** : (written)
  1. **Letter writing** : Formal and informal
  2. Preparation of invitation cards for different occasions
  3. **Report writing** (about function)
7. **Communication Skill (oral)**

**Std. X**

1. **Prose** : About 64 pages (Exclusive of Introduction, notes, exercise etc.). one lesson for self study.
2. **Poetry** : About 200 lines (Medieval and modern)
3. **Rapid Reading** : About 24 pages
4. **Grammar** : Revision of the grammar covered in the previous classes.
1. **Sandhi (i) Agama Sandhi**
  - (ii) Lopa Sandhi
  - (iii) Dwithva Sandhi
  - (vi) Aadesha Sandhi.
2. **Samasam (i) Tatpurusha Samasam**
  - (ii) Avyaeabhava Samasam
  - (iii) Karmadharanya Samasam

3. **Alankaram** : 1. Shabdalankaram

(a) Athiprasam

(b) Dwithheeyakshara Prasam

(b) Anthyaprasam

2. **Arthalaakaram**

(a) Athishayokthi

(b) Samyokthi.

4. **Vruththam** : Keka, kakali and Manjari

5. **Composition**

1. Essay : About 250 words.

(a) Biography

(b) Autobiography

(b) Narrative

(d) Descriptive

2. **Precise writing** : (Passage around 150 words)

3. **Comprehension** : (Prose passage around 150 words or Poetry 20-25 lines with four questions)

6. **Communication Skill** : (written)

1. Letter writing: Formal and Informal.

2. Preparation of invitation cards for different occasions

3. Report writing (about function/incidents, etc. )

7. **Communication Skills (Oral)**





# Sindhi

(First Language)

## Introduction

Sindhi is rich in its literature. It is the descendent of Indo Aryan family of languages. In its own state the language is taught and learnt. However, it always happens that people from other states come to Maharashtra for their own reason, like industrial development, transfer in services, in search of job etc. In such situations they have to learn the state language in order to mix with the people. At the same time they are eager to keep alive their own mother tongue/language in order to mix with people. Maharashtra State Board of Education is very enthusiastic to offer this facility to learn mother-tongue, for students of Bengali, Punjabi and Sindhi.

Lakhs of Bengalis, Punjabis and Sindhis in Maharashtra are scattered, throughout the state, and Maharashtra State Board is kind and eager to keep these minor languages (in Maharashtra) alive. Any migrated service man, wishing to keep a child in touch with mother-tongue should be able to do so. As a first language, the study is comparatively deep as in the case of Bengali and Sindhi and thus, minor language speakers are also able to express themselves in their mother-tongues. And it has been possible due to the eagerness and enthusiasm of Maharashtra State Board of Education. An effort is made to develop the syllabus keeping this as in background.

## Objectives

To enable the student

1. to be able to utter the language correctly e.g. pronunciation, conversation and various basic concepts of grammar.
2. to create interest among students to various radio programmes and watch different T.V. programmes, etc.
3. to celebrate particular days, relevant to Specific language i.e. Sindhi, Punjabi, Bengali every year, with elocution, poetry recitation, story telling, essay writing and group discussion etc.
4. to develop among the student, the feeling of love and respect for the nation, unity and national harmony, scientific vision, work culture, equality, enterprise education and basic values of life etc.

### Std IX / X

1. **Prose** : A Textbook about 64 pages
2. **Poetry** : about 200 lines (classical and present age poetry)
3. **Rapid Reading** : About 24 pages
4. **Composition**
  - a. Essay of about 300 words
  - b. Precis writing
  - c. Comprehension



## 5. Communication Skill

### Written

- a. Letter Writing
- b. Report Writing

## 6. Oral/Conversation Skill

**Std. IX**

### 1. (Grammar)

- a. Tenses Simple & Compound
- b. Indeclinables
- b. Change of gender
- d. Word derivation
- e. Analysis of Sentences
- f. Transformation of sentences
- g. Idioms, Proverbs, Phrases as arising out of text

h. Figures of speech

i. Punctuation

**Std. X**

**Grammar**

- (a) Compound Verbs
- (b) Synonyms/Antonyms
- (c) Upasarga
- (d) Idioms, Proverbs, Phrases as arising out of texts
- (e) Figures of speech





# Bengali

(First Language)

## Introduction

Bengali is rich in its literature. It is the decedent of Indo Aryan family of languages. In its own state the language is taught and learnt. However, it always happens that people from other states come to Maharashtra for their own reason, like industrial development, transfer in services, in search of job etc. In such situations they have to learn the state language in order to mix with the people. At the same time they are eager to keep alive their own mother tongue/language in order to mix with people. Maharashtra State Board of Edubations is very enthusiastic to offer this facility to learn mother-tongue, for students of Bengali, Punjabi and Bengali.

Lakhs of Bengalis, Punjabies and Sindhies in Maharashtra are scattered, throughout the state, and Maharashtra State Board is kind and eager to keep these minor languages (in Maharashtra) alive. Any migrated servicemen, wishing to keep a child in touch with mother-tongue should be able to do so. As a first language, the study is comparatively deep as in the base of Bengali and Sindhi and thus, minor language speakers are also able to express themselves in their mother-tongues. And it has been possible due to the eagerness and enthusiasm of Maharashtra State Board of Education. An effort is made to develop the syllabus keeping this as in background.

## Objective

1. Students should be able to utter the language correctly e.g. pronunciation, conversation and various basic concepts of grammar.

2. to encourage the students to read regularly the daily newspapers, periodicals and journals etc.
3. to create interest among students to various radio programmes and watch different T.V.programmes etc.
4. to celebrate particular days, relevant to Specific language i.e. Sindhi, Punjabi, Bengali every year, with elocution. Poetry recitation, story telling essay writing and Group discussion etc.
5. to develop among the students, the feeling of love and respect for love of nation, unity and national harmony, scientific vision, work culture, equality, enterprose education, the basic values of life etc.
  - a. Prose - A text book about 60 pages.
  - b. Poetry-about 200 lines (Classical and present age poetry)
  - C. Rapid reading – about 20 pages

## Composition

- a. Essay of about 260 words
- b. Precis writing
- C. Comprehension

## Communication Skill (written)

- a. letter writing
- b. Report writing

## Oral/Conversational Skill

Std. IX

**Text Book – Path Sankalan, New Edition, January - 2005**

**Published by – the west Bengal Board of Secondary Education**



**1. Prose – 80 pages**

1. Sabhya 'O' Ashabhya
2. Sagar – Samgame-Navakumar
3. Ghar 'O' Bahir
4. Balai
5. Chhinna Patra
6. Padma – Nadir – Majhi

**2. Poetry**

1. Paper Bhagi
2. Annapurna 'O' Ishari Patani
3. Cheler Dal
4. Pather Disha
5. Kabar
6. Kashte

**3. Rapid Reading**

1. Bhagirathir-Utsa-Sandhane
2. Mahesh

**4. Grammar**

1. Bipari tarthak shabda
2. Pad parivartan
3. Sandhi Bibhbed
4. A Lankarer Udaharan
5. Ek Kathay Prakash
6. Bakyarabhona
7. Samas

**5. Composition**

1. Descriptive and narrative essays
2. Comprehension (Unseen Passage)
3. Bhab Samprasaran

**6. Letter Writing**

1. Business
2. Personal
3. Official

**7. Compositoin should be of about 260 words**

**8. Unseen passage/précis writing/summary**

**9. Bhab samprasaran**

**10. Rebommended Books on Bengali grammar -**

- a. Adhunik bangla Vyakaran by Jagadish Chandra ghosh
  - b. Bhasha prakash bangla Vyakaran by Dr. Suniti K.Chattarjee
  - c. Bangla Vyakaran by Sukumar Sen
  - d. Madhyamik Bangla Vyakaran by Dr. Rabin Gupta
  - e. Best collection on Bengali Grammar by Mr. M. S. Mallick Sir
- (Rajiv Gandhi Jr.College, Bengali Camp, Chandrapur)

**Note :** Above all grammar and text book are available at-

1. M/s 'Debashree Book Depot' Bengali Camp, c/o Mr. M.S.Mallibk Sir (Rajiv Gandhi Jr.College, Bengali Camp, Chandrapur – 442401 Ph. 07172 – 261925 Cell Phone – 9422837698 / 9021581944

Any Book Depot, College Street, Kolkata, West Bengal, India (2005 to 2014 next 10 years)

**Std. X**

**Composition**

- a. Essay of about 260 words
- b. Précis writing
- b. Comprehension

**Communication Skill : (written)**

- a. letter writing
- b. Report writing

**Oral/Conversational Skill**





**Std. X**

**Text Book – Path Sankalan, New Edition,  
January – 2005**

**Published by – The west Bengal Board  
of Secondary Education**

**1. Prose - 80 pages**

1. Vidya Sagar
2. Palli Samaj
3. Palli Sahitya
4. Agnidever Sajjya
5. Paribesh Dushan
6. Harun Salemer Mashi

**2. Poetry**

1. Dui Bigha Jami
2. Chhatra-Dhara
3. Banglar Mukh Ami Dekhebhi
4. Kandari Hushiyar
5. Ulanga Raja
6. Janam Dukhinir ghar

**3. Rapid Reading (about twenty pages)**

1. Nona jal
2. Chheda Tar

**4. Grammar**

1. Bipari tarthak shabda
2. Pad parivartan
3. Sandhi Bibhhed
4. Alankarer Udaharan
5. Bakya Sankobhan
6. Samas
7. Bakya Rabhona

**5. Composition (about 260 words)**

1. Descriptive and narrative essays

**2. Comprehension (Unseen Passage)**

**3. Bhab Samprasaran**

**6. Letter Writing**

1. Business
2. Personal
3. Official

**7. Composition should be of about 260 words**

**8. Unseen passage / precis / summary**

**9. Translation English to Bengali**

**Recommended Books on Bengali Grammar -**

1. Adhunik bangla Vyakaran by Jagadish Chandra ghosh.
2. Bhasha prakash bangla Vyakaran by Dr. Suniti K. Chattarjee.
3. Bangla Vyakaran - by Sukumar Sen.
4. Madhyamik Bangla Vyakaran by Dr. Rabin Gupta
5. Best collection on Bangla Vyakaran and Composition - by Mr. M. S. Mallick Sir, (BOS) (Rajiv Gandhi Jr. College, Bengali Camp, Chandrapur)

**Note – Above all grammar and text book are available at-**

1. M/s 'Debashree Book Depot' Bengali Camp  
C/o Mr. M. S. Mallick Sir (Rajiv Gandhi Jr. College, Bengali Camp, Chandrapur – 442401  
Ph. 07172 – 261925  
Cell Phone – 9422837698 / 9021581944
2. Any Book Depot, College Street, Kolkata, West Bengal, India







# Punjabi

(First Language)

## Introduction

Punjabi is the outstanding language of Punjab, which finds its place in the schedule of regional Languages of our constitution by enacting language Act 1967. Punjabi Language had been given the status of State Official Language of Punjab. It is the descendant of Indo-Aryan family of languages. Punjabi people have spread all over the world. Therefore, like English, Punjabi has moved around the world and developed local forms by integrating local vocabulary.

In their own state this language taught and learnt. However, it always happens that people from other states migrate for various reasons like industrial development, transfer in service, search of job etc. In such situations, they have to learn the state language in order to communicate with the people. At the same time they are keen on keeping in touch with their mother tongue and the parents want their children to learn the same.

The Maharashtra State Board of Secondary and Higher Secondary Education have provided the necessary facilities to learn such languages.

The syllabus of Punjabi First, Second and Composite courses are presented in continuation of the syllabus of Secondary level in order to scope with the higher studies of these languages.

The curriculum for the subject of Punjabi Std. IX and Std. X has been prepared bearing in mind the curriculum of Punjabi for the Classes I to X in Maharashtra, current thinking in curriculum implementation and the views/opinions expressed by teachers,

parents and other.

## Objectives

### A. General Objectives

To enable the students to

1. Acquire the ability to speak the language properly through correct pronunciation, intonation etc.
2. Develop the ability to comprehend the language effectively.
3. Encourage to read newspapers, periodicals and journals in the language in order to develop reporting skill and other skills.
4. Develop interest in the language.
5. Develop interest in the language and in-culture self-study habits.
6. Create interest among students to read regularly the daily newspapers, periodicals etc.
7. Be able to use various semantic variations in the use of various words, phrases and idioms in varying circumstances.
8. Develop the skill of translating in Punjabi from other languages without disturbing the original theme or ruining the literary flavour.

### B. Specific Objectives

#### 1. Listening Skill

To enable the students to

- a) enjoy and appreciate the rhythmic beauty of poems read out by the teacher in the class.
- b) apply listening skill to other activities



like discussion, debates, reading and writing.

## 2. Speaking Skill

To enable the students to

- Enjoy reciting poems with proper accent, rhythm and intonation.
- Speak in syntactically acceptable forms/patterns.
- Make oral presentation on a given topic for a reasonable span of time in an ordered manner.

## 3. Reading Skill

To enable the students to

- Improve the speed of reading.
- Read in order to find the intention and attitude of the writer.
- Read a loud and appreciate the rhythm of poem.
- Understand and appreciate features of Literary Style.

## 4. Writing Skill

To enable the students to:

- Acquire the mechanics' of writing including handwriting, the use of Punctuation marks, capital letters and correct spellings.
- Write correctly and neatly using appropriate vocabulary and grammar.
- Make notes based on the given text leading to summarizing.

## 5. Vocabulary

Development of vocabulary has its importance in language learning. Learners need to be helped in the consolidation and the extension of their vocabulary. Learners need to be learning how to use words in an effective way. The course books and other

materials will offer necessary guidance in this regard.

## 6. Grammar

Grammar has an important role to play in teaching and learning of Punjabi. However, our focus should not be much on the rules of grammar but on the use of grammar. The knowledge of grammar should lead to an effective application of the skills of listening, speaking, reading and writing. Therefore, the focus has to be on the functional aspects of grammar and not on the formal ones.

### Std. IX

**Text Book No. 1. Sahit Mala (New Edition-2004)**

**Text Book No. 2. Vangi**

**Published by :-** Punjab Sbhool Education Board, Sahibzada Ajit Singh Nagar, Mohali, Punjab.

### Portion to be Studied

#### a) Prose : about 80 pages

Literary and non literary (informative) texts/passages (excluding notes, tasks, illustrations, etc)

#### 1. Poetry : About 200-250 lines.

#### 2. For non-detailed study : A selection of literary and non-literary texts (longer prose) about 40 pages.

#### 3. Grammar :

- Tense
- Number, gender, opposite words
- Verb and adverb
- Noun, Adjective
- Formation of sentences
- Conjunction
- Punctuation
- Idioms, proverbs and phrases



9. Active, passive

10. Suffix, Prefix

**4. Compositions : About 250-300 words**

1. Descriptive and narrative essay

2. Biographies

3. Expansion of ideas

4. Comprehensions

**5. Letter Writing**

1. Business Letters

2. Social Letters

3. Official Letters

**6. Unseen Passage / Summary / Precis writing / Dialogue.**

**7. Translation English into Punjabi.**

**Std. X**

**(A) Text Book No. 1. Sahit Mala (Prose)**

**Published by :** Punjab School Education Board, Sahibzada Ajit Singh Nagar, Mohali, Punjab.

**Portion to be studied**

1. Hasana-te-Kookna

2. Baba Ram Singh Kuka

3. Bece

4. Maha Kavi Kalidas

5. Mere-Vade-Vadare

**(B) Text Book No. 2. VANGI (Poetry)**

**Published by:- Punjab School Education Board.**

**Portion to be studied**

1. Rub Te Ruttan

2. Dheeru

3. Ik Paer Ghat Turna

4. Nikki Booti da Suit

5. Baki-Sab-Sukh-Sand-Hai

**Poets and Poetry to be Studied**

I. Guru Nank Devji **A)** Harni-Hovan-Van-Vasan

**B)** Gagan-Mae-Thal

II. Guru Arjun devji **A)** Tu Hai Mera Pita

Tu Hai Mera Mata

**B)** Tum Data Thakur Prit palak

III. Bhai Gurdas Ji **A)** Sat Gur Nanak Pargatya

**B)** Dhru Hasda Ghar Aaya

**C)** Aap Bhala Sab Jag Bhala

IV. Sheikh Farid **A)** Samey-di-Sumbhal

**B)** Shalok

V. Buley Shah **A)** Meri Bukal De Vibh Chor

VI. Waris Shah **A)** Kise Da Arambh

**B)** Hir Da Sidak

VII. Kadar Jar **A)** Kissa Puran Bhagat

VIII. Guru Gibind Singh Ji

**A)** Chandi-di-Var

IX. Shah Mohammad

**A)** Jangnama Singha Te Farangian

X. Bhai Vir Singh **A)** Kutub-di-Lath

XI. Prof. Puran Singh **A)** Hal Bahun Wale

XII. SS Charan Singh Shahid

**A)** Des-Pyar

XIII. Prof. Mohan Singh

**A)** Ek-Piala-Pani

XIV. Bawa Balwant



A) Aaj Bari Ronak See

XV. Pritam Singh Safir

A) Do Pipal De Patte

XVI. Amrita Pritam

A) Asan Jawana

**(C) Text Bkko No. 3. Poh-Phutan  
Ton Pehlan (One Act Play)**

**Published by:-** Punjab School  
Education Board

**Portion to be studied**

1. Mahatma
2. Be-Basi

**(D) Rapid Reading:- about 20 pages**

**(E) Compositions:- (Each of 250 to 300 words)**

1. My favourite poet - Guru Gobind Singh Ji.
2. Cinema its merits and demerits.
3. An accident
4. Patriotism
5. A visit to a hill-station
6. Shaheed Bhagat Singh.
7. An autobiography of an old umbrella.
8. My favourite game.
9. Diwali.

**(F) Story-writing on given outlines**

1. The sea and the dove.
2. A foolish donkey.
3. The graphs are sour.
4. The cap seller and the monkeys.
5. The fox and the brow.

**(G) Letters**

1. An application to the Principal of the

School for free concession.

2. An application for a leave to attend marriage party.
3. Letter to uncle inviting him to your birthday party.
4. Letter to your friend, sympathizing with him on the death of his/her mother.
5. A complaint to the police inspector about the theft of your cycle.

**(H) Dialogue**

1. Between two friends.
2. Between the Principal and a teacher.
3. Between a Bank manager and a customer.
4. Between a master and a servant.
5. Between a Bus-conductor and a passenger.

**(I) Grammar- Revision of the portion studied in the Std. IX**

1. Tense
2. Number, gender, opposite words
3. Verbs and adverbs
4. Noun and Adjective
5. Formation of sentences
6. Conjunction
7. Punctuation
8. Idioms, proverbs and phrases
9. Active- passive
10. Suffix, Prefix





# English

(First Language)

## Introduction

This curriculum framework for the subject of English (First Language) at Std. IX and X has been prepared bearing in mind the National Curriculum Framework and the State Curriculum Framework, the curriculums of the CBSE, the ISCE and different State Boards and opinions expressed by teachers on the existing curriculum framework.

In view of the developments in the field of Information and Communication Technology, the Board recommends increasing use of technology for effective implementation of the curriculum of English. The new curriculum underscores the need of making education learner centered and of adopting the constructivist model of education. The learner, therefore, is expected to discover and construct his/her learning.

## General Objectives

The course of English (First Language) at Std. IX and X has been prepared considering the fact that the students have studied English from Class I to Class VIII. Further, they have also studied other school subjects through the medium of English. The dual exposure to English language that the students have received has been taken into consideration while designing this course.

To enable the student to

1. develop his/her language skills to a fair degree of proficiency.
2. acquire communication skills in English useful for higher education and also for real life situations, such as social interaction, vocations and entrepreneurship development.
3. enrich his / her vocabulary.
4. use English in appropriate grammatical forms.
5. use dictionaries, encyclopedias and such other reference materials.
6. develop the ability to use English for the development of personality and for the building of character.
7. cultivate a broad human and cultural outlook.
8. develop interest in and appreciation of Literature.
9. to facilitate self learning to enable them to become independent learners.

## Specific Objectives

### Listening Skill

To enable the student to

1. enjoy and appreciate the rhythmic beauty of various types of poems read out by the teacher in the class.



2. guess meanings of new words and phrases used in different contexts.
3. get a global understanding of a variety of passages of a reasonable length read out/recorded.
4. follow and appreciate narrative, descriptive and such other prose texts read aloud so as to answer the questions set on them.
5. listen to speeches or passages for the purpose of taking notes and giving a gist or a short summary.
6. understand read out or recorded stories, narrations, descriptions, pieces of information of a reasonable length so as to ask pertinent questions on them.
7. identify relevant/irrelevant points; facts and opinions in the speeches or the passages read out.
8. infer a speaker's attitude/intention/mood from his/her choice of words and grasp the message given.
9. predict what is coming next in a speech, story, conversation; etc. using the clues from what he/she has heard.
10. enjoy and appreciate various literary forms to get sensitized to literary language and experiences.
11. identify the genre and register of a text after listening to it.
12. listen with comprehension to talks, conversations and interviews.
13. listen with comprehension to news, commentaries, speeches and such other programmes on Radio/T.V./Tapes/CDs and multimedia.
14. understand nuances conveyed through stress and intonation.
15. exploit listening for other activities like debating, discussing, reading, writing, role-playing, problem solving and decision making.
16. listen between the words. (to know what is really meant by speakers who do not always spell out what they mean)

### **Speaking Skill**

To enable the student to

1. enjoy reciting poems with proper accent, rhythm and intonation.
2. speak with acceptable pronunciation and appropriate stress and intonation.
3. use a variety of words and phrases in different contexts appropriately.
4. give a gist of a passage of a reasonable length read out in the class.
5. answer orally questions based on Specific information or details in a passage read out in the class or read by the student himself/herself.
6. express ideas and feelings correctly, clearly and coherently.



7. ask pertinent questions on stories, narrations, descriptions, pieces of information of a reasonable length.
8. differentiate between relevant and irrelevant points.
9. present short oral reports on news, commentaries, speeches and such other programmes on Radio, T.V., Tapes, C.D.s, etc.
10. present orally in brief his/her interpretation of a speaker's or writer's mood, attitude and intention.
11. participate in discussions, debates, interviews, conversations.
12. narrate stories, anecdotes, jokes, incidents, experiences.
13. comment on writer's idea and point of view.
14. give an extempore speech (unprepared oral presentation) on a familiar topic in precise words.
15. use a range of conversational styles from formal to informal.
16. use the language for the development of personality, building of character and participation in social life.
2. read silently with a fair speed of comprehension depending on the kind of text.
3. read for pleasure short stories, extracts from biography, travelogue, plays, etc.
4. read for information newspapers, advertisements, notices, leaflets, etc.
5. understand the overall message, coherence, implied meanings and development of thoughts using different techniques of reading such as skimming, scanning and close reading.
6. read intensively so as to develop good study habits.
7. read extensively for pleasure and information and to get acquainted with the works of great writers and poets.
8. identify and understand figures of speech and other literary devices used in prose and poetry.
9. use clues from discourse markers (such as however, moreover, on the other hand, etc. - in order to predict what could follow)
10. anticipate and predict events, consequences, etc. while reading.
11. identify logical relationship in a given text.
12. differentiate between relevant and irrelevant information, fact and opinion.

### Reading Skill

To enable the student to

1. read aloud a poem to enjoy and appreciate rhythm and other features.





13. transfer information from verbal to diagrammatic form and vice-versa.
14. develop reference skills (i.e. using a dictionary, encyclopedia, etc.) for detailed as well as additional understanding.
15. understand and appreciate features of literary style.
16. enjoy and appreciate the language and its literature to develop sensitivity.

### **Writing Skill**

To enable the student to

1. write correctly, neatly and legibly with reasonable speed.
2. master the mechanics of writing including planning, organizing, composing and revising.
3. write answers to questions based on prescribed or unseen text in prose and poetry and to explain figures of speech and other literary devices.
4. convey information through writings such as instructions, posters, leaflets, messages and advertisements.
5. write formal and informal letters.
6. describe/narrate events, objects and processes coherently.
7. complete a story beginning with the

given opening statements.

8. write expository/argumentative essays of 200-250 words.
9. develop a dialogue on different situations such as at the Principal's office, Enquiry counter at the Railway station/S.T. stand, etc.
10. write reports on conversation, interviews, and radio talks.
11. make notes on seen texts leading to summarizing.
12. write minutes, notices, curriculum vitae.
13. transfer information from verbal to diagrammatic form and viceversa.
14. write articles for school magazines, journals, etc.

### **Vocabulary**

1. Consolidation and extension of vocabulary learnt in the previous classes (upto Std. VIII/IX)
2. Acquisition of vocabulary arising out of the prescribed texts.

### **Grammar**

The grammar items listed below have to be taught and learned only with reference to appropriate contexts. Grammar should not be taught in isolation. It is not an end in itself but a means of learning to use a language.







## Std. IX

<b>a)</b>	<b>A Coursebook in English (Kumarbharati)</b>	
<b>1)</b>	<b><u>Detailed Study</u></b>	
	<b>a) Prose :</b>	About 64 pages of literary and non-literary (informative) text (excluding notes, illustrations, tasks, etc.)
	<b>b) Poetry :</b>	About 250 lines. Non-detailed study : A selection of literary texts (short stories, one
<b>b)</b>	<b>Grammar</b>	
<b>Sr. No.</b>	<b>Items</b>	<b>Specification</b>
1	Revision of grammatical items studied up to Std VIII.	_____
2	different kinds of sentences	Assertive/Exclamatory/Imperative/Negative/Interrogativ
3	The Tenses	a) i) Simple present ii) Present Continuous, iii) Simple past iv) Past Continuous b) Sequence of tenses
4	Articles	a, an. the
5	prepositions	different uses
6	Tenses of perception	Uses of 'see', 'hear', 'smell', 'feel', 'taste'
7	Concord	Subject +Verb agreement
8	Word Formation	Nouns/Adjectives/Verbs/Adverbs
9	Voice	Statements, questions, negatives, indirect object
10	Question formation	a) Yes/No question b) 'Wh'+ question
11	Reported Speech	Statements, questions, commands, requests,
12	Punctuation	Usage
13	Non-finites	Infinitives, Gerunds, Participles
14	Modal Auxiliaries	Uses of 'will', 'shall'
15	Collocation	The co-occurrence of lexical items



**Std. X**

<b>a)</b>	<b>A Coursebook in English (Kumarbharati)</b>	
<b>1)</b>	<b>Detailed Study</b>	
	<b>a) Prose :</b>	About 64 pages of literary and non-literary (informative) text (excluding notes, illustrations, tasks, etc.)
	<b>b) Poetry :</b>	About 250 lines. Non-detailed study : A selection of literary texts (short stories, one act play)
<b>b)</b>	<b>Grammar :</b>	
<b>Sr. No.</b>	<b>Items</b>	<b>Specification</b>
1	Revision of grammatical items studied up to Std VIII.	_____
2	different kinds of sentences	Simple, Compound, Complex
3	different kinds of	Principal, Co-ordinate, Sub-ordinate
4	The Tenses	<b>a) Continuous</b> i) Present Perfect ii) Present Perfect iii) Past Perfect iv) Future with will/shall and 'going to' <b>b) Continuous</b> Sequence of Tenses.
4	Articles	a, an, the (advanced level)
5	prepositions	different uses
8	Word Formation	Nouns/Adjectives/Verbs/Adverbs
9	Voice	Statements, questions, negatives, indirect object
10	Question formation	Tag questions
11	Reported Speech	Statements, questions, commands, requests, exclamation
12	Punctuation	Usage
13	Non-finites	Infinitives, Gerunds, Participles
14	Modal Auxiliaries	Uses of 'can', 'may', 'might', etc
15	Conditionals	Unreal conditions in the present/past Possible conditions in the future



**Weightage to be given at Std. IX and X**

**The following weightage is to be given to the various aspects of the syllabus.**

1	Reading Skill (Textual and non-textual)	40%
2	Grammar	15%
3	Writing skill	25%
4	Oral test	20%





## Second Language



# हिंदी

(द्वितीय भाषा)

महाराष्ट्र शासन द्वारा स्वीकृत नवीन पाठ्यक्रम तथा उनके उद्देश्यों को मुद्दे नजर रखते हुए राष्ट्रीय एकता की भावना को दृढ़ करने हेतु नौवीं तथा दसवीं हिंदी-द्वितीय भाषा का पाठ्यक्रम तैयार किया गया है। इसमें अहिंदी भाषी छात्रों की आयु, रुचि तथा आकलनशक्ति का विचार किया गया है।

इस स्तर के छात्रों को हिंदी भाषा तथा हिंदी साहित्य से परिचित कराने की दृष्टि से पाठ्यक्रम में प्रयोगशीलता का समावेश किया गया है।

### उद्देश्य

- छात्रों में अपनी मातृभाषा के साथ-साथ हिंदी के प्रति रुचि निर्माण करना।
- हिंदी के मानक उच्चारण, लेखन तथा संवाद कौशल में वृद्धि करना। भाषा के व्याकरण एवं संरचना का परिचय देना।
- छात्रों में पाठ्यपुस्तकेतर साहित्य के प्रति रुचि जगाना।
- समाचार पत्र, पत्र-पत्रिकाएँ, दूरदर्शन आदि में प्रयुक्त हिंदी प्रयोगों का परिचय देना।
- अनुदित साहित्य एवं अहिंदी भाषिक लेखकों की हिंदी कृतियों को समाविष्ट करके राष्ट्रीय एकता का बोध जगाना।
- साहित्य का रसास्वादन करने की क्षमता का विकास करना। छात्रों में कलाबोध जगाना।
- साहित्य के माध्यम से शाश्वत मूल्यों के ज्ञान के संस्कार करना।
- सरकारी स्तर पर प्रयुक्त हिंदी से परिचित कराना।

### कक्षा ९ वीं

१. गद्य : सूक्ष्म अध्ययन : ५० पृष्ठ (लगभग)

प्रस्तावना, टिप्पणी आदि को छोड़कर.....

सूक्ष्म अध्ययन १२ गद्य पाठ

### विधाएँ :

कहानी	४ (नारीकेंद्रित - १)
निबंध लगभग	४
एकांकी	१
विज्ञान/पर्यावरण	१
यात्रावर्णन	१
हास्यव्यंग्य	१

१२

२. पद्य - १०० पद्य पंक्तियाँ (लगभग),  
प्राचीन मध्यकालीन, छायावादी, नई  
कविता, समकालीन

### आधुनिक

(इनमें प्रकृतिपरक : २ कविताएँ अपेक्षित)

३. स्थूलवाचन : विविधा २० पृष्ठ (लगभग)

### ४. व्याकरण

मुँहावरें, अव्यय, कालपरिवर्तन, वाक्य शुद्धिकरण

### ५. रचनाविभाग

निबंध	- विचारात्मक, वर्णनात्मक, आत्मकथात्मक।
कहानी	- रूपरेखा के आधार पर; आकलन एवं सार लेखन अथवा पूछे गए प्रश्नों के उत्तर लिखना।
प्रयोजनमूलक हिंदी	- पत्रलेखन- कार्यालयीन एवं व्यावसायिक, पारिभाषिक शब्दावली, वृत्तान्तलेखन।



### कक्षा १० वीं

१. गद्य :	१२ पाठ : ५० पृष्ठ (लगभग)
कहानी	४
निबंध	४
एकांकी	१
विज्ञान/पर्यावरण	१
यात्रावर्णन	१
हास्यव्यंग्य	१

१२

### २. पद्य - १०० पद्य पंक्तियाँ

मध्ययुगीन : कविताएँ, द्विवेदीयुगीन, छायावादी,  
नई कविता, समकालीन (प्रकृतिपरक :  
२ कविताएँ हो)

### ३. स्थूलवाचन (विविधा)

(लगभग बीस पृष्ठ) ५ से ६ पाठ

### ४. व्याकरण - पूर्वज्ञान की आवृत्ति

मुँहावरें - अर्थ लिखकर वाक्यप्रयोग, अव्यय  
पहचानना तथा वाक्यप्रयोग, कालपरिवर्तन,  
अशुद्ध वाक्यों का शुद्धिकरण

### ५. रचनाविभाग

निबंध- विचारात्मक, वर्णनात्मक,  
आत्मकथात्मक। कहानी लेखन - रूपरेखा के  
आधार पर, आकलन।

प्रयोजनमूलक हिंदी -

पत्रलेखन- कार्यालयीन एवं व्यावसायिक,  
विज्ञापन पारिभाषिक शब्दावली।





## 2.2 हिंदी (संयुक्त)

सामाजिक संप्रेषण का महत्वपूर्ण साधन है - भाषा! भारत जैसे भाषाबहुल देश में भाव तथा विचारों के आदान-प्रदान के लिए हिंदी भाषा का महत्व सर्वविदित है। अहिंदी भाषी प्रदेशों में भावात्मक एकता के लिए हिंदी की नितांत आवश्यकता है।

छात्रों की अभिरुचि, आयु तथा संयुक्त हिंदी की सीमाओं को ध्यान में रखते हुए पाठ्यक्रम की निर्मिति की गई है।

**उद्देश्य -**

- १) छात्रों की भाषिक क्षमता विकसित करना। हिंदी भाषा की संरचनागत तथा व्याकरणिक विशेषताओं से परिचित कराना।
- २) संयुक्त भाषा के रूप में हिंदी भाषा का आकलन तथा साहित्य का रसास्वादन करने की क्षमता बढ़ाना।
- ३) प्रसारमाध्यमों के हिंदी कार्यक्रमों के प्रति रुचि जगाना।
- ४) सरकारी कामकाज में प्रयुक्त हिंदी से परिचित कराना।
- ५) विविध साहित्यिक एवं साहित्येतर पाठों के माध्यम से छात्रों का भावात्मक तथा ज्ञानात्मक विकास करना।
- ६) छात्रों में संभाषण तथा लेखनकौशल विकसित करना।

**कक्षा ९ वीं**

लगभग

१. गद्य -	३० पृष्ठ (लगभग)
पाठ-	८
कहानी	३
निबंध	३ (हास्य व्यंग्य - १)
एकांकी	१
पर्यावरण	१
	८

२. पद्य -	२५-३० पंक्तियाँ (लगभग)
कुल कविताएँ	६
मध्ययुगीन	१
आधुनिक	५

६

३. व्याकरण	
मुँहावरें	
अव्यय पहचानना अव्ययों का स्थूल परिचय	

४. रचना	
निबंध -	आत्मकथात्मक
	वर्णनात्मक
	कल्पनात्मक
पत्रलेखन -	अनुवाद/व्यावसायिक

**कक्षा १० वीं**

१. पाठ - ३० पृष्ठ (लगभग)	
गद्य -	८
कहानी	३
निबंध	३ (हास्यव्यंग्य - १)
एकांकी	१
पर्यावरण	१

८

२. पद्य - ६ कविताएँ लगभग (२५-३० पंक्तियाँ)	
मध्ययुगीन १	
आधुनिक ५	
३. व्याकरण	
मुँहावरें	
अव्ययों का वाक्यों में प्रयोग	

**महत्त्वपूर्ण :** इस प्रारूपमें आवश्यकतानुसार परिवर्तन करने का अधिकार 'मंडळ' के हिंदी अध्ययन मंडल को रहेगा।



## 2.3

# मराठी (द्वितीय भाषा)

### प्रास्ताविक

मराठी ही महाराष्ट्राची राजभाषा आहे. भारतातील प्रगत भाषांपैकी मराठी ही एक भाषा आहे. विविध प्रांतातील अनेक अमराठी भाषिक लोक महाराष्ट्रात राहतात. त्यांची मातृभाषा जरी वेगळी असली तरी हे लोक महाराष्ट्रात राहत असल्यामुळे त्यांना दैनंदिन व्यवहार चालविण्यासाठी मराठी भाषा अवगत होणे अनिवार्य आहे. त्यामुळे त्यांनी मराठी भाषा शिकण्याची अत्यंत आवश्यकता आहे. त्यांच्यामध्ये मराठी भाषेबद्दल आपुलकी, प्रेम व जिह्वाळा निर्माण व्हावा, महाराष्ट्रातील लोकजीवन, परंपरा यांच्याशी एकरूपता निर्माण व्हावी, तसेच मराठी साहित्याची प्रातिनिधिक स्वरूपात ओळख व्हावी हाही द्वितीय भाषेचा आणखी एक हेतू आहे.

### उद्दिष्टे

- १) विद्यार्थ्यांना मराठी भाषेचे आकलन होऊन ती सहजपणे बोलता, वाचता आणि लिहिता येणे.
- २) मराठी भाषेतील शब्दसंग्रह वाढून त्याचे उपयोजन कौशल्य विकसित होणे.
- ३) योग्य उच्चार व योग्य स्वराघात यांचा मेळ साधून प्रकट वाचन करता येणे.
- ४) लेखनाच्या नियमांचा योग्य उपयोग करून लिहिता येणे.
- ५) मराठीतील विविध साहित्य प्रकारांचा आस्वाद घेता येणे व साहित्यिकांचा परिचय होणे.
- ६) राष्ट्रीय एकात्मता, विश्वबंधुत्व, विज्ञाननिष्ठा, सर्वधर्मसमभाव, स्त्री-पुरुष समानता, नैतिक मूल्ये, निसर्गप्रेम, श्रमप्रतिष्ठा आणि सामाजिक जाणीव इ. गुणांची वाढ व जोपासना करणे.
- ७) भाषेचा दैनंदिन व्यवहारात उपयोग करता यावा या दृष्टीने व्यावहारिक भाषेत प्रावीण्य मिळवून देणे.

- ८) चित्रपट, आकाशवाणी, दूरदर्शन, संगणक, ई-मेल, मोबाइल इ. दृक्-श्राव्य साधनांच्या द्वारे भाषिक अनुभव वाढविणे.

### इयत्ता ९ वी

गद्य पाठ : एकूण ५५ पृष्ठे

(प्रस्तावना, टीपा, स्वाध्याय वगळून)

पद्य पाठ : एकूण ओळी- १००

स्थूल वाचन : सुमारे १५ पृष्ठे.

व्याकरण : वाक्प्रचार, वाक्यात उपयोग करा लेखननियमानुसार शब्दांची दुरुस्ती, सामान्य रूप

विभक्ती आणि प्रत्यय ( फक्त परिचय गुण नाहीत)

समानार्थी/विरुद्धार्थी शब्द देणे

लेखन : अ) निबंधलेखन (मुद्यांच्या आधारे)

वर्णनात्मक १ विषय, कल्पनात्मक १ विषय (चरित्र/आत्मचरित्र हे प्रकार वगळण्यात आले आहेत )

आ) गोष्ट/कथालेखन (मुद्यांवरून गोष्ट)

इ) उतारा आकलन (अपठित उतार्यावर तीन प्रश्न देणे)

उपयोजित (व्यावहारिक) : अ) पत्रलेखन

१) औपचारिक पत्र

आ) वृत्तलेखन /जाहिरात

- महत्त्वपूर्ण : इस प्रारूप के आवश्यकतानुसार परिवर्तन करने का अधिकार 'मंडल' के 'हिंदी अध्ययन मंडल' को रहेगा!



## संवादकौशल्ये

इयत्ता १० वी

गद्य पाठ : सुमारे ५५ पृष्ठे  
(प्रस्तावना, टीपा, स्वाध्याय इ. वगळून)

पद्य : सुमारे १०० ओळी

स्थूल वाचन : सुमारे १५ पृष्ठे

व्याकरण : १) समास, द्विगू, द्वंद्व (तीन उपप्रकारांसह-  
समाहार, वैकल्पिक, इतरेतर))

२) वाक्यप्रकार- प्रश्नार्थक, आज्ञार्थक,  
उद्गारवाचक, विधानार्थी

३) लेखननियमांनुसार शब्द लिहिणे

४) वाक्प्रचार

लेखन : अ) निबंध (दिलेल्या मुद्द्यांचे आधारे)  
वर्णनात्मक १, कल्पनाप्रधान १, वैचारिक  
१

आ) गोष्ट/कथालेखन - (मुद्द्यांवरून)

इ) उतारा आकलन (अपठित उताऱ्यावर  
तीन प्रश्न देणे)

उपयोजित (व्यावहारिक) लेखन : अ) पत्रलेखन -  
व्यावसायिक

आ) वृत्तलेखन (बातमी लेखन) / जाहिरात

संवादकौशल्ये : तोंडी परीक्षा







## 2.4

# मराठी (संयुक्त)

मराठी ही महाराष्ट्राची राजभाषा आहे. या राज्यात विविध कारणांनी मराठी भाषिकांबरोबर गुजराथी, कन्नड, सिंधी, उर्दू इत्यादी भाषा बोलणारे लोकही राहतात. राज्यशासनाने या लोकांच्या सोईसाठी त्यांच्या शिक्षणाची व्यवस्था त्यांच्या मातृभाषेतून केली आहे. तथापि मराठी भाषिकांशी त्यांना सुलभतेने भाषिक व्यवहार करता यावा, मराठी भाषा, या भाषेतील साहित्यिक, साहित्य यांचा परिचय व्हावा; यासाठी त्यांना मराठी भाषा शिकणे आवश्यक आहे.

### उद्दिष्ट

- विद्यार्थ्यांचा मराठी भाषेतील शब्दसंग्रह वाढून त्यांचे उपयोजन कौशल्य विकसित होणे.
- मराठी भाषा सहजपणे बोलता, वाचता येणे.
- आपले विचार, भावना व कल्पना शुद्ध मराठीत लिहिता येणे.
- मराठी भाषेत व्यक्त झालेले विचार, भावना व कल्पना समजून घेणे.
- मराठी भाषा व संस्कृती यांच्याविषयी आपुलकी, सामंजस्य व भावनात्मक ऐक्य वाढविणे.

### इयत्ता ९ वी

- गद्य पाठ : सुमारे ३० पृष्ठे  
(प्रस्तावना, टिपा, स्वाध्याय वगळून)
- पद्य पाठ : सुमारे ५० ओळी
- लेखन
- निबंधलेखन : एकूण २ प्रकार

वर्णनात्मक/आत्मवृत्त

- कथालेखन : मुद्यांवरून गोष्ट
- व्याकरण : सामान्यरूप, लिंग, वचन, लेखननियमांनुसार शब्द लिहिणे.  
पाठ्यपुस्तकातील वाक्प्रचार

संवादकौशल्ये

### इयत्ता १० वी

- गद्य पाठ : सुमारे ३० पृष्ठे  
(प्रस्तावना, टिपा, स्वाध्याय इ. वगळून)
- पद्य पाठ : सुमारे ५० ओळी
- लेखन : एकूण ३ प्रकार
- वर्णनात्मक/आत्मवृत्तपर निबंध (दिलेल्या मुद्यांच्या आधारे)
  - मुद्यांवरून गोष्ट
  - पत्रलेखन
- व्याकरण : १) काळाचे प्रकार - वर्तमान, भूतकाळ, भविष्यकाळ  
२) वाक्यलेखन  
३) शुद्ध शब्द लिहिणे  
४) वाक्प्रचार (पाठांच्या आधारे)
- संवादकौशल्ये (तोंडीपरिक्षा)



# Urdu

(Second Language)

## General Objectives

### To enable the students to

1. read, write and speak Urdu in simple form.
2. have rapport with others through Urdu language.
3. understand the contents of the text.
4. develop the writing skill to express their thoughts and ideas in simple Urdu language.
5. acquire the skill in reading aloud with proper pronunciation and intonation.
6. acquire the skill of proper use of spelling and Punctuation in writing.
7. appreciate the beauty of the language and thoughts in the literary pieces included in the text.

### Specific Objectives : 'A'

1. To inspire the feelings of national integration and patriotism through Urdu language.
2. To nurture sense of national identity to respect India's common and cultural heritage
3. To develop awareness of unity in diversity.
4. To acquire scientific temper and rational behavior.
5. To respect human rights and socio-cultural values.
6. To develop sense of gender equality.
7. To develop the ability to understand the subject in a tension free environment.

## Specific Objectives : 'B'

1. To develop the skill of listening, speaking, reading and writing.
2. To enable students to develop ability to appreciate poetic beauty, figures of speech, etc.
3. To develop the ability to differentiate between speaker's satire and humour.
4. To develop the skill of students to express their ideas in debates.
5. To develop the ability of the usage of correct idioms, phrases and proverbs.

### Std. IX

**Prose** : 50 pages (Excluding notes, exercises, glossary)

**Poetry** : 150 lines. (Recitation : About 20 verses)

**Rapid Reading** : About 20 pages.

### Composition

1. Composition of simple passages
2. Story-writing based on a given theme or an outline.
3. Descriptive and narrative essays.
4. Translation of simple Urdu prose passages in the medium of instruction.
  - a) 10 written exercises are essential during the year.
  - b) Oral work and writing practice is essential.

### Grammar

1. Revision of the functional Grammar done in Std. VIII.
2. Parts of Speech (Simple)



3. Singular and Plural with Arabic and Persian rules, etc.
4. Gender- Feminine and Masculine with all Tenses, etc.

(Grammar should be based on prescribed Texts in particular but for the purpose of exercises and practice the examples from outside the text are advisable.)

#### **Oral Skills :**

**Std. X**

**Prose : About 50 pages**

**Poetry : About 200 lines.**

**Rapid Reading : About 20 pages.**

#### **Composition**

1. Story-writing based on a given theme or an outline
2. Descriptive or Reflective essays

3. Autobiographies
4. Letter- writing
5. Dialogue- writing
6. Comprehension
7. Precis- Writing
8. Translation of Urdu passages into the medium of instruction

(10 exercises to be written during the year)

#### **Grammar**

1. Alphabet vowels and consonants
2. Adjectives and Adverbs and their kinds.
3. Assertive, Interrogative, Imperative, Exclamatory, Affirmative and Negative sentences.

#### **Oral Skills :**





# Urdu

(Composite Language)

The Composite course of languages provide an opportunity to students to be in touch with the language culture of their mother tongue and also to develop the classic literary taste of the language of their liking. The composite course of Urdu language for Std. IX and X is designed and based on the criteria that Urdu plays an important role in the maintenance and preservation of composite culture of the country and that the national feeling of a free democratic country nurtured among the Indians during the previous two centuries through Urdu literature have to be made known to the younger generation. Urdu has therefore to continue, spreading message of love and integration through its passages meant for students' reading. Care has therefore been taken to highlight this character of the language and also to maintain the continuity of Urdu composite course prescribed at the vernacular stage.

## Objectives

To enable the student's to

1. read the simple passages of the text and of the news material relayed and published in the media.
2. be well conversant with the cultural nibeties of the language in order that they impress the listeners during conversation and verbal expression.
3. create an urge among students to know and learn more about the language.
4. develop the oral skill, to speak grammatically correct language and write it with correct orthography.

5. be aware of the rich cultural impact of the language in Indian society encouraging them to strive to use the language as a powerful instrument of preservation of national integration.
6. participate in multilingual cultural activities.

**Std. IX**

**Prose : 25 pages**

**Poetry : 80 lines. (Recitation 20 verses)**

## Composition

1. Narrative and Descriptive essays. With the help
2. Story writing on a given outline or given points
3. Letter-writing (simple).
4. Translation of simple Urdu prose passages into the medium of instruction (7 Exercises to be completed during the year)

## Grammar

1. Revision of functional grammar done in Std. VIII.
2. Parts of speech
3. Singular and Plural with Arabic and Persian rules, etc.
4. **Gender** : Feminine and Masculine with all Tenses etc

(Grammar should be based on prescribed Text but exercises for practice purpose and examples from outside the text may be used).



## Oral Skills :

**Std. X**

**Prose : 30 pages**

**Poetry : 100 lines.**

### Composition :

1. Narrative and Descriptive essays. With the help
2. Story-writing on a given outline. of given points
3. Letter-writing (simple).  
(7 Exercises to be written during the year)

## Grammar

1. Idioms and Proverbs and their uses.
2. Figures of Speech : Tashbih, Isteara, Tazad and Mubaleghal.

(Grammar portion should be based on Texts but for the purpose of exercises and practice, examples from outside the Text may be used.)

## Oral Skills





# Gujarati

(Second Language)

## Introduction

Curriculum renewal is the continuous process as the needs and the aspirations of the society keep on changing. Even in this new millennium, some of the earlier and yet significant social concerns of our country have remained unchanged. But at the same time, there have arisen certain new concerns which need to be given prime importance.

Continuous contemplation, awareness and research are the prerequisites for making our education lively and relevant. Only then shall we be able to maintain the quality of education and to produce skilled and efficient citizens.

The curriculum gives paramount importance of the following points.

1. National identity for the fundamental social ethical cultural and spiritual heritage.
2. need for strengthening unity and protecting cultural heritage.
3. Integrating syllabi with locally relevant knowledge with a view to making them cohesive and coherent.
4. The new syllabi offers suggestions to meet the challenges of globalization and the emergence of ICT (Information and Communication Technology).
5. Linking education with basic life skills.
6. Value education.
7. Coherence of knowledge, emotions and creativity.
8. Yoga and aesthetic development.
9. Making syllabi less content loaded.

10. Relating education with activity.

11. Introducing the upgraded National syllabus keeping in mind the trend and challenges of 21st century steps to overcome the problems faced by then and for future development.

The three foundations of curriculum, Appropriateness, Equality and Excellence have been taken into consideration. Moreover the element of flexibility is inherent in it. However, its success will be determined by the way in which educational Objectives are realized at various levels. i.e. from policy making to curricula framework, syllabus, textbooks and teachers. And finally in the classroom, in this long chain the syllabus is an important link between the curricula framework the teaching materials and the teachers.

At the Secondary level first language teaching aims at improving the communication skills, correctness in the usage of grammar and appropriate style of the learner, to use the language in real life situations-orally and in written form and developing reading comprehension at a reasonable speed. At the end of the Secondary education, learner should be able to use the first language orally and in written, form effectively and the second language in a generally acceptable manner.

All human beings use language to express their feelings, so it is a means of communication beside this, language is also a medium through which most of our knowledge is acquired. Language expresses our ideas, views, and other imaginations. With the language we celebrate our trend and tradition.



Development of language is ultimately stimulated by our cultural heritage and the needs of social development, but we would not overlook the reverse dependence either. Human society can not do without language as the most important, most perfect and universal means of communication, expression of thoughts and accumulation and means of expression. It is equally important to realize that languages are not discrete objects our theme almost frozen in time and space, both physical and mental.

The syllabi in Gujarati have been set to introduce the aims and to achieve the goal set by M.S.B.S. and H.S.E. It enhances the basic language abilities like learning, speaking, reading, writing and thinking. For this purpose syllabus is prepared as per the age and standards. The basic aim is to introduce, Linguistic Units and to develop linguistic skills of the students.

Last but not the least it is hoped that this will cater to the needs of the present education systems for which it is formulated.

### Objectives

To enable student's to

1. acquire fair knowledge of basic structure of the language and elements of grammar as per syllabus.
2. enrich the vocabulary.
3. acquire skill in reading silently story books, news papers, magazines and other prescribed texts with proper speed and understanding.
4. develop ability to narrate experiences, participate in debates and discussion and express their views in correct language and in logical sequence.
5. develop ability to express ideas from the text in their own language without sacrificing the content.

6. develop skills in writing composition like essays, letters, etc.
7. make proper use of dictionary and other reference material on their own.
8. develop interest in reading literary passages and appreciating the beauty of language and ideas in them.
9. cultivate broad human and cultural outlook through literature read by them.
10. develop the asthetic sense to appreciate imagination and creative pieces of literature.
11. develop awareness of unity in diversity.
12. develop the ability to understand the subject in a tension free environment.

### STD. - IX

1. **PROSE** : About 60 pages.
2. **POETRY** : About 60 Lines.
3. **RAPID READER** : About 20 pages.
4. **COMPOSITION**
  - a) Conversation
  - b) Letter writing
    - i) Formal
    - ii) Informal
  - c) Story writing by given points.
  - d) Advertisement.
  - e) Unseen prose and poetry.
  - f) Essay Writing
    - i) Biographical
    - ii) Descriptive
    - iii) Imaginative
  - g) Translation from English to Gujarati
  - e) Precis
5. **GRAMMAR** :
  - a) Type of sentences
  - b) Noun/Pronoun
  - c) Adjective



- d) Verb
- e) Punctuation
- f) Sandhi
- g) Samas [Dwandwa, Dwigu, Madhyampadlopi]

**STD. - X**

- 1. **PROSE : About 60 pages**
- 2. **POETRY : About 60 Lines**
- 3. **RAPID READER : About 20 pages**
- 4. **COMPOSITION**
  - a) Conversation
  - b) Letter writing
    - i) Formal
    - ii) Informal
  - b) Story writing by given points
  - d) Advertisement
  - e) Unseen prose and poetry

- f) Essay Writing
  - i) Biographical
  - ii) Descriptive
  - iii) Imaginative
- g) Translation from English to Gujarati
- e) Precis

**5. GRAMMAR**

- a) Type of sentences
- b) Noun/Pronoun
- c) Adjective
- d) Verb
- e) Punctuation
- f) Sandhi
- g) Samas [Dwandwa, Dwigu, Madhyampadlopi]







# Gujarati

(Composite Language)

## Introduction

Gujarati is taught in Maharashtra as the first/second/composite level. As there are many Gujarati people in Maharashtra, Gujarati is used frequently in day to day life, Gujarati students, living in Maharashtra must be made aware of rich and varied heritage of Gujarati. They must be familiar with Gujarati life style, Gujarati culture, customs and traditions and festivals. Then only students will respect and love their mother tongue. The syllabus is framed considering this aspect.

Language being the medium of communication, content selected is expected to develop in the human and cultural values.

## Objectives

To enable the student's to

1. know and understand Gujarati language and grammar.
2. develop competency of listening, speaking, reading and writing conversation.
3. enrich vocabulary.
4. acquire skill in reading silently story books, newspapers, magazines and other prescribed texts with proper speed and understanding.
5. motivate students to use dictionary, library, and other reference books.
6. develop skills in writing compositions like essays, letters, summaries of given passages in optional language and its idioms.

7. develop ability to narrate experiences, participate in debates and discussions and express their views in correct language.
8. appreciate the beauty of language.

### Std. IX

#### 1. PROSE : About 30 pages

Expected from short stories, one-act-play, novels, travelogues, extracts from autobiographies

#### 2. POETRY: About 50 lines

Forms of medieval literature pada, folk songs, gazal, Song on nature

#### 3. GRAMMAR

Noun - Singulars-Plural, gender, Sandhi, Adjective, idioms, types of sentences

#### 4. COMPOSITION :

- a) Essay - Descriptive, Imaginative, Autobiographical
- b) Short stories

#### 5. COMMUNICATION SKILL

- a) Letter-writing-social
- b) Translation

#### 6. Oral/Conversational Skill

- a) Listening
- b) Narration
- c) Loud reading
- d) Conversation



**Std. X**

**1. PROSE : About 30 pages**

Expected from short stories, one-act-play, novels, travelogues, extracts from autobiographies

**2. POETRY : About 50 lines**

Forms of medieval literature pada, folk songs, gazal, song on nature

**3. GRAMMAR**

Noun- Singulars-Plural, gender, Sandhi, Adjective, idioms, type of sentences

**4. COMPOSITION**

a) Essay - Descriptive, Imaginative, Autobiographical

b) Short stories

**5. COMMUNICATION SKILL**

a) Letter-writing-social

b) Translation

**6. Oral/Conversation Skill :**

a) Listening

b) Narration

c) Loud reading

d) Conversation





# Kannada

(Second Language)

## Introduction

Kannada, Tamil, Telugu and Malayalam are taught as second language in Std. IX and X in the schools of Maharashtra, for the students who migrate from other parts of the country. The syllabus for these languages have been formulated according to the prescribed Objectives set up by the Maharashtra

Board for Secondary Education. The new curriculum is set not only to enhance the ability of the students to develop the basic skills like reading, writing, listening, speaking but also to study and understand the rich literature of these languages so as to develop belongingness to the language they speak at home everyday. In short the Objectives, in overall, would definitely help the students to grow into ideal human beings in the present era.

The syllabus for these languages are prepared keeping in mind the syllabus for Std I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to

1. enrich their vocabulary.
2. enhance their abilities in listening, speaking, reading and writing.
3. develop the abilities to use the language more accurately, effectively and meaningfully.
4. cultivate a broad human and cultural outlook through literature.

**Std. IX**

### 1. Prose : About 50 pages

(Exclusive of Introduction, notes, and exercise)

### 2. Poetry : About 100 lines

(Medieval and modern)

### 3. Rapid Reading : About 20 pages

### 4. Composition

- a) Story writing based on given outlines
- b) Essays of about 120 words mainly on experience, activities, incidents or places of interest. (i) Narrative (ii) Descriptive
- c) Letter writing: Formal and Informal
- d) Comprehension of a simple prose about 120 words.

**Note :** The total number of exercises to be done by students during the years-12

### 5. Grammar

Revision of the portion covered in the previous classes.

- 1) Sandhi - Lop sandhi, Agama Sandhi, Adesh Sandhi.
- 2) Sentences and their parts namely subject, object, verb.
- 3) Change the voice kartari, karmani prayoga.
- 4) Verb - Tenses: Past, Present and Future
- 5) Idiom and proverbs arising out of Text.



## 6. Conversational Skills

Std. X

1. **Prose** : About 50 pages Exclusive of Introduction, notes and exercise
2. **Poetry** : About 100 lines (Medieval and modern)
3. **Rapid Reading** : About 20 pages
4. **Composition**
  - a) Story writing based on given outlines.
  - b) Essays of about 120 words mainly on experience, activities, incidents or places of interest. (i) Descriptive (ii) Autobiography.
  - c) Letter writing : Formal and Informal

- d) Comprehension of a simple prose about 120 words.

**Note** : The total number of exercises to be done by students during the years-12

## 5. Grammar

Revision of the grammar items covered in the previous classes.

- 1) Kinds of Sentences : Simple, Compound and Complex
- 2) Noun, Verb, Adjectives and Adverb
- 3) Active and passive voice
- 4) Krodanta, Taddhita and Samasa arising out of text
- 5) Idiom and proverbs arising out of the text

## 6. Conversational skills





# Kannada

(Composite Language)

## Introduction

In the modern world, it has become very common for human beings to migrate from one place to another for various reasons such as transfer of service, in search of jobs, etc. Our Country is a composition of multilingual states. To fulfill the aspirations of the immigrants, the Maharashtra State Board of started Composite courses in different Indian languages at the Secondary level. It would also give an opportunity for students from other states to learn these languages if they are interested. The learning of these languages would give the students a feeling of happiness and well-being in their life.

The syllabus for these languages are prepared keeping in mind the syllabus for Std. I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to

1. enrich their vocabulary.
2. enhance their abilities in listening, speaking, reading, writing and communication.
3. develop life skills.
4. develop the abilities to use the language more accurately, effectively and meaningfully.
5. understand the importance of conservation of resources, cultural heritage, health and hygiene.
6. get awareness about environmental studies.
7. develop among the students, the feeling and respect for love of nation, unity and

national harmony, scientific vision work culture, equality, enterprise education, the basic values of life.

**Std. IX**

### 1. Prose : 30 pages

(Exclusive of Introduction, notes and exercise etc.)

### 2. Poetry : About 60 lines

(Modern Poetry only)

### 3. Composition

- a) Essay writing: about 100 words with the help of the given points.
- b) Story writing with the help of the given points.

### 4. Grammar

Revision of the grammar items covered in the previous classes.

- a. Nouns and Pronouns
- b. Verbs - Tenses : Present, Past and Future only.
- c. Gender and number
- d. Parts of Sentences : (Karthā, Karma, Kriyā)

### 5. Communication skills

**Std. X**

### 1. Prose : 30 pages

(Exclusive of Introduction, notes, and exercise etc.)

### 2. Poetry : About 60 lines

(Modern and Medieval)



### 3. Grammar

- a. Adverb, Adjective
- b. Vibhakti- Pratyaya (Vettkumaikal)
- c. Simple and Compound Sentences. (Identifying)
- d. Idioms and Phrases (Using in a meaningful sentence)

### 4. Composition :

- a) **Essay writing** : about 100 words with the help of the given points

- b) Story writing with the help of the given points.

### 5. Communication skills (Written)

- a) Letter- writing to friends and relatives with the help of given points
- b) Preparation of invitation cards

### 6. Communication skills





# Tamil

(Second Language)

## Introduction

Kannada, Tamil, Telugu and Malayalam are taught as second language in Std. IX and X in the schools of Maharashtra, for the students who migrate from other parts of the country. The syllabus for these languages has been formulated according to the prescribed Objectives set up by the Maharashtra Board for Secondary Education. The new curriculum is set not only to enhance the ability of the students to develop the basic skills like reading, writing, listening, speaking but also to study and understand the rich literature of these languages so as to develop belongingness to the language they speak at home everyday. In short the Objectives, in overall, would definitely help the students to grow into ideal human beings in the present era.

The syllabus for these languages are prepared keeping in mind the syllabus for Std I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to

1. enrich their vocabulary
2. enhance their abilities in listening, reading, writing and speaking.
3. develop the abilities to use the language more accurately, effectively and meaningfully.
4. Cultivate a broad human and cultural out look through literature.

## Std. IX

1. **Prose : About 50 pages**  
Exclusive of Introduction, notes and exercise
2. **Poetry : About 100 lines**  
(Medieval and modern)
3. **Rapid Reading : About 20 pages**
4. **Composition**
  - a) Story writing based on given outlines
  - b) Essays of about 120 words mainly on experience, activities, incidents or places of interest.  
(i) Descriptive (ii) Narrative
  - c) Letter writing: Formal and Informal
  - d) Comprehension of a simple prose about 120 words

**Note :** The total number of exercises to be done by students during the years-12

## 5. Grammar

Revision of the portion covered in the previous classes.

- 1) Alphabets - Vuyir, mai, Vuyirmai, aayutham and their classifications
- 2) Sentence and its parts. Noun and verb only
- 3) Words - Nouns, Pronouns, Kinds of nouns, thinai, Pal, enn, idom.
- 4) Verb - Tense : Past, Present, Future
- 5) Idioms and Proverbs arising out of texts.

## 6. Conversational skills



**Std. X**

1. **Prose** : About 50 pages  
Exclusive of Introduction, notes, and exercise
2. **Poetry** : About 100 lines  
(Medieval and modern)
3. **Rapid Reading** : About 20 pages
4. **Composition**
  - a) Story writing based on given outlines.
  - b) Essays of about 120 words mainly on experience, activities, incidents or places of interest. (i) Descriptive (ii) Autobiography
  - c) Letter writing: Formal and Informal

- d) Comprehension of a simple prose about 120 words

**Note :** The total number of exercises to be done by students during the years-12

**5. Grammar**

- 1) Adjective and Adverbs
- 2) Words : Nouns, Pronouns, Kinds of nouns
- 3) Agupeyar and its kinds
- 4) Idiom and proverbs arising out of text
- 5) Tenses and Gender
- 6) Vettumigal

**6. Conversational skills**







# Tamil

(Composite Language)

## Introduction

In the modern world, it has become very common for human beings to migrate from one place to another for various reasons such as transfer of service, in search of jobs etc. Our country is a composition of multilingual states. To fulfill the aspirations of the immigrants, the Maharashtra State Board started Composite courses in different Indian languages at the Secondary level. It would also give an opportunity for students from other states to learn these languages if they are interested. The learning of these languages would give the students a feeling of happiness and well-being in their life.

The syllabus for Tamil (composite course) is prepared keeping in mind the syllabus for Std. I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to

1. enrich their vocabulary.
2. enhance their abilities in listening, reading, writing, speaking and communication.
3. develop life skills.
4. develop the abilities to use the language more accurately, effectively and meaningfully.
5. understand the importance of conservation of resources, cultural heritage, health and hygiene.
6. get awareness about environmental studies.

7. develop among the students, the feeling and respect for love of nation, unity and national harmony, scientific vision work culture, equality, enterprise education, the basic values of life.

### Std. IX

#### 1. Prose : 30 pages

(Exclusive of Introduction, notes, and exercise etc.)

#### 2. Poetry : About 60 lines

(Modern Poetry only)

#### 3. Composition :

- a) Essay writing: about 100 words with the help of the given points.
- b) Story writing with the help of the given points.

#### 4. Grammar

Revision of the portion covered in the previous classes.

- a. Nouns and Pronouns
- b. Verbs - Tenses: Present Past and Future only.
- b. Gender and number
- d. Parts of Sentences :  
(Karthā, Karma, Kriya)

#### 5. Communication skills

### Std. X

#### 1. Prose : 30 pages

(Exclusive of Introduction, notes, and exercise etc.)

#### 2. Poetry : About 60 lines

(Modern and Medieval)



**3. Grammar :**

- a. Adverb, Adjective
- b. Vibhakti- Pratyaya (Vettkumaikal)
- c. Simple and Compound Sentences (Identifying)
- d. Idioms and Phrases (Using in a meaningful sentence)

**4. Composition :**

- a) Essay writing: about 100 words with the help of the given points

- b) Story writing: with the help of the given points

**5. Communication Skills (Written)**

- a) Letter- writing to friends and relatives with the help of the given points
- b) Preparation of invitation cards

**6. Communication skills**





# Telugu

(Second Language)

## Introduction

Kannada, Tamil, Telugu and Malayalam are taught as second language in Std. IX and X in the schools of Maharashtra, for the students who migrate from other parts of the country. The syllabus for these languages has been formulated according to the prescribed Objectives set up by the Maharashtra Board for Secondary Education. The new curriculum is set not only to enhance the ability of the students to develop the basic skills like reading, writing, listening, speaking but also to study and understand the rich literature of these languages so as to develop belongingness to the language they speak at home everyday. In short the Objectives, in overall, would definitely help the students to grow into ideal human beings in the present era.

The syllabus for Telugu language is prepared keeping in mind the syllabus for Std. I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to

1. enrich their vocabulary
2. enhance their abilities in listening, reading, writing and speaking.
3. develop the abilities to use the language more accurately, effectively, and meaningfully.
4. cultivate a broad human and cultural outlook through literature.

## Std. IX

1. **Prose : About 50 pages**  
(Exclusive of Introduction, notes, and exercise )
2. **Poetry : About 100 lines**  
(Medieval and modern)
3. **Rapid Reading : About 20 pages**
4. **Composition**
  - a) Story writing based on given outlines
  - b) Essays of about 120 words mainly on experience, activities, incidents or places of interest. (i) Narrative (ii) Descriptive
  - c) Letter writing : Formal and Informal
  - d) Comprehension of a simple prose about 120 words

**Note :** The total number of exercises to be done by students during the years-12

## 5. Grammar

Revision of the portion covered in the previous classes.

1. Vakyamu : Vaakya Angamulu- Kartha, Karma, Kriya
2. Bhasha bhagamulu : Namavabhakamu, Sarvanamamu, Visheshnamu
3. Vibhaktulu - Pratyayamulu
4. Sandhi - Telugu - Akara, Ikara, Vukara Sandhulu  
Sanskrit - Savarnadeerga, Guna Sandhulu.
5. Samasamulu - Dwiguvu, Dvandwa, Tatpurusha

## 6. Conversational Skills



**Std. X**

**1. Prose : About 50 pages**

Exclusive of Introduction, notes, and exercise

**2. Poetry : About 100 lines**

(Medieval and modern)

**3. Rapid Reading : About 20 pages**

**4. Composition**

- a) Story writing based on given outlines.
- b) Essays of about 120 words mainly on experience, activities, incidents or places of interest. (i) Descriptive (ii) Autobiography
- c) Letter writing : Formal and Informal
- d) Comprehension of a simple prose about 120 words

**Note :** The total number of exercises to be done by students during the years-12

**5. Grammar**

Revision of the portion covered in the previous classes.

**1. Vakya rakamulu**

- 1. Nisbhayataka 2. Vyatirekarthaka
- 3. Prasnartaka 4. Asbeharyartaka.

**2. Bhashabhagamulu**

- 1. Visheshanamu,
- 2. Kriya Visheshanamu
- 3. Avyayamu

**3. Kalamu**

- 1. bhutakalamu,
- 2. Varthamana Kalamu
- 3. Bhavshyat Kalamu.
- 4. Tadharmrthaka Kalamu

**4. Sandhi**

Telugu-yadagama, Druta, Trika  
Sandhulu  
Sanskrit - Vrudhi, yanadeesa Sandhulu

**5. Samasamu**

Visheshana purvapada,  
Sambhavana purvapada, Bahurvrihi,  
Rupaka.

**6. Conversational skills**





# Telugu

(Composite Language)

## Introduction

In the modern world, it has become very common for human beings to migrate from one place to another for various reasons such as transfer of service, in search of jobs etc. Our Country is a composition of multilingual states. To fulfill the aspirations of the immigrants, the Maharashtra State Board started Composite courses in different Indian languages at the Secondary level. It would also give an opportunity for students from other states to learn these languages if they are interested. The learning of these languages would give the students a feeling of happiness and well-being in their life.

The syllabus for these languages are prepared keeping in mind the syllabus for Std. I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to

1. enrich their vocabulary
2. enhance their abilities in listening, reading, writing, speaking and communication
3. develop life skills
4. develop the abilities to use the language more accurately, effectively and meaningfully
5. understand the importance of conservation of resources, cultural heritage, health and hygiene
6. get awareness about environmental studies

7. develop among the students, the feeling and respect for love of nation, unity and national harmony, scientific vision work culture, equality, enterprise education, the basic values of life.

### Std. IX

#### 1. Prose : 30 pages

(Exclusive of Introduction, notes, and exercise etc.)

#### 2. Poetry : About 60 lines

(Modern Poetry only)

#### 3. Composition :

- a) Essay writing : about 100 words with the help of the given points
- b) Story writing with the help of the given points

#### 4. Grammar

Revision of the portion covered in the previous classes.

- a. Nouns and Pronouns
- b. Verbs - Tenses : Present, Past and Future only.
- c. Gender and number
- d. Parts of Sentences : (Karthā, Karma, Kriyā)

#### 5. Communication Skills

### Std. X

#### 1. Prose : 30 pages

(Exclusive of Introduction, notes, and exercise etc.)

#### 2. Poetry : About 60 lines

(Modern and Medieval)



### 3. Grammar

- a. Adverb, Adjective
- b. Vibhakti- Pratyaya (Vettkumaikal)
- c. Simple and Compound Sentences (Identifying)
- d. Idioms and Phrases (Using in a meaningful sentence)

### 4. Composition :

- a) Essay writing : about 100 words with the help of the given points

- b) Story writing : with the help of the given points

### 5. Communication Skills (Written)

- a) Letter- writing to friends and relatives with the help of given points
- b) Preparation of invitation cards

### 6. Communication skills





# Malayalam

(Second Language)

## Introduction

Kannada, Tamil, Telugu and Malayalam are taught as second language in Std. IX and X in the schools of Maharashtra, for the students who migrate from other parts of the country. The syllabus for these languages has been formulated according to the prescribed Objectives set up by the Maharashtra State Board of Secondary Education. The new curriculum is set not only to enhance the ability of the students to develop the basic skills like reading, writing, listening, speaking but also to study and understand the rich literature of these languages so as to develop belongingness to the language they speak at home everyday. In short the Objectives, in overall, would definitely help the students to grow into ideal human beings in the present era.

The syllabus for these languages are prepared keeping in mind the syllabus for Std. I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to

1. enrich their vocabulary
2. enhance their abilities in listening, reading, writing and speaking
3. develop the abilities to use the language more accurately, effectively and meaningfully
4. cultivate a broad human and cultural outlook through literature

## Std. IX

1. **Prose : About 50 pages**  
(Exclusive of Introduction, notes and exercise)
2. **Poetry : About 100 lines**  
(Medieval and modern)
3. **Rapid Reading : About 20 pages**
4. **Composition**
  - a) Story writing based on given outlines
  - b) Essays of about 120 words mainly on experience, activities, incidents or places of interest. (i) Narrative (ii) Descriptive
  - c) Letter writing : Formal and Informal
  - d) Comprehension of a simple prose about 120 words

**Note :** The total number of exercises to be done by students during the years-12

## 5. Grammar

Revision of the portion covered in the previous classes

- 1) Sandhi - Lopa sandhi and Dvitwasandhi
- 2) Sentences and its parts: subject, object, verb
- 3) Samasas - Tatpurusha, Upama
- 4) Tenses- Past, Present and Future
- 5) Parts of Speech - Noun, Pronoun, Visheshanam, Verb, Ayyayam
- 6) Idiom and proverbs arising from Text book

## 6. Conversational Skills



**Std. X**

**1. Prose : About 50 pages**

Exclusive of Introduction, notes, and exercise

**2. Poetry : About 100 lines**

(Medieval and modern)

**3. Rapid Reading : About 20 pages**

**4. Composition**

- a) Story writing based on given outlines
- b) Essays of about 120 words mainly on experience, activities, incidents or places of interest. (i) Descriptive (ii) Autobiography
- c) Letter writing : Formal and Informal
- d) Comprehension of a simple prose about 120 words

**Note :** The total number of exercises to be done by students during the years-12

**5. Grammar**

Revision of the portion covered in the previous classes

1. Kinds of sentences

Simple, Compound and Complex (Only recognition)

2. Adjectives and Adverbs

3. Active and Passive Voice

4. Idiom and proverbs arising out of text

5. Tenses

**6. Conversational skills**







# Malayalam

(Composite Language)

## Introduction

In the modern world, it has become very common for human beings to migrate from one place to another for various reasons such as transfer of service, in search of jobs etc. Our country is a composition of multilingual states. To fulfill the aspirations of the immigrants, the Maharashtra State Board started Composite courses in different Indian languages at the Secondary level. It would also give an opportunity for students from other states to learn these languages if they are interested. The learning of these languages would give the students a feeling of happiness and well-being in their life.

The syllabus for these languages are prepared keeping in mind the syllabus for Std. I to VIII and also the curriculum followed by the concerned states.

## Objectives

To enable students to

1. enrich their vocabulary
2. enhance their abilities in listening, speaking, reading, writing and communication
3. develop life skills
4. develop the abilities to use the language more accurately, effectively and meaningfully
5. understand the importance of conservation of resources, cultural heritage, health and hygiene
6. get awareness about environmental studies
7. develop among the students, the feeling

and respect for love of nation, unity and national harmony, scientific vision work culture, equality, enterprise education, the basic values of life.

### Std. IX

#### 1. Prose : 30 pages

(Exclusive of Introduction, notes and exercise etc.)

#### 2. Poetry : About 60 lines

(Modern Poetry only)

#### 3. Composition

- a) Essay writing : about 100 words with the help of the given points
- b) Story writing with the help of the given points

#### 4. Grammar

Revision of the portion covered in the previous classes

- a. Nouns and Pronouns
- b. Verbs - Tenses : Present, Past and Future only
- c. Gender and number
- d. Parts of Sentences : (Karthā, Karma, Kriyā)

#### 5. Communication skills

### Std. X

#### 1. Prose : 30 pages

(Exclusive of Introduction, notes and exercise etc.)

#### 2. Poetry : About 60 lines



(Modern and Medieval)

**3. Grammar**

- a. Adverb, Adjective
- b. Vibhakti - Pratyaya (Vettkumaikal)
- c. Simple and Compound Sentences. (Identifying)
- d. Idioms and Phrases (Using in a meaningful sentence)

**4. Composition**

- a) Essay writing : about 100 words

with the help of the given points

- b) Story writing : with the help of the given points

**5. Communication Skills (Written)**

- a) Letter- writing to friends and relatives with the help of the given points
- b) Preparation of invitation cards

**6. Communication skills**





# Sindhi

(Second Language)

## Introduction

Sindhi is one of the oldest language and having rich literature. In 1947, after independence of India, the largest number of Hindu Sindhis migrated from Sindh to the different parts of India, particularly Maharashtra. In the wake of Partition; as before 1936, the whole of Sindh state was a part of Bombay Presidency hence many Sindhi medium schools were opened in different towns of Maharashtra and the students are allowed to appear through Sindhi medium up to Standard X.

## Objectives

To enable students to

1. utter the language correctly e.g. pronunciation, conversation and various basic concepts of grammar
2. read newspapers, periodicals and journals regularly.
3. create interest among students to listen various Radio programmes and to watch different T. V. channels
4. recite Sindhi poetry, story telling, essay writing and participate in group discussion
5. develop the feeling of love and respect for nation, unity harmony and basic values of life, etc.

### Std. IX

1. **Prose : About 50 pages**  
(Exclusive of notes & exercises etc.)
2. **Poetry : About 100 lines**  
(50 lines prescribed for recitation)

## 3. Rapid Reading : About 20 pages

## 4. Composition

(Student's are expected to write at least 10 exercises during the academic year)

- a) Simple descriptive essays (about 100 words)
- b) Story forming from given outlines (about 10)

## 5. Communication skill (Written)

- a. Letter writing formal & Informal (about 50 words)
- b. Report writing (about 50 words)

## 6. Grammar

- a. Study of words in sentences :  
Identifying parts of speech verbs and adverbs
- b. Gender, number and person
- c. Sentence and its parts
- d. Simple word formation
- e. Idioms, phrases and proverbs with meaning arising out of the text

## 7. Oral Skill

### Std. X

1. **Prose : About 50 pages**  
(Exclusive of notes & exercises, etc.)
2. **Poetry : About 100 lines**  
(50 lines prescribed for recitation)
3. **Rapid reading : About 20 pages from the text book**
4. **Composition :**  
(Students are expected to write at least



10 exercises during the academic year)

- a. Simple descriptive essays (about 100 words)
- b. Story forming from given outline (about 100 words)

**5. Communication skill (written)**

- a. Letter writing formal towards relatives, friends and business letters (about 50 words)
- b. Report writing (about 50 words)

**6. Grammar**

- a. Types of sentences : assertive, interrogative, imperative, exclamatory, affirmative and negative etc.
- b. Word formation: abstract nouns, synonyms and antonyms
- c. Simple transformation of sentences
- d. Idioms, phrases and proverbs as arising out of texts.

**7. Oral/Conversation Skill**





# Sindhi

(Composite Language)

Sindhi, Bengali and Punjabi are the languages that are rich in their literature. They are the decedent of Indo-Aryan family of languages. In their own state the language is taught and learnt. While Sindhi is being taught in Maharashtra, Gujarati, Rajasthan and Delhi, as Sindhis are scattered in India after partition. However, it always happens that people from other states come to Maharashtra for their own reason, like industrial development, transfer in services, in search of job etc. In such situations they have to learn the state language in order to mix with the people. At the same time they are eager to keep alive their own mother tongue in order to mix with people. Maharashtra State Board of Secondary and Higher Secondary Education is very enthusiastic to offer this facility to learn mother-tongue, for students of Bengali, Punjabi and Sindhi.

Lakhs of Sindhis, Bengalis and Punjabis in Maharashtra are scattered, throughout the state, and Maharashtra State Board is eager help the children learn these languages if they wish. Any migrated service man, wishing to keep his child in touch with mother-tongue should be able to do so. As a first language, the study is comparatively deep as in the base of Bengali and Sindhi and thus, minor language speakers are also able to express themselves in their mother-tongues.

## Objectives

To enable the student's to

1. able to use the language correctly, e. g. pronunciation, conversation and various basic concepts of grammar.

2. to encourage the students to read regularly the daily newspapers, periodicals and journals, etc.
3. create interest among students to listen various Radio programmes and to watch different T. V. channels.
4. celebrate particular days, relevant to Specific language i.e. Sindhi, Punjabi, Bengali every year, with elocution, poetry recitation, story telling, essay writing and group discussion etc.
5. develop among the students, the feeling of love and respect for love of nation, unity and national harmony, scientific vision, work culture, equality, enterprise education, the basic values of life, etc.

### Std. IX/X

1. **Prose : a textbook of about 30 pages**
2. **Poetry : about 50 lines**
3. **Composition**
  - b. Essay of about 200 words
  - c. Letter writing to relatives, friends on social matters in about 10 lines
  - d. Comprehension
4. **Grammar**

### Std. IX

- a. Tenses- simple & Compound
- b. Indeclinable
- c. Change of Gender
- d. Word derivation
- e. Analysis of sentences



- f. Transformation of sentences
- g. Idioms, proverbs, phrases as arising out of texts
- h. Figures of speech
- i. Punctuation

**Std. X**

**Prescribed Text Book Balbharti Std. VIII (Sindhi) 2009 Published by Maharashtra State Bureau of Text Book and Production Curriculum Research, 'Balbharti', Senapati Bapat Marg, Pune – 411 004**

### **Portion**

**Prose : About 50 pages.**

(Exclusive of notes and Exercises etc.)

(Lesson No. 3, 5, 7, 12, 14, 19, 24, 25, 33, 36)

(Total 10 lessons)

**Prose : About 100 lines.**

(Poem No. 1,6,11,13,20,26,29,31)

(Total 8 poems)

**Rapid Reader : About 20 pages**

(Lesson No. 2,21,34) (Total 3 lessons)

### **Composition**

(A student is expected to write at least 10 exercises during the academic year)

- a. Simple descriptive essay (about 100 words)
- b. Story writing from given outlines. about 100 words)

### **Communication Skill**

- 1. Letter writing towards relatives, friends or business (about 50 words)
- 2. **Report writing (about 50 words)**

### **Grammar**

- 1. Types of Sentences : (Assertive, interrogative, exclamatory, affirmative and Negative etc.)
- 2. Simple transformation of sentences.
- 3. Idioms, Phrases and Proverbs as arising out of texts

### **Conversational Skill**





# Punjabi

(Second Language)

**Publisher : Punjab School Education Board, Sahibzada Ajit Sing Nagar, Mohali Punjab.**

**Text Book : Punjabi Pathya Pustak No.7**

**Std. IX**

**Portion to be studied**

## PROSE

Lesson No. : 3. Jago

6. Baldan - wala Piara Singh
8. Punjabi-Di-Lok-Giaika-Surinder Kaur
12. Baba Banda Sing Bahadur
15. Baisakhi
19. Sabhdan - Hoshiar
20. Kartar Singh Sarbha
22. Shernia
23. Lala Lajpat Rai
25. Sat Dobtor
27. Gandhi ji.Sabhamati Ashram

## POETRY

Lesson No. : 1 Sona Rangian Dhupan

- 5 Ma-Da-Pyar
- 9 Same-Di-Bahar
- 13 Vehla
- 17 Sawan

## Compositions

(Each of 150 to 200 words)

1. My Best Friend
2. 15th August

3. My Mother
4. A Cricket Match
5. A hot-day in summer
6. Holi
7. My School
8. Guru Nanak Dev Ji
9. An autobiography of an old book
10. My favourite leader

## Story-Writing on given Outlines

1. Thirsty-Crow
2. Greedy-Dog
3. The lion and the mouse
4. Bad company
5. Union is strength

## Letters

1. An application for two days sick leave
2. An application for emission of fine
3. A letter to your friend explaining him how you celebrate your birthday.
4. A letter to your father to send you some money and allow you to go on a picnic.

## Dialogue

1. Between two brother
2. Between a coach and a player
3. Between a bookseller and
4. Between the mother and the daughter



## Grammar

Revision of the portion studied in Std. VIII

1. Gender, Number, Opposites
2. Idioms, phrases
3. Punctuation
4. Noun
5. Verb
6. Tense
7. Adjective
8. Add a Question-tag

**Std. X**

**Text Book : Punjab Path Pustak No. 8**

**Publisher : Punjab School Education Board, Sahibzada Ajit Singh Nagar, Mohali (Punjab).**

**Portion to be done**

**PROSE :**

Lesson No. : 2. Safaltwan Asfaltawan

3. Master Mela Singh
4. Molana Azad
7. Jeon Tere Babhre
8. Lohri
10. Nawan-Chehra
14. Unbhi-Than-da-Subha
15. Hari Kishan
16. Pritam Singh-da-Subha
19. Gaggi
21. Mohinder Singh Randhawa
23. Puara-Te-Jit

**Poetry**

1. Punjabi
5. Udam-Kari-Jaroor
9. Guru Amar das

13. Dosti

17. Gulab-Di-Fasal

24. Punjab

## Compositions

(Each 200 to 250 words)

1. My favourite Ledger
2. Guru Gobind Singh Ji
3. T.V. its merits and demerits
4. A visit to a historical place
5. A scene at the railway station
6. 26th January
7. A visit to Taj Mahal
8. Dussehra
9. My India
10. An autobiography of a river

## Story-writing on given outlines

1. Tit for tat
2. Two wise goats
3. Two friends and a bear
4. Shepherd boy
5. The fox and the grapes

## Letters

1. An application for school-leaving certificate
2. An application for fee concession
3. A letter to your father requesting him to send you some money
4. A letter to your friend to spend his summer vacation with you
5. A letter to book seller ordering him some books

## Dialogue

1. Between two sisters
2. Between a student and a teacher





3. Between a T.C. and a passenger
4. Between a Doctor and a patient
5. Between a father and a son

### **Grammar**

Revision of the portion studied in  
Std. IX :

1. Tense
2. Framing questions

3. Number, gender, opposite words
4. Idioms, proverbs, phrases
5. Punctuation
6. Formation of sentences
7. Su-fix, Pre-fix
8. Question-tag
9. Verb and adverb
10. Adjective





# Punjabi

(Composite Language)

**Publisher : Pubjab School Education Board, Sahibjada Ajit Singh Nagar, Mohali (Punjab).**

**Text Book : Punjab Path Pustak No. 7 (Second Language)**

**Std. IX**

**Portain to be studied.**

## Prose

2. Akkal Di Gal
3. Maharshi Balmikji
6. Babey De Puttar
10. Mahabharat
14. Sach ton vadda Hathiyaar
17. Yatra Hemkund Sahib
21. Tahnedari
26. Sarojini Naidu

## Poetry

1. Hari Piyari Bharat Ma
8. Holi Da Geet
15. Sardar Patel
22. Akashi Bijli

## Grammar

1. Tense - Simple & Compound
2. Change of gender and number
3. Word derivation
4. Analysis of sentence
5. Transformation of sentences
6. Idioms, proverbs, phrases as arising out of the text
7. Punctuation

## Composition

1. Essay of about 300 words
2. Letter writing to relatives, friends on social matters in about 10 lines
3. Translation from English to Punjabi about 5 lines
4. Comprehension
5. Story writing

**Std. X**

**Publisher : Pubjab School Education Board, Sahibjada Ajit Singh Nagar, Mohali (Punjab).**

**Text Book : Punjab Path Pustak No. 8 (Second Language)**

**Portain to be studied**

## Prose

3. Gup Baaj
6. Rani Sahib Kaur
8. Lok Naabh Bhangra
11. Kaniya Kumari
14. Dussehra
15. Prahlad Bhagat
27. Manwa Thandiya Shanva

## Poetry

4. Hor Da Hor Nee
10. Varkha Di Rut
16. Maa
22. Guru Nanak

## Grammar

1. Compound Verbs
2. Samasi Shabad



3. Opposite Words, Similar words
4. Pre-fix/Suffix
5. Idioms, proverbs, etc. from the text
6. Change of gender and number
7. Transformation of sentences

### **Composition**

1. Essay of about 300 words
2. Letter writing to relatives, friends of on social matters in about 10 lines
3. Comprehension
4. Story writing





# Bengali

(Second Language)

## Introduction

Bengali is rich in its literature. It is the decendent of Indo Aryan family of languages in its own state the language is taught and learnt. However, it always happens that people from other states come to Maharashtra for their own reason, like industrial development, transfer in services, in search of job etc. In such situations they have to learn the state language in order to mix with the people. At the same time they are eager to keep alive their own mother tongue/language and also want their children to learn the same.

## Objective

To enable students to

1. utter the language correctly e.g. pronunciation, conversaton and various basic concepts of grammar.
2. read regularly the daily newspapers, periodicals and journals, etc.
3. create interest among students to listen various radio programmes and to watch different T. V. Programmes etc.
4. celebrate particular days, relevant to specific language i.e. Sindhi, Punjabi Bengali ever year, elocution, poetry recitation, storytelling, essay writing and to participate group discussion etc.
5. develop the feeling and respect for love of nation, unity and national harmony, scientific vision, work culture, equality, enterprise education, the basic values of life, etc.

a. Prose - A text book about 60 pages.

b. Poetry-about 100 lines

**Std. IX**

**Text Book** – Bangla sahayak path (New Edition 2005 January)

**Publisher** – The West Bengal Board of Secondary Education

### 1. Prose – 60 pages

1. Post master
2. Abhagir swarga
3. Khajanbhi babu
4. dudher dam
5. Ashouyogi

### 2. Poetry

1. Mritunjay
2. Smirity bhinna
3. Kajala didi
4. Fariyadh
5. Agami

### 3. Rapid reading – About 20 pages

1. Deenu rakhit
2. Sougat

### 4. Composition

#### 1. Letter writing

- a. Personal letter to relatives and friends
  - b. Business/Official
2. Story writing from given points and outlines.



3. Essay- Narratives and descriptives (about two fifty words)
4. Comprehension of unseen passage
5. Precis

## 5. Grammar

1. Antonyms and synonyms (Opposite Word)
2. Sandhi
3. Pad-Paribartan-Noun to Adjective, Adjective to Noun
4. Gender
5. Make sentences from idioms and phrases
6. Verb(tense-Present, past, Future)
7. Giving one word

## 6. Oral/Conversational Skill

### Recommended Books on Bengali Grammar-

1. Adhunik bangla Vyakaran by Jagadish Chandra ghosh
2. Bhasha prakash bangla Vyakaran by Dr. Suniti K.Chattarjee
3. Bangla Vyakaran by Sukumar Sen
4. Madhyamik Bangla Vyakaran by Dr. Rabin Gupta
5. Best collection on Bengala Vyakaran and composition by Mr. M.S.Mallick Sir (BOS) (Rajiv Gandhi Jr. College, Bengali Camp, Chandrapur)

**Note – Above all grammar and texts book are available at –**

1. M/s. Debashree Book Depot, Bengali Camp, C/o Mr. M. S. Mallibk Sir (Rajiv Gandhi Jr. College, Bengali, Camp, Chandrapur – 442 401 Ph. 07172 – 261925, Cell Phone – 9422837698/ 9021581944
2. Any Book Depot, College Street,

Kolkata, West Bengal, India

**Std. X**

**Text Book – Bangla Sahayak Path (New Edition January – 2005)**

**Published by – The west Bengal Board of Secondary Education**

## 1. Prose - 60 page

1. Kabuliwala
2. Mamlar phal
3. Ajantrik
4. Debatar Janma
5. Banku Babur Bandhu

## 2. Poetry

1. Duranta Asha
2. Champa
3. Lohar bataha
4. Chithi
5. Swagat

## 3. Rapid Reading (about twenty pages)

1. Muktir Kata
2. Dhup Kathi

## 4. Grammar

1. Antonyms and Synonyms (Opposite word)
2. Sandhi
3. Pad-Paribartan-Noun to Adjective, Adjective to noun
4. Gender and Number
5. Make sentences from idioms and phrases
6. Verb – (Tense-Present, Past, Future)
7. Giving one word



## 5. Composition (about 260 words)

### 1. Letter Writing

1. Personal letter to relatives and friends
2. Business/Official

### 2. Story

Writing from given points and outlines.

1. Essay-Narratives and descriptives (about two fifty words)
2. Copenhension of unseen passage
3. Precis

## 6. Oral/Conversation Skill

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2. Bhasha prakash bangla Vyakaran by Dr. Suniti K. Chattarjee
3. Bangla Vyakaran - by Sukumar Sen

4. Madhyamik Bangla Vyakaran by Dr. Rabin Gupta

5. Best collection on Bangla Vyakaran and Composition composition – by Mr. M. S. Mallibk Sir, (BOS) (Rajiv Gandhi Jr. College, Bengali Camp, Chandrapur)

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Cell Phone – 9422837698/ 9021581944

2. Any Book Depot, College Street, Kolkata, West Bengal, India





# Bengali

(Composite Language)

## Introduction

Bengali is rich in its literature. It is the decendent of Indo Aryan family of languages in its own state the language is taught and learnt. However, it always happens that people from other states come to Maharashtra for their own reason, like industrial development, transfer in services, in search of job etc. In such situations they have to learn the state language in order to mix with the people. At the same time they are eager to keep alive their own mother tongue/language and also want their children to learn the same. The State Board has offered this facility to learn mother-tongue, for student of Bengali, Punjabi and Sindhi.

## Objective

To enable students to

1. utter the language correctly e.g. pronunciation, conversation and various basic concepts of grammar.
2. read regularly the daily newspapers, periodicals and journals, etc.
3. listen various radio programmes and to watch different T. V. Programmes.
4. celebrate particular days, relevant to specific language i.e. sindhi, Punjabi Bengali every year, elocution, poetry recitation, story telling, essay writing and to participate group discussion, etc.

**Std. IX**

**Text Book – Sahitya Chavan (II Part) New edition 2005**

**Publisher – Nikhil Bangha shikshak**

## samity, Kolkata

### 1. Prose – 35 pages

1. Char – Ghoshpure gora
2. Deshio shilper sarbonash
3. Nirjan arannye apu
4. Birangana

### 2. Poetry

1. Bharu dutter besati
2. Ramnagarer nayab Mashai
3. Poan
4. Harano Tupi

### 3. Grammar

1. Gender-Change the gender
2. Opposite word
3. Punctuation
4. Give one word
5. Idioms, Phrases (use in sentences) (from text book)
6. Pad-Paribartan (Noun to Adjective Adjective to Noun)

### 4. Composition

1. Letter writing – Personal letter to relatives and friends
2. Story writing from given points and outlilnes
3. Narrative and Descriptive essay writing

### 5. Oral skill



### Contact for the book -

1. M/s. Debashree Book Depot, Bengali Camp, C/o. Mr. M. S. Mallibk Sir (Bos) (Rajiv Gandhi Jr. College, Bengali Camp, Chandrapur – 442 401 Ph. 07172 – 261925, Cell Phone – 9422837698 / 9021581944
2. Any Book Depot, College Street, Kolkata, West Bengal, India

**Std. X**

**Text Book – Sahitya Chayan Part-II (New edition -2005)**

**Publisher by Nikhil Bangla Shikshakh Samiti**

#### 1. Prose – 35 pages

1. Beiman
2. Bannya
3. Aparajya Rammohan
4. Khaiber giri sankat

#### 2. Poetry

1. Barjatra
2. Jharna
3. Kulilmajur
4. Ranar

#### 3. Grammar

1. Gender (Change the gender)
2. Opposite Word
3. Punctuation
4. Give one word
5. Idioms and phrases (Use in sentences from text book)

6. Pad paribartan (Noun to Adjective, Adjective to Noun)

#### 4. Composition

1. Letter writing - Personal letter to relatives and friends
2. Story writing from the given points and outlines.
3. Eassay- Narratives and desbriptives

#### 5. Oral Skills

Recommended Books on Bengali Grammar-

1. Adhunik bangla Vyakaran by Jagadish Chandra Ghosh
2. Bhasha prakash bangla Vyakaran by Dr. Suniti K. Chattarjee
3. Bangla Vyakaran by Sukumar Sen
4. Madhyamik Bangla Vyakaran by Dr. Rabin Gupta
5. Best bollebtion on Bengali Grammar by Mr. M. S. Mallibk Sir (BOS), (Rajiv Gandhi Jr. College, Bengali Camp, Chandrapur)

**Note – Above all grammar and text book are available at –**

1. M/s. Debashree Book Depot, Bengali Camp, C/o. Mr. M. S. Mallibk Sir (Rajiv Gandhi Jr. College, Bengali Camp, Chandrapur – 442 401 Ph. 07172 – 261925, Cell Phone – 9422837698 / 9021581944
2. Any Book Depot, College Street, Kolkata, West Bengal, India







## Classical Languages

### 2.23, 2.24, 2.25, 2.26, 2.27, 2.28

### Sanskrit/Pali/Ardhamagadhi

#### Introduction

Sanskrit, Pali, Ardhamagadhi languages symbolize Indian culture and contribute immensely to the national integration and international feeling of friendship and fraternity.

These classical languages have the rich cultural heritage of various branches of learning such as Religion, Philosophy, History, Geography, lifesciences like Ayurveda, Alchemy, Architecture, Yoga, etc. and fine arts like Folklore, Music, Dance, Painting, Dramatics.

From the point of view of value-education also the study of classical languages is extremely useful especially in this era of erosion of values.

Moreover, Sanskrit has been now universally acknowledged and acclaimed to be the only language, most appropriate for computer because of its unique grammar,

precision and potential to coin new words. It is, therefore, absolutely necessary to acquaint the 21st century generation with Sanskrit.

At the same time the teachings of Lord Buddha and Lord Mahavir are essential for universal peace and brotherhood. Hence the study of Pali and Ardhamagadhi is also relevant.

Thus, the study of these classical languages will help the students to activate their thought process and improve their communication skills such as proper pronunciation in Modern Indian Languages too.

This syllabus of classical Languages is in consonance with the presecondary level up to Post-Graduate University-level. It can be said to be at par with the syllabi of neighbouring Boards' Secondary level. Similarly the syllabi of the NCERT and policy of SCF are also considered.





# Sanskrit

(Second Language)

## Introduction

Sanskrit is one of the oldest languages of the world from the period of Rigved. We can trace the development of Sanskrit language through संहिता, ब्राह्मण-ग्रन्थ, उपनिषद्-ग्रन्थ, नाट्य, etc. These are the salient features of Sanskrit language

This should be known to the students at the level of Secondary and higher Secondary Education. This is taken into account while restructuring the Sanskrit Syllabi.

Language is the means of effective Communication all over the world. Sanskrit language has great capability to coin new words as per the requirement, with the help of about 2000 roots, 22 prefixes and innumerable suffixes. So the study of Sanskrit is essential to enrich other regional languages too.

Sanskrit is not only the language of literature but also of sciences.

The knowledge of various sciences like Ayurveda, Physics, Chemistry, Mathematics, Aeronautics, Architecture Archaeology, Indology, Manuscriptology, Astrology, Astronomy, Phonetics, etc, as well as Social Sciences like Logic, Political Science, Economics and Dramatics is precisely expressed in Sanskrit. The golden heritage in the form of these books exhibits a developed state of citizenry in respective historical periods.

This is an articulatory language. Each sound has a separate symbol. So, Sanskrit language becomes easier to write as per

the pronunciation.

The renowned Sanskrit grammarian Panini wrote the grammar which has been acknowledged and acclaimed to be the most scientific grammar by linguists and scientists alike all over the world. In the article, 'Knowledge Representation in Artificial Intelligence (AI)' Mr. Briggs, a scientist at NASA has praised Panini "a computer scientist without any hardware". So, the sutras of Panini may initiate the learners to use the computer which is the key of Information and Technology era.

Similarly, the origin of concepts of co-operation, democracy globalization, environmental awareness, etc. is seen in ancient vedic hymns. e. g.

सहनावतु सह नौ भुनक्तु सह वीर्यं करवावहे ।

तेजस्विनावधीतमस्तु मा विद्विषावहे ।

or समानीव आकूतिः - Let our opinions be one and the same

समानानि हृदयानि वः - Let our hearts be one.

समानमस्तु वो मनः - Let our minds be one

In ancient times, when Sanskrit dramas were the only common source of entertainment for the entire society, Kalidas aptly said 'नाट्यं भिन्नरुचेर्जनस्य बहुधाट्येकं समाराधानम्', in his play मालविकाग्निमित्र

The dialectic stories (fables) from the books 'Mahabharat', 'Panbhatantra', 'Hitopadesh' are really very fascinating. The study of these stories help to develop the reasoning and logical thinking as well as interest in Sanskrit. With the help of the



knowledge of these stories, students can opt for good career in the field of animation.

छन्द मात्रा वृत्त are the characteristic features of Sanskrit poetry. The knowledge of meters like अनुष्टुभ्, आर्या etc. help the students to recite the verses properly. Its rhythm also conveys the sentiments and the expressions.

The noble characters from ancient scripture like sage Agastya, sage Vasishtha, eminent scholars like Varahamihir, Aryabhatta, the king Bhagiratha etc. would certainly provide an idol to the students.

The syllabi at the Secondary level as well as the graduate and postgraduate levels have been taken into consideration for the sake of proper integration. A serious thought has been given to the New Educational approach of Maharashtra State Board. Modern teaching aids would play an important role in the achievement of these objectives.

The knowledge of Sanskrit promotes the interdisciplinary studies e.g. Bhagvad Gita, the world famous book is the science of 'Personality Development', as well as "Stress management". So, the study of this book is essential in the study of Psychology, Management etc, Kautilya Arthshastra and Political Science, Leelavati and Mathematics.

Moreover, the Study of Sanskrit Literature helps to broaden the outlook of the learners.

### General Objectives

#### To enable the students to

1. understand the basic structure of Sanskrit grammar.
2. speak simple sentences using proper intonation
3. add to their vocabulary and modes of

expressions in their mother tongue with the help of the knowledge of Sanskrit.

4. understand simple passages in Sanskrit
5. answer the questions in Sanskrit orally.
6. read and recite Sanskrit shlokas and stotras fluently
7. participate in different cultural programmes in Sanskrit
8. translate the Sanskrit passage into their mother tongue
9. know the terminology of Indian languages such as Marathi, Hindi also of Maths, Science and Social Science.
10. enrich their Sanskrit vocabulary.
11. develop skills in reading aloud Sanskrit passages fluently with proper articulation, intonation, pronunciation and understanding.
12. acquire skills in writing short compositions, passages and stories
13. develop more interest in Sanskrit literature.
14. acquaint them with the cultural, spiritual and moral heritage of India.

### Specific Objectives

To enable the students to

1. take interest in listening Sanskrit songs, hymns and Subhashitas.
2. understand programmes on Radio, T.V.
3. speak grammatically correct sentences.
4. read various types of literature with correct pause.
5. use nouns, verbs, adjectives correctly.
6. write answer in correct Sanskrit.
7. translate unseen passages in Sanskrit into the medium offered.



8. collect Subhashitas, lyrics on particular subjects.
9. write correct compounds, sandhis and verb forms.

**Std. IX**

**1. Prose**

About 200 lines

One lesson should be in the form of a letter (formal or informal)

**2. Poetry**

About 120 lines. 60 lines for Recitation 120

One lesson should comprise of following meters

अनुष्टुभ, भुजंगप्रयात, आर्या

**3. Rapid Reading about 60 lines. (Prose and Poetry)**

**4. Grammar**

**A) Nouns**

भानु, धेनु, वधु, पितृ, मातृ, चन्द्रयस्, पयस्, मरुत्, जगत्

**B) Pronouns**

सर्व, अन्य, भवत्, इद् (All genders)

**C) Roots (A)**

The roots belonging to 1, 4, 6, 10 classes of परस्मैपद, आत्मनेपद

या (याति) 2 P. P. अस् (अस्ति) 2 P.P.

कृ. (करोति, कुरुते) 8 U.P.

Uses of roots with prefixes.

Present Tense, past Tense, Imperative mood- Potential mood.

**D) सन्धि**

१) स्वरसन्धि : गुण, वृद्धि, Revision यण्, अयादि

२) विसर्ग सन्धि

**E) Voice- Active, Passive, Impersonal (भावे प्रयोग)**

**F) Participles.**

1. Past Participles (क्त, क्तवतु)

2. Potential passive participles

कर्मणि विध्यर्थक धा. सा. विशेषण (य, तव्य, अनीयर्)

3. Gerunds त्वान्त, ल्यबन्त (क्त्वा, ल्यप्)

4. Infinitive of purpose तुन्त (तुन्)

**G) उपपदविभक्ति**

**H) Compounds समास - अव्ययीभाव, द्वंद्व, विभक्ति तत्पुरुष**

**I) Numbers (1 to 20, 30, 40, 50, 60, 70, 80, 90, 100)**

**J) Composition**

1. Answer in Sanskrit to the questions based on text or - Arrange the sentences chronologically

2. Translation of unseen passages into the medium offered (Prose, Poetry, Drama)

3. Translation of Sentences into Sanskrit

or - Writing a Paragraph of 5 lines in Sanskrit on a given topic

or Gap Story (around 10 gaps)

**Std. X**

**1. Prose**

About 200 lines

One lesson should be in the form of letter (formal or informal)

**2. Poetry**

About 120 lines. 60 lines for Recitation

One lesson should comprising of following meters



इन्द्रवज्रा, उपेन्द्रवज्रा, गीति

3. Rapid Reading 60 lines. (Prose and Poetry)

**4. Grammar**

1. Nouns - भगवत्, शशिन्, भाविन्, आत्मन्, नामन्, राजन्, कर्मन्, वाच्, दिश्
2. Pronouns - Revision of pronouns studied in VIII, IX Std. and अदस्
3. Roots (A) - ब्रू (२ U. P.), दा (३ U. P.), आप् (5 P. P.), शृ ( 5 P. P.), भुज् (7 U. P.), तन् (8 U. P.), ज्ञा, ग्रह ( 9 U. P.),

Present Tense, Imperfect past tense  
वर्तमान काळ (लट् लकार) प्रथम भूतकाळ (लङ् लकार)

Imperative Potential

आज्ञार्थ (लोट् लकार) विध्यर्थ (विधि लिङ्.)

Second future, perfect past tense

द्वितीय भविष्य काळ (लृट् लकार) परोक्ष भूतकाळ (लिट् लकार)

of the above mentioned roots

4. (Denominative) नामधातू
5. च्वि रूप,

6. तर - तम वाचक रूपे (Comparative and superlative degree)

7. Absolute Locative, सति सप्त्मी

8. Causal प्रयोजक (णिच्)

9. Numerals 1 to 20 (Cardinals and Ordinals) संख्या तथा क्रमवाचक

10. Present Participles वर्तमान कालवाचक धातुसाधित विशेषण (शत्, शानच्)

11. व्यंजनसंधी

12. Compounds – तत्पुरुष समास, बहुव्रीही (remaining types)

13. Uses of उपपदविभक्ति

**5. Composition**

1. Answer in Sanskrit to the questions based on text or Arrange the sentences chronologically
2. Translation of unseen passages into the medium offered (Prose, Poetry, Drama)
3. Translation of sentences into Sanskrit or - Writing a paragraph of about 5 lines in Sanskrit on a given topic or A gap story (8 gaps)





# Sanskrit

(Composite Language)

## Std. IX

### 1. Prose

About 150 lines

One lesson should be in the form of letter (formal or informal)

### 2. Poetry

About 70 lines (30 lines for Recitation)

### 3. Grammar

A) Nouns - भानु, धेनु, मधु, पितृ, मातृ, मरुत्, जगत् चन्द्रस्, पयस्

B) Pronouns- इदम् (In 3 genders)

C) Roots

(A) The roots belonging to 1, 4, 6, 10 classes of परस्मैपद, आत्मनेपद

Present Tense, Imperfect Past tense, Imperative mood, Potential mood

(B) Forms of या (याति) 2 P. P. अस् (अस्ति) 2 P. P. कृ. (करोति, कुरुते) 8 U. P.

D) Sandhis - स्वरसन्धि : यण्, अयादि, विसर्ग सन्धि

E) Voice - Active, Passive, Impersonal (only for recognition).

F) Participles -

1. Past Participles भूतकालवाचक धातुसाधित विशेषण (क्त and क्तवतु)

2. Potential Passive Participles (य, तव्य, अनीयर्)

## Indeclinables

1. Gerunds (क्त्वा, ल्यप्)

2. Infinitive of purpose तुमुन्त (तुमुन्)

G) Special uses of उपपदविभक्ति

H) Compounds - समास - अव्ययीभाव, द्वंद्व, तत्पुरुष

I) Composition -

1. Answer in Sanskrit to the questions based on text.

2. Arrange the sentences chronologically

3. Gap Story (around 10 gaps)

## Std. X

### 1. Prose

About 150 lines

### 2. Poetry

About 70 lines (30 lines for Recitation)

### 3. Grammar

#### 1. Nouns

भगवत्, शशिन्, भाविन्, आत्मन्, नामन्, राजन्, कर्मन्, वाच्, दिश्

2. Pronouns - Revision of pronouns studied in VIII, IX Std.

#### 3. Roots (A) -

ब्रू (2 U. P.), दा (3 U. P.), आप् (5 P. P.), शृ (5 P. P.), भुज् (7 U. P.), तन् (8 U. P.), ज्ञा, ग्रह (9 U. P.)

4. Present Tense वर्तमान काल (लट् लकार)  
Imperfect Past tense प्रथम भूतकाल (लङ् लकार)

Imperative mood आज्ञार्थ (लोट् लकार)



Potential mood विध्यर्थ (विधि लिङ्.)

Perfect past tense परोक्ष भूतकाल -  
(लिट् लकार)

Second future tense द्वितीय भविष्य काल  
(लृट् लकार)

5. Causal प्रयोजक (णिच्)
6. Numerals 1 to 20 (Cardinals and Ordinals) संख्या तथा क्रमवाचक
7. Absolute Locative सति सप्तमी

8. Revision of Participles, studied in  
Std IX. Present Participles वर्तमान  
कालवाचक धातुसाधित विशेषण (शतृ, शानच्)

9. व्यंजनसंधी -

10. Compounds – समास तत्पुरुष (All types)

11. Uses of उपपदविभक्ती

#### 4. Composition

1. Answer in Sanskrit to the questions based on text or Gap Story (around 10 gaps) or arrange the sentences chronically.







# Pali

(Second Language)

## Introduction

Pali is an ancient classical language. During the period of the Lord Buddha, It was the Lingua Indica. Later Pali spread to different parts of the world especially the far East. The principles enshrined in Pali are noble and lofty. Self-upliftment (अत्त-दीप-भव) is the universal message disseminated by the revered Buddha. The Pali language and literature contains a lot of historical source material which has encouraged the scholars all over the world to study further. The large number of stupas, viharas etc. built by the Emperor Ashoka, the beautiful caves at Ajanta and Ellora as well as a number of rock-inscriptions bear a testimony to the historical evidence this language contains. The tenets of Buddhism like world peace, universal brotherhood as ensconced in pali have attracted world scholars, statesmen like Albert Einstien, Vishwaratna Boddhisatva Dr. Babasaheb Ambedkar, Mr. & Mrs. Rhys Devid, Anagarik Dhammapal, Rahul Sanskrutyayan, Dharmanand Kaushambi, Admin, Laski, Dr Surendra Adnyat, Dr. L. R. Bali, Jawaharlal Nehru. Even today vipassana is extremely popular among the people. It gives mental peace, which is very rare these days. The teachings of Dhammapada are extremely useful to mankind. Thus the study of Pali ultimately helps the multi-dimentional development of individuals, societies and nations.

## Objectives

To enable the students to

1. know the accents and intonations of the words and to note the changes in the meanings there of.

2. read and listen to the passage with keen interest.
3. take interest in the study of pali literature. At Std. IX & X, the exphasis is on a classical language.
4. take interest in listening to blassibal prose and poetry in Pali.
5. know the meaning of the passages whenever read.
6. speak small sentences and then give a speech.
7. know about the writers and poets in Pali and the books written by them.
8. know the style and beauty of Pali language.
9. read the dramatic passages with proper pronunciation and dramatisation.
10. write and express their own thoughts through Pali.
11. recite and translate the passages from the Pali literature.
12. study the social, cultural, philosophical aspects of Indian like through Pali literature.
13. acquaint them with the spiritual and moral heritage of India.





### Std. IX

- 1) **Prose** : गज्ज - About 200 lines.
- 2) **Poetry** : पज्ज - About 120 lines (60 lines for Recitation)
- 3) **Rapid Reading** - About 50 lines.
- 4) **Grammar** : वर्ण, वर्ण परिवर्तन - Tense and Sandhi, Nouns Pronouns.
- 5) **General knowledge** – Pabbajja, Tisaran, Chiwar, Arhant, Chariya.
- 6) **Oral Skills** – Listening, Loud Reading, Speaking and Conversation.

### Std. X

- 1) **Prose** : गज्ज - About 200 lines.
- 2) **Poetry** : पज्ज - About 120 lines (60 lines for Recitation)
- 3) **Rapid Reading** : About 60 lines
- 4) **Grammar** : Tense, Sandhi, Case, Compounds
- 5) **General knowledge** : Vihar, Chaitya, Stupas, Short notes on Pali books Dhammapada. Suttanipat, Therigatha, Jataka, Caves- Ajantha & Ellora,
- 6) **Oral Skills** : Listening, loud reading, speaking and conversation.





# Pali

(Composite Language)

## Objectives

To enable the students to

1. listen carefully to passages in Pali
2. know the intonations
3. read out the subhashits loudly after the teacher's reading
4. read the passages properly on their own.
5. translate the passage into the mother tongue and the medium offered.
6. take interest in other extracts from Pali literature
7. write and express their own thoughts through Pali
8. study the Social, Cultural, philosophical aspects, Spiritual and moral heritage of India through Pali literature

### Std. IX

- 1) Prose : गज्ज - About 100 lines.
- 2) Poetry : पज्ज - About 50 lines
- 3) Grammar : वर्ण, वर्ण परिवर्तन, काळ, संधी
- 4) General knowledge – Pabbajja, Chariya, Tisaran
- 5) Oral Skills – Listening, loud reading, speaking and conversation.

### Std. X

- 1) Prose : गज्ज - About 100 lines.
- 2) Poetry : पज्ज - About 50 lines
- 3) Grammar : Tense, Sandhi, Case
- 4) General Knowledge : Vihar, Chaitya, Stupas, Ajantha, Ellora and Nasik (Trirashmi) Caves
- 5) **Oral Skills** : Listening, Loud Reading, Speaking and Conversation





# Ardhamagadhi

(Second Language)

## Introduction

Like Sanskrit, Ardhamagadhi is also an ancient classical language. The principles like non-violence, truth, non-thieving, etc. enshrined in Ardhamagadhi have attracted the world scholars. Especially the principles of truth and nonviolence were effectively used by Mahatma Gandhi for achieving Indian independence. The thoughts of Lord Mahavir still guide us. They are extremely useful for mankind. Hence the study of Ardhamagadhi is essential.

## Objectives

To enable students to

1. acquire fair knowledge of basic structure of the language and elements of grammar as per the syllabus.
2. enrich the vocabulary.
3. listen carefully and with understanding spoken passage read out to them, lectures talks etc. at a normal conversational speed.
4. comprehend different forms of literary passages (seen & unseen) in their various aspects, structures, significance development of main idea and writer's point of view.
5. develop ability to take notes of lectures, prepare report and summaries of conversations, lectures and talks with proper speed.
6. acquire skills in reading aloud seen and unseen passages fluently with proper articulation, intonation pronunciation and understanding.

7. acquire skills in reading aloud seen and unseen passages fluently with proper articulation, intonation, pronunciation and understanding.
8. develop ability to narrate experiences, participate in debates and discussions and express their views in correct language and in logical sequence.
9. develop ability to express ideas from the texts in their own language without sacrificing the content.
10. develop skills in writing composition like essay, letters, summaries of given passages in appropriate language and its idiom.
11. make proper use of dictionary and other reference material.
12. develop interest in reading literary passages and appreciating the beauty of language and ideas in them and
13. cultivate broad human and cultural outlook through literature read by them.

## Specific objectives

To enable the students to

1. listen to Subhashit, sloks, Geets, carefully
2. Know modern Indian Languages better
3. speak short sentences with proper pronunciation
4. read interesting stories in Ardhamagadhi
5. learn how to use idioms in his own sentences
6. enrich the vocabulary in Ardhamagadhi and



7. write a few sentences in Ardhamagadhi on any given subject.

**Std. IX**

**1. Prose**

250 lines for detail study

100 lines for Rapid Reading

1. Length of each lesson -30 lines maximum
2. Number of lessons 8 to 10

**2. Poetry**

100 lines for detail study

1. Length of each lesson -50 to 80 lines
2. Number of lessons 7 to 8

**3. Grammar**

- a. Declensions of nouns and pronouns  
**Nouns** : Masculine, Feminine, Common Gender
- b. Conjugation
- c. Present participles, potential/ Passive participles

**4. Project work**

- a. To collect idioms and proverbs.
- b. To recite idioms and proverbs.
- c. To enlist the special sentences-formations and easy sentences so as to help conversation and

recitation.

- d. To collect old pictures and coins.

**5. Oral Skill**

**Std. X**

**1. Prose**

220 lines for detail study

100 lines for Rapid Reading

**2. Poetry**

100 lines for detail study

**3. Grammar**

- a. Tenses- Present, Past, Future
- b. Active and Passive Voice
- c. Numerals : From 1 to 100
- d. Casual forms and their usage
- e. comparative and superlative degrees.

**4. Project work**

- a. To visit the prominent libraries.
- b. To arrange tours to the Jain, Buddha and Hindu temples.
- c. To read the rock inscriptions and to visit the cave.

**5. Oral/Conversational Skill**

Listening, Loud, Reading, Speaking and Conversation





# Ardhamagadhi

(Composite Language)

## Introduction

Like Sanskrit, Ardhamagadhi is also an ancient language. The principles like non-violence, truth, non thieving, etc. enshrined in Ardhamagadhi have attracted the world scholars. Especially the principles of truth and non-violence were effectively used by Mahtma Gandhi achieving Indian independence. The tenets of Lord Mahavir still guide us. They are extremely useful for mankind. He the study of Ardhamagadhi.

## Objectives

To enable students to-

1. acquire fair knowledge of basic structure of the language and elements of grammar as per syllabus,
2. enrich the vocabulary,
3. listen carefully and with understanding spoken passages read out of them, lectures, talks etc. at normal conversational speed,
4. comprehend different forms of literary passages (seen and unseen) in their various aspects, structures, significance, development of main idea and writer's point of view,
5. develop ability to take notes on lectures, prepare reports and summaries of conversations, lectures and talks with proper speed,
6. acquire skills in reading aloud seen and unseen passages fluently with proper articulation, intonation pronunciation and understanding,

7. acquire skill in reading silently story books, news papers, magazines and other prescribed text with proper speed and understanding,
8. develop ability to narrate experiences, participate in debates and discussions and express their views in correct language and in logical sequence,
9. develop ability to express ideas from the texts in their own language without sabrifibing the bontent,
10. develop skills in writing composition like essays, letters, summaries of given passages in appropriate language and its idiom,
11. make proper use of dictionary and other reference material,
12. develop interest in reading literary passages and appreciating the beauty of language and ideas in them and,
13. cultivate broad human and cultural outlook through literature read by them.

## Instruction

1. From the Ardhamagadhi syllabus of standard IX first seven prose lessons are for the complete course
2. First five poems are taken for the complete course
3. Grammar as per the syllabus

**N. B.** Text book for IX & X would be one each with Specific passages/lessons earmarked for Entire and composite course.



**Std. IX & X**

**1. Prose**

200 lines

Length of each lesson : 30 lines  
maximum

Number of lessons : 7

**2. Poetry**

50 lines for detail study

Length of each lesson : 15 to 20 lines

Number of lessons : 5

**3. Grammar**

a. Declaration of nouns and pronoun

1. Masculine Gender
2. Feminine Gender

**3. Common Gender**

- b. Conjugation
- c. Changes of conjunct consonants in Sanskrit
- d. Sandhi

**4. Project Work**

- a. To collect idios one proverbs
- b. To recite idios proverbs
- c. to enlist the special sentence formations and some easy sentences so as to help conversation and recite them
- d. To collect old pictures and coins

**5. Oral/Conversational Skill**

Listening, Loud Reading, Speaking and Conversation.





# Persian

(Second Language)

## Persian

Persian has a long history of its origin and development. In India Persian has served as a court language for more than six hundred years. During these years Persian language has produced a number of poets and writers irrespective of caste and religion from all over India and assimilated different thoughts.

Due to its long history of origin and development, Persian language is regarded as a classical language. But, like other languages of the world Persian language has also gone through transformation and therefore, the literature produced in Persian from the beginning of the twentieth century onwards is classified as modern Persian.

The vital role which the Persian language has played in India for, almost, more than six centuries has made the language, especially in Indian perspective quite important. Moreover, the multifaceted literature produced in India in Persian language reflects the love and affection with the poets and writers had for India. The poetry of Amir Khusrav, Faizi, Abu Talib Kaleem and writings of Abul Fazal are few examples to be quoted.

During centuries Persian language has left vast impact on Indian languages, foods, dresses, place names, fruits and Indian culture. Thus, in medieval India Persian language immensely helped in the growth of composite culture and common heritage and in modern times Persian language is serving as a bridge between India and Persian Speaking countries of the world. It is therefore that the study of Persian language and rich literature produced in it is unavoidable at Secondary and Higher Secondary levels.

## Objectives

To enable the Students to

- 1) have acquaintance with the structure of Persian language and elements of its grammar.
- 2) enrich the modern vocabulary in Persian
- 3) speak and express their own ideas in modern Persian
- 4) learn by heart quotations and verses in Persian
- 5) understand simple passages from Persian and appreciate linguistic beauty.

## Specific Objectives

To enable the students to

- 1) be aware of the close relationship of their mother tongue and regional language on one hand and the national language in particular.
- 2) arouse in them active interest in Persian in order to get an idea of the rich heritage of the medieval India and its tradition, wisdom and culture.
- 3) make them aware of the close relations between India and Persian speaking countries.
- 4) acquaint them with the culture and literary trends of classical Persian.
- 5) acquire knowledge about right to information and right to education.
- 6) create interest to make use of computer, internet and e-mail.
- 7) create awareness about the gender equality.



- 8) develop awareness of national integration and patriotism through Persian language.

### Std. IX

#### Text Book (Classical and modern)

50 pages of stories, dialogues, essays on festivals and seasons, poetical passages and letters etc (Excluding introductory notes, exercise and glossary etc)

**Prose** : 30 pages

**Poetry** : 60 to 70 couplets (Recitation of 20 verses and Reading of the text)

#### Composition :

- 1) Revision of the Alphabet and sentence making done in std VIII.
- 2) Written work in the form of simple sentences on familiar objects.
- 3) Translation of words, phrases and simple sentences from language of instructions like English, Urdu, Marathi, Gujarati or Hindi into Persian.
- 4) Translation and explanation of prose Passages and poetical portion from the text into the language of instruction.
- 5) Introduction of simple dialogue in Persian.

#### Grammar :

- 1) Revision of grammar done in Std VIII
- 2) Parts of speech
- 3) Kinds of Noun
- 4) Adjectives
- 5) Pronoun
- 6) Verb
- 7) Conjunction

- 8) Tense (Past, Present and Future)

#### Oral Skills

### Std. X

**Prose** : 30 pages

**Poetry** : 40 couplets

#### Composition

- 1) Story writing on a given outline or on a given subject in simple Persian.
- 3) Translation of simple passages from Persian into the language of instruction.
- 4) Essay of 7 to 10 simple sentences in Persian on familiar subject.
- 5) Explanation of textual passages (Prose and Poetical)
- 6) Precis writing based on the text
- 7) Simple letter writing to friends, relatives or parents

#### Grammar

- 1) Revision of grammar done in Std. IX
- 2) Adverb
- 3) Infinitive and Imperative from the text book
- 4) Voices
- 5) Gender
- 6) Kinds of Past, Present and future
- 7) Numeral
- 8) Conjunction
- 9) Figures of speech, Tashbeeh, Isteyara, Talmeeh and mubalegha

#### Oral Skills





**2.30**

# Persian

(Composite Language)

## Std. IX

**Prose** : 25 pages

**Poetry** : 35 couplets

### Composition :

- 1) Revision of Alphabet done in std VIII.
- 2) Written work in the form of simple sentences on familiar subjects.
- 3) Translation of simple Persian words and phrases into the medium of instruction.
- 4) Translation and explanation of prose passages and poetical portion from the text into the language of instruction.
- 5) Introduction of simple dialogue in Persian.

### Grammar

- 1) Revision of grammar done in Std VIII
- 2) Part of speech
- 3) Kinds of Noun
- 4) Adjectives
- 5) Pronoun
- 6) Verb
- 7) Conjunction
- 8) Tense (Past, Present, Future)

### Oral Skills

## Std. X

**Prose** : 30 pages

**Poetry** : 40 couplets

### Composition

- 1) Story writing on a given outline or on a given subject in simple Persian
- 2) Translation of simple passages from Persian into the language of instruction
- 3) Essay of 7 to 10 simple sentences in Persian on familiar subject
- 4) Explanation of textual passages (Prose and Poetical)
- 5) Precis writing based on the text
- 6) Simple letter writing to friends, relatives or parents

### Grammar :

- 1) Revision of grammar done in Std. IX
- 2) Adverb
- 3) Infinitive and Imperative from the text book
- 4) Voices
- 5) Gender
- 6) Numeral
- 7) Conjunction

### Oral Skills



# Arabic

(Second Language)

## Introduction

Arabic is regarded as a classical language. It is only because of a long history of its origin and rich literature which the language possesses. But, like other languages of the world, Arabic, through the ages, has also gone into transformation and has produced modern literature.

Due to close contacts between India and Arabic speaking countries in various fields especially in the field of trade, gradually Arabic language left a great impact on Indian languages and culture.

During medieval India Arabic was given very high regards in India and the language produced vast literature.

The influence of the Arabic language is not only confined to the Indian languages and culture but its impact can be seen in other areas also. And this very impact of the language helped in emergence of a common Indian heritage and culture.

On one hand the classical literature of the language helps a student of Arabic language in learning morale and ethics which are essential for survival of mankind in the era of globalization, on the other hand the modern Arabic language is regarded as a link language between India and Arabic speaking world.

To learn morale and ethics and to preserve common heritage and culture which the Arabic language has left, keeping in mind the importance of Arabic as a link language between India and Arabic speaking countries in modern times, the interest in learning the language is day by day increasing.

**Std. IX & X**

## Objectives

To enable the students to

1. have a fair acquaintance with the structure of the Arabic language and elements of its grammar.
2. enrich the vocabulary and the expression of the mother tongue with the help of Arabic knowledge.
3. speak and express their own ideas in modern Arabic.
4. learn by heart quotations, verses in Arabic for gainful pleasure and enlightenment.
5. understand simple passages from Arabic & appreciate their linguistic beauty.

## Specific Objectives

To enable the students to

1. Develop close relationship of Arabic with their mother tongue and regional language on the one hand, also with the national language in particular.
2. arouse in them active interest in Arabic in order to get an idea of the great heritage of the ancient and medieval India and its tradition, wisdom and culture.
3. make them aware of the contacts of India, which it had with Middle East Arab countries.
4. acquaint them with the culture and literary trends of ancient Arabia and modern Arab world.
5. provide opportunities to Indian students to visit foreign culture houses, consulates and embassies.



6. have thorough knowledge of right to education, right to information.
7. acquire ability to make use of computer, internet, on line education etc.
8. develop awareness of adverse effects of alcohol.
9. develop awareness of gender equality.
10. develop awareness of national integration and patriotism through Arabic language.

### Std. IX

**Text-Book** (Classical and Modern) 50 pages of stories, dialogue anecdotes and biographical sketches (excluding introductory notes exercises, glossary etc.).

**Prose** : 40 pages

**Poetry** : 40 verses

### Composition

- a) Revision of Alphabet, basic structure of sentences done in Std. VIII
- b) Composition of sentences on familiar objects.
- c) Translation from Arabic into the language of instruction.
- d) Paragraph writing on given theme/ topics in about ten sentences.
- e) Introduction and practice of Simple dialogue in Arabic.

### Grammar

- a) Numerals (21 to 50 in figures and in words)
- b) Definite article 'The'
- c) The Sun letters and the moon letters.
- d) Nouns, active participle and passive participle of Tri lettered verbs.
- e) Pronoun, Personal, Possessive.
- f) Gender
- g) The singular, the dual and the sound plural (masculine and feminine)
- h) The verb and the Tenses (Afaal-e-

saheehah) (Maroof-wa-majhool)

i) Adjective

### Oral Skills

Std. X

**Text-Book** (Classical and Modern)

60 pages.

Literary, biographical, descriptive conversational and historical excerpts (excluding introductory notes exercises and glossary etc.).

**Prose** : 40 pages

**Poetry** : 50 couplets

### Composition

- a) Translation of simple Arabic sentences into the language of instruction
- b) An essay of 10 lines on familiar objects
- c) Translation and explanation of passages Prose and Poetry from the Texts
- d) Answering the questions of general nature in Arabic and conversational Practice
- e) Paragraph writing in Arabic on common topics

### Grammar

- a) Numerals in figures and in words from 1 to 100
- b) Nouns, active participles and passive participles of Thalathi Mazed verbs
- c) Broken plurals
- d) Conjugation of verb, Active voice and Passive voice (Mu'tallah verbs)
- e) Imperatives and Prohibitives
- f) Types of sentences (affirmative, negative, interrogative)

### Oral Skills



# Arabic

(Composite Language)

## Std. IX

**Text Book** (Classical and modern) 30 pages of prose and poetry (excluding notes, exercises and glossary etc.).

### Prose

25 pages of modern/classical prose, dialogues anecdotes and biographical sketches.

**Poetry** : 15 couplets (Classical)

Recitation of 5 to 10 verses/lines/one story from the text-book.

### Composition

- Revision of Alphabet basic structure of sentences done in Std. VIII
- Reading and writing of simple Arabic text with the teacher's help
- Introduction of simple dialogues in Arabic.
- Translation of Arabic-Text into the language of instruction.

### Grammar

- Revision of Grammar done in Std. VIII
- Arabic numerals in figures and in words from 1 to 20
- Nouns active Participles and Passive Participles of triliteral verbs
- Pronouns - Personal, demonstrative and Possessive
- Number and Gender in Arabic
- Adjective
- Possessive compound
- Verbs in Arabic-conjugation of perfect and imperfect verbs

### Oral Skills

## Std. X

**Text Book** (Classical and modern) 30 pages of prose and poetry (excluding notes, exercises and glossary etc.).

### Prose

25 pages of modern/classical prose, dialogues anecdotes and biographical sketches etc.

**Poetry** : 15 couplets (Classical)

(Recitation of 5 to 10 verses/lines of a story from the text-book)

### Composition

- Translation of Prose and Poetry from Arabic into language of instruction
- Translation of simple sentences (seen vocabulary) from language of the instructions into Arabic
- Introduction of simple dialogues in Arabic

### Grammar

- Pronouns
- Adjectives and Possessive compound
- Verbs with conjugation
- Numerals figures from 1 to 100 and in words from 1 to 50
- Imperative and Prohibitive

### Oral Skills





# Avesta

(Second Language)

## Introduction

Avesta is one of the ancient Iranian languages in which the oldest Zoroastrian scriptures are composed while Pahlavi is one of the Middle - Iranian languages in which later Zoroastrian religious writings are composed.

Avesta and Pahlavi have great religious significance for the Parsis who immensely contributed to enrich Indian culture and civilization. The Zoroastrian scriptures are written in Avesta and Pahlavi and their study will provide opportunities to understand this ancient religion in its true perspective. However, very little change can be perceived in their present syllabus as their reach and scope is very much limited.

## Objectives

To enable students to

1. acquire knowledge of the basic structure of the language and the elements of grammar arising out of the Text.
2. enrich the vocabulary and diction of the language.
3. comprehend stories and literary passages from the Text as well as outside the text.
4. develop ability to take notes on lectures and talks relevant to the subject.
5. acquire skill in reading seen and unseen passages with proper articulation, pronunciations.
6. acquire skill in writing passages in the language with correct spelling and Punctuation.

7. make a proper use of dictionaries and other reference books, and
8. cultivate a broad, human and cultural outlook expressed through the literature read by them.

**Std. IX**

### 1. Text - book

20 pages of Reading - Writing - Translation

Havana - Gah - transliteration - Translation - Explanation - Grammar

(Reference : Avesta Grammar by K.S. Kanga and Avesta Text for University

Students I. published by The Trustees of the Parsi Panchayat, Bombay, 1954)

### 2. Composition

Translation of simple sentences from Avesta into English and English into Avesta.

### 3. Grammar

Alphabet with transcription, Sindhi Guna and Vridhhi, Roots and Formation of Nouns Degree of Adjectives, General Case Terminations. Declensions of Nouns and Adjectives, 10 Classes of Verbs, Conjugations and Non-Conjugational Tenses and Moods.

### 4. Oral/Conversational Skill.

**Std. X**

### 1. Text - book

Rapithwin gah and Atash - Niyayishn including poetic stanzas from Yasna 33. 12-14 and 34.4 - Transliteration - Translation - Explanation - Grammar.



(Reference : Avesta Grammar by K. S. Kanga and Avesta Text for University Students I. published by The Trustees of the Parsi Panchayat, Bombay, 1954)

## **2. Composition**

Translation of simple sentences from Avesta into English and English into Avesta.

## **3. Grammar**

Revision of grammar portion studied into Standard IX.

Numeral - Pronouns - Participles  
Derivative Verbs - Prepositions -  
Prefixes and Suffixes - Adverbs.

## **4. Oral/Conversational Skill**





# Pahlavi

(Second Language)

## Introduction

Avesta is one of the ancient Iranian languages in which the oldest Zoroastrian scriptures are composed while Pahlavi is one of the Middle - Iranian languages in which later Zoroastrian religious writings are composed.

Avesta and Pahlavi have great religious significance for the Parsis who immensely contributed to enrich Indian culture and civilization. The Zoroastrian scriptures are written in Avesta and Pahlavi and their study will provide opportunities to understand this ancient religion in its true perspective. However, very little change can be perceived in their present syllabus as their reach and scope is very much limited.

## Objectives

To enable students to -

1. acquire knowledge of the basic structure of the language and the elements of grammar arising out of the Text.
2. enrich the vocabulary and diction of the language.
3. comprehend stories and literary passages from the Text as well as outside the text.
4. develop ability to take notes on lectures and talks relevant to the subject.
5. acquire skill in reading seen and unseen passages with proper articulation, pronunciations.
6. acquire skill in writing passages in the language with correct spelling and Punctuation.
7. make a proper use of dictionaries and other reference books, and cultivate a board, human and cultural outlook expressed through the literature read by them.

## Std. IX

### 1. Text - book

20 pages of Reading - Writing - Translation

The Pahlave Karnamagei Artaxir papakan by D.P. Sanjana, Bombay, 1896. - Chapter I.

### 2. Composition

Translation of simple sentences from Pahlavi into English and English into Pahlavi.

### 3. Grammar

Alphabet with transcription, joining of letters - Nouns - Pronouns - Adjectives - Prepositions - Prefixes and Suffixes - Verbs (Perteritc and Present.)

### 4. Oral/Conversational Skill

## Std. X

### 1. Text - book

The Pahlavi Karnamagei Artaxir papakan by D. P. Sanjana, Bombay, 1896. - Chapters 2.4.

(Reference : A Middle-Persian Grammar by C. Salimann translated from German by L. BOGDANOV, Bombay, 1930)

### 2. Composition

Translation of simple sentences from Pahlavi into English and Pahlavi into Avesta.

### 3. Grammar

Revision of grammar portion studied into Standard IX. Cardinal and Ordinal Numerals - Ideograms with Iranian equivalents.

### 4. Oral/Conversational Skill





## Modern Foreign Languages **French**

(Second Language)

### Introduction

The world of the 21st century has shrunk to become a global village and the individual, a global citizen, Interdependence amongst nations is an inevitable fact and exposure to foreign cultures the need of the hour in order to promote international understanding and co-operation.

Given the scenario, the knowledge of a foreign language becomes a handy tool for communication. The study of a foreign language by itself or coupled with other specialization viz. pure sciences, engineering, commerce,

social sciences etc. is a major asset for any individual. Besides offering myriad job opportunities in traditional areas like industry, trade and commerce, foreign and tourism, cinema, sports and cultural exchanges.

At a more personal level, the study of a foreign language provides the individual an unique opportunity to look at the world beyond his, to learn about other cultures even as he presents his own to others. In the process, he imbibes the good points from other cultures and introspects on his own, thus enhancing the learning process. Above all, the study of a foreign language and the civilization of its people give the young mind an opportunity to dream.

"I do not want my house to be walled in on all sides and my windows to be stuffed. I want cultures of all lands to be blown about my house as freely as possible. But refuse to be blown off my feet by any." - M. K. Gandhi.

### Objectives

The major Objectives of teaching foreign language is to make students aware of a foreign culture and its people in order to promote international understanding and harmony by acquiring the necessary communication skills in the foreign language.

#### General Objectives

To enable the students to

1. acquire basic knowledge of the vocabulary and grammatical structures in the foreign language.
2. understand the foreign language as it is spoken.
3. speak the foreign language with confidence in simple day to day situations.
4. comprehend simple written texts.
5. write in simple and reasonable correct sentences in the foreign language.
6. acquire the necessary communication skills which may require for day to day social interaction.
7. develop his/her personality and self-confidence by inculcating a sense of universal values like punctuality,, cleanliness and respect for law and order.

#### Specific Objectives

Listening skills

To enable the students to

1. distinguish sounds of the foreign language.
2. listen for a global understanding so as





to able to give main points.

3. take dictation in a foreign language.
4. understand conversations in simple, familiar, day to day situations.
5. listen to and understand a telephonic conversation.
6. understand the nuances conveyed through stress and intonation.

### Speaking Skills

To enable the students to -

1. Pronounce words correctly, in the foreign language.
2. make meaningful use of words, phrases and sentences in context.
3. produce simple statements, questions, commands and requests.
4. express his/her ideas coherently and logically in simple sentences.
5. orally answer questions set on simple texts.
6. narrate personal experiences incidents, and stories in brief.
7. describe a situation or to describe a picture.
8. converse appropriately in formal and informal contexts.
9. sing songs in the foreign language.

### Reading Skills

To enable the students to

1. read aloud, with correct pronunciations, stress and intonation.
2. read aloud, at an appropriate pace and with pauses, showing awareness of Punctuation.
3. read aloud seen short texts and poems with appropriate rhythm.

4. read silently, with reasonable speed depending on the text.
5. read text silently for overall understanding (skimming) and for finding & Specific information.
6. deduce the meaning of words, phrases with the help of context.
7. read notices, advertisements, news headlines & road signs etc.
8. learn to club or group sentences into appropriate sense groups/grammatical groups.
9. learn to use a dictionary and reference material.
10. ultimately to read for pleasure and knowledge.

### Writing Skill

To enable the student to

1. master the art of writing including the use of Punctuation marks, capital letters and spellings
2. write grammatically acceptable and situationally appropriate forms of the foreign language.
3. write answers to question based on the text or reading material as well as personal response questions.
4. frame statements, questions, commands and requests for their appropriate use in different contexts.
5. develop a paragraph on a given subject taking into account coherence, logical sequences and connective devices.
6. write informal letters, e-mails with the help of given points.
7. write essays, compositions with the help of guidelines.
8. describe a situation and events with the help of given guidelines.



9. fill up registration/application forms in French.

Weightage to be given to the different skills in Std. IX & X

1. Reading and Comprehension Skills 30%
2. Writing Skill 30%
3. Translation Skill 20%
4. Oral Skill 20%

(Includes listening comprehension writing as in dictation, reading & speaking skills)

### Std. IX

#### Course book : PANORAMA

1. Prose  
Lessons 1-8 pages 76
2. Grammar
  - (a) Articles : Indefinite, Definite, Partitive
  - (b) Prepositions
  - (b) Verbs: Regular and Irregular  
Reflexive and Non-Reflexive  
Tenses : Present, Perfect (Passe Compose), Imperfect

Immediate Future

Recent Past

Partitive Articles

- (d) Adjectives-Qualifying, Numerical, Demonstrative and Possessive
- (e) Pronouns-Subject
- (f) Nouns

### Std. X

#### Course Book : PANORAMA

1. Prose  
Lessons 9 - 16 (Up to page 153)
2. Grammar  
Revisions of grammar done in Std.IX
  - a) Verbs Future Tense
  - b) Adjectives : Qualifying, Interrogative, Comparative and Superlative Degree Demonstrative, Possessive
  - c) Pronouns - Direct, Indirect Object, Emphatic, Relative, Demonstrative, Indefinite, En, Y.
  - d) Adverbs





# French

(Composite Language)

## Introduction

The world in the 21st Century has become a global village. Young Indian professionals are fanning out across the globe for taking up assignments in different fields, be it finance, engineering or research in pure sciences. Whereas, earlier on the exodus was mainly to the UK and the USA, today, south America, Europe, Japan, China and the Far-East are also popular destinations. Today, even those who do not venture overseas need to know a foreign language in view of the lucrative jobs opportunities offered by Call centers and BPO's. In this context, the role of foreign languages for the purpose of communication cannot be overemphasized. The learning of foreign languages therefore assumes great importance. What better way than to 'catch them young' as is being done in the case of English language teaching. Exposure of foreign languages at an early age helps the student develop an understanding of a foreign culture, the good points of which can be adapted and inculcated in one's own life and approach to problems. It helps the youngster to reappraise his/her own perspectives in the global context. Learning of a foreign language at an early age facilitates the acquisition of language skills e.g. students pick up the right accent at an early age with minimal interference from the mother tongue.

## Objectives

To enable the students to

1. acquire a basic knowledge of the

vocabulary and grammatical structures in the foreign language.

2. understand the foreign language as it is spoken.
3. comprehend simple written texts.
4. write in simple and reasonable correct sentences in the foreign language.
5. acquire the necessary communication skill which they may require for day to day social interaction.
6. develop his/her personality and self-confidence by inculcating a sense of universal values like punctuality,, cleanliness and respect for law and order.

## Specific Objectives

Listening Skills

To enable the student to

1. distinguish sounds of the foreign language.
2. take dictation of words in a foreign language.
3. follow simple texts read aloud so as to answer simple questions set on them.
4. understand conversation in simple, familiar, situations.
5. listen and understand simple pre-recorded cassettes.

## Speaking Skills

To enable the student to

1. pronounce words correctly in the foreign language.



2. make meaningful use of words, phrases and sentences in context.
3. produce simple statements, questions, commands and requests.
4. express his/her ideas coherently and logically in simple sentences.
5. answer oral questions set on simple texts.
6. sing songs in the foreign language.

### Reading Skills

To enable the students to

1. read aloud with correct pronunciation, stress and intonation.
2. read aloud at appropriate pace and with appropriate pauses showing awareness of punctuation.
3. read aloud short texts, poems with appropriate rhythm.
4. read silently with reasonable speed, depending on the text.
5. learn to use dictionary & reference material.

### Writing Skills

To enable the students to

1. master the mechanics of writing including the use of punctuation marks, capital letters and spellings.
2. write grammatically acceptable and situationally appropriate forms of English.
3. write answer to questions on textual/non textual reading material.
4. frame statements, questions, commands and requests for their appropriate use in different contexts.

### Vocabulary

Development of vocabulary is

important in language learning. Learners need to understand meanings of words with the help of context and to express themselves in that language. The textbooks and other material will offer necessary guidance in this regard. Learners should be taught situation based vocabulary so that they can learn and apply it in real life situations.

### Weightage to be given to the different aspects of the syllabus in Std. IX & X (Composite)

1. Writing Skill	30%
2. Translation Skill	10%
3. Grammar and Vocabulary	40%
4. Oral Skills	20%

### Std. IX

### Course Book

“Le Francais, c’ets un Atout!”

1. **Prose**  
Approximately 82 Pages
2. **Composition**
  - (a) Translation from French into English
  - (b) Short, guided essay of 10 lines
3. **Grammar**
  - (a) Nouns- Plural and Feminine
  - (b) Pronouns- Identify direct object  
Replace direct Object  
Emphatic Pronouns
  - (c) Adjective - Interrogative
  - (d) Verb - Regular, Irregular, Reflexive
  - (e) Prepositions
  - (f) Tenses - Immediate Future, Recent Past, Perfect (Pass Compose)
  - (g) Degree of Comparison - Comparative and Superlative



**Note :** Any other grammar that may occur in the prescribed text book.

**Std. X**

**Course Book : yet to be written**

1. **Prose**

Approximately 82 pages

2. **Compositions**

(a) Translation of French into English

(b) Short guided essay of 10 lines or informal letter writing of 10 lines.

3. **Grammar**

Revision of grammar in Std. IX

(a) Nouns - Plural and Feminine.

(b) Pronouns - Identity indirect object

Replace indirect objects

(c) Verbs - regular and Irregular

(d) Tenses - Revision of IX Std. Present, Immediate Future, Recent, Past. Perfect (Pass Compose with "avoir of irregular verbs only)

Perfect : (Passe compose with 'etre except reflexive verbs)

(e) Expression of negative

**Note :** Any other grammar the may occur in the prescribed text book.





# German

(Second Language)

## Introduction

The world of the 21st century has shrunk to become a 'global village' and the individual, a 'global citizen.' Interdependence amongst nations is an inevitable fact and exposure to foreign cultures the need of the hour, in order to promote international understanding and co-operation.

Given this scenario, the knowledge of a foreign language becomes a handy tool for communication. The study of a foreign language by itself or coupled with other specializations viz. pure sciences, engineering, commerce, social sciences etc, is a major asset for any individual. Besides offering myriad job opportunities in traditional areas like industry, trade and commerce, foreign services, journalism, etc. it opens new vistas in the areas of travel and tourism, cinema, sports and cultural exchanges.

At a more personal level, the study of a foreign language provides the individual an unique opportunity to look at the world beyond his/her, to learn about other cultures even as he/she presents his/her own to others. In the process, he/she imbibes the good points from other cultures and introspects on his/her own, thus enhancing the learning process. Above all, the study of a foreign language and the civilization of its people give the young mind an opportunity to dream.

"I do not want my house to be walled in on all sides and my windows to be stuffed. I want cultures of all lands to be blown about my house as freely as possible. But refuse to be blown off my feet by any." - M. K. Gandhi.

## Objectives

The major Objective of teaching a foreign language is to make students aware of a foreign culture and its people in order to promote international understanding and harmony by acquiring the necessary communication skills in the foreign language.

To enable the students to

1. acquire a basic knowledge of the vocabulary and grammatical structures in the foreign language.
2. understand the foreign language as it is spoken.
3. speak the foreign language with confidence in simple day to day situations.
4. comprehend simple written texts.
5. write in simple reasonably correct sentences in the foreign language.
6. acquire the necessary communication skills which they may require for day to day social interaction.
7. develop his/her personality and self-confidence by inculcating a sense of universal values like punctuality,, cleanliness and respect for law and order.
8. read, analyse and translate simple research texts.

## Specific Objectives

### Listening Skills

To enable the students to

1. distinguish sounds of the foreign language.



2. maintain his/her attention for a reasonable length of time.
3. listen for global understanding so as to be able to identify main points.
4. take dictation in a foreign language.
5. follow simple texts, read aloud so as to answer simple questions set on them.
6. understand conversation in simple, familiar day to day situations.
7. listen to and understand simple texts on the Cassette/CD.
8. listen to and understand a telephonic conversation.
9. understand the nuances conveyed through stress and intonation.

### **Speaking Skills**

#### **To enable the students to**

1. pronounce words correctly in the foreign language.
2. make meaningful use of words, phrases and sentences in context.
3. produce simple statements, questions, commands and requests.
4. express his/her ideas coherently and logically in simple sentences.
5. answer questions on simple texts orally.
6. narrate personal experiences, incidents and stories in brief.
7. describe a situation or to describe a picture.
8. converse appropriately in formal and informal contexts.
9. sing songs in the foreign language.

### **Reading Skills**

#### **To enable the students to**

1. read aloud, with correct pronunciation, stress and intonation.

2. read aloud, at an appropriate pace and with pauses, showing awareness of Punctuation.
3. read aloud, short texts, poems with appropriate rhythm.
4. read silently with reasonable speed depending on the text.
5. read texts silently for overall understanding (skimming) and for finding Specific information.
6. deduce the meaning of words, phrases with the help of the context.
7. read notices, advertisements, news headlines and road signs etc.
8. learn to club or group sentences into appropriate sense groups/grammatical groups.
9. learn to use a dictionary and reference material.
10. and finally to be able to read for pleasure, knowledge or research.

### **Writing Skills**

#### **To enable the students to**

1. master the art of writing including the use of Punctuation marks, capital letters and spellings.
2. write grammatically acceptable and situationally appropriate forms of the foreign language.
3. write answers to questions based on the texts or reading material as well as to personal response questions.
4. frame statements, questions, commands and requests for their appropriate use in different contexts.
5. develop a paragraph on a given subject taking into account coherence, logical sequence and connective devices.





6. write informal letters with the help of given points.
7. develop a story with the help of given outlines/ points.
8. write essays, compositions with the help of guidelines.
9. describe a situation and events with the help of given guidelines.
10. write a short conversation with the help of given guidelines.
11. answer questions based on charts, timetables, maps etc.
12. fill up registration/ application form in a foreign language.

### Std. IX

#### Course Book- Lernziel

##### Lessons from 1 to 7

#### 1. Prose

about 60 pages

#### 2. Items of Grammar and Syntax

- (a) Articles : Indefinite, Definite
- (b) Prepositions
- (c) Verbs
  - (i) Regular and Irregular
  - (ii) Reflexive and Non-Reflexive
  - (iii) auxiliary verbs
- (d) Adjectives- Qualitative, Numerical, Demonstrative and Possessive
- (e) Pronouns - nominative, accusative and dative
- (f) Tenses : Present, Perfect.

**Note :** in addition to this, grammar based on the prescribed texts.

#### 3. Oral/Conversational Skill

### Std.X

#### Course Book : Lernziel

##### Lesson 8 to 15

#### 1. Prose

60 pages (approximately)

#### 2. Items of Grammar and Syntax

- a. Articles : Definite and indefinite
- b. Prepositions : Governing accusative, dative and governing both
- c. Verbs
  - i. Auxiliary Modal Verbs
  - ii. Weak, strong, mixed verbs
  - iii. Simple and compound verbs
  - iv. Impersonal verbs
- d. Adjectives : Qualitative, Numerical, Demonstrative and Possessive
- e. Pronoun : Nominative, Accusative and Dative
- f. Simple and compound sentence
- g. Tenses : Present, Perfect, Past tense
- h. Cases : Accusative, Dative and Genitive

**Note :** In addition to this grammar based on the prescribed texts.

#### 3. Oral/Conversational Skills







2.38

# German

(Composite Language)

## Std. IX

### Course Book

1. **Verbs**
  - a. Regular verbs
  - b. Auxiliary verbs
  - c. Weak, strong, mixed verbs
2. **Nouns**
  - a. Cases : Nominative, Accusative, Dative
  - b. Declension of personal pronouns : in three bases (Nominative, Accusative, and Dative).
  - c. Imperative mood
3. **Prepositions**
  - a. Governing accusative only
  - b. Governing dative only
  - c. Governing sometimes accusative & sometimes dative
4. **Past Tense (Sein and haben)**

## Std. X

All grammar item covered in Std. IX

1. **Verbs** : Conjugation of verbs
  - i. Regular verbs
  - ii. Auxiliary verbs
  - iii. Weak, strong, mixed verbs
  - iv. Compound verbs both separable and inseparable verbs
  - v. Reflexive Verbs
2. Present Perfect Tense
3. **Prepositions** : Governing, Accusative, Dative
4. **Cases** : Nominative, Accusative, Dative and Genitive
5. Degrees

**Note** : Any other Grammar that may occur in the prescribed textbook.





# Russian

(Second Language)

## Introduction

The world in the 21st Century has become a global village. Young Indian professionals are fanning out across the globe for taking up assignments in different fields, be it finance, engineering or research in pure sciences. Whereas, earlier the exodus was mainly to the UK and the USA, today, South America, Europe, Japan, China and the Far-East are also popular destinations. Today, even those who do not venture overseas need to know a foreign language in view of the lucrative job opportunities offered by Call centers and BPOs. In the context, the role of foreign languages for the purpose of communication cannot be overemphasized. The learning of foreign languages therefore assumes great importance. What better way than to “Catch them young” as is being done in the case of English language teaching. Exposure to foreign languages at an early age helps the student develop an understanding of a foreign culture, the good points of which can be adapted and inculcated in one’s own life and approach to problems. It helps the youngster to reappraise his/her own perspectives in the global context. Learning of a foreign language at an early age facilitates the acquisition of language skills e.g. students pick up the right accent at an early age with minimal interference from the mother tongue.

## Objectives

The major Objective of teaching a foreign language is to make students aware of a foreign culture & its people in order to promote international understanding &

harmony by acquiring the necessary communication skills in foreign language.

To enable the students to

1. acquire basic knowledge of the vocabulary & grammatical structures in the foreign language.
2. understand the foreign language as it is spoken.
3. speak the foreign language with confidence in simple day to day situations.
4. comprehend simple written texts
5. write simple reasonably correct sentences in the foreign language
6. acquire the necessary communication skills which they may require for day to day social interaction.
7. develop his/her personality & self confidence by inculcating a sense of universal values like punctuality,, cleanliness & respect for law & order.

## Specific Objectives

### Listening Skills

To enable the students to

1. distinguish sounds of the foreign language.
2. maintain his/her attention for a reasonable length of time.
3. take dictation in a foreign language.
4. follow simple texts, read aloud so as to answer simple questions set on them.
5. understand conversation in simple, familiar day to day situations.



6. listen to and understand simple texts on the Cassette/CD.
7. understand the nuances conveyed through stress and intonation.

### Speaking Skills

To enable the students to

1. Pronounce words correctly in the foreign language.
2. Make meaningful use of words, phrases and sentences in context.
3. Produce simple statements, questions, commands and requests.
4. Express his/her ideas coherently and logically in simple sentences.
5. Answer questions on simple texts orally.
6. Narrate personal experiences, incidents and stories in brief.
7. Describe a situation or to describe a picture.
8. Converse appropriately in formal and informal contexts.

### Reading Skills

To enable the students to

1. Read aloud, with correct pronunciation, stress and intonation.
2. Read aloud, at an appropriate pace and with pauses, showing awareness of Punctuation.
3. Read aloud, short texts, poems with appropriate rhythm.
4. Read silently with reasonable speed depending on the text.
5. Read texts silently for overall understanding (skimming) and for finding Specific information.
6. Read notices, advertisements, news headlines, road signs etc.

7. Learn to club or group sentences into appropriate sense groups/grammatical groups.
8. Learn to use a dictionary and reference material.

### Writing Skills

To enable the students to

1. master the art of writing including the use of Punctuation marks, capital letters and spellings.
2. write grammatically acceptable and situationally appropriate forms of the foreign language.
3. write answers to questions based on the texts or reading material as well as to personal response questions.
4. frame statements, questions, commands and requests for their appropriate use in different contexts.
5. develop a paragraph on a given subject taking into account coherence, logical sequence and connective devices.
6. write informal letters with the help of a given points.
7. develop a story with the help of given outlines/points.
8. write essays, compositions with the help of guidelines.
9. describe a situation and events with the of given guidelines.
10. answer questions based on charts, timetables, maps, etc.

**Std. IX**

### Text : Pages 50

1. Revision of covered topics.
2. Imperative mood and demonstrative pronouns.
3. Declension of noun in the Prepositional (Singular and Plural)



- and Accusative base (singular, plural with and without preposition)
4. Past tense of verbs.
  5. Reflexive verbs.
  6. Adjectives in Nominative base and their composition with adverb.

Recommended text book 'Russian' by V. N. Wagner and Y. G. Ovsienko.

7. Oral/Conversational skill.

**Std. X**

**Text : Pages 50**

1. Revision of covered topics.
2. Aspect of verbs.

3. Verbs on motion - idti and yekhat.
4. Formation of adjectives from nouns.
5. Reflexive verbs.
6. Use of conjunctions Kotoriy, Yesli in the subordinate clause and use of word.

**Recommended text book 'Russian' by V. N. Wagner and Y. G. Ovsienko.**

**Oral/Conversational skill.**





# Russian

(Composite Language)

## Introduction

The world in the 21<sup>st</sup> Century has become a global village. Young Indian Professionals are fanning out across the globe for taking up assignments in different fields, be it, finance, engineering or research in pure sciences. Whereas, earlier the exodus was mainly to the U.K. and USA, today South America, Europe, Japan, China and Far-East are also popular destinations. In this context, the role of foreign languages for the purpose of communication cannot be overemphasized. The learning of foreign languages therefore assumes great importance. What better way than to 'Catch them young' as is being done in the case of English language teaching. Exposure to foreign languages at an early age helps students develop an understanding of foreign culture, the good points of which can be adopted and inculcated in one's own life and one's approach to problems. It helps the youngster to reappraise his/her own perspectives in the global context. Learning of a foreign language at an early age facilitates the acquisition of language skills e.g. students pick up the right accent at an early age with minimal interference from the mother tongue.

## Objectives

The major objective of teaching foreign language is to make students aware of a foreign culture and its people in order to promote international understanding and harmony by acquiring the necessary communication skills in the foreign language.

To enable the students to –

1. acquire basic knowledge of the vocabulary & grammatical structures in the foreign language.
2. understand the foreign language as it is spoken.
3. speak the foreign language with confidence in simple day to day situations.
4. comprehend simple written texts
5. write simple reasonably correct sentences in the foreign language
6. acquire the necessary communication skills which they may require for day to day social interaction.
7. develop his/ her personality & self confidence by inculcating a sense of universal values like punctuality, cleanliness & respect for law & order.

## Specific Objectives

### Listening Skills

To enable the students to-

1. distinguish sounds of the foreign language.
2. maintain his/her attention for a reasonable length of time.166
3. take dictation in a foreign language.
4. follow simple texts, read aloud so as to answer simple questions set on them.
5. understand conversation in simple, familiar day to day situations.
6. listen to and understand simple texts on the cassette/CD.



7. understand the nuances conveyed through stress and intonation.

### Speaking Skills

To enable the students to-

1. Pronounce words correctly in the foreign language.
2. Make meaningful use of words, phrases and sentences in context.
3. Produce simple statements, questions, commands and requests.
4. Express his/her ideas coherently and logically in simple sentences.
5. Answer questions on simple texts orally.
6. Narrate personal experiences, incidents and stories in brief.
7. Describe a situation or to describe a picture.
8. Converse appropriately in formal and informal contexts.

### Reading Skills

To enable the students to-

1. Read aloud, with correct pronunciation, stress and intonation.
2. Read aloud, at an appropriate pace and with pauses, showing awareness of punctuation.
3. Read aloud, short texts, poems with appropriate rhythm.
4. Read silently with reasonable speed depending on the text.
5. Read texts silently for overall understanding (skimming) and for finding specific information.
6. Read notices, advertisements, news headlines, road signs etc.
7. Learn to club or group sentences into appropriate sense groups/ grammatical groups.

8. Learn to use a dictionary and reference material.

### Writing Skills

To enable the students to-

1. master the art of writing including the use of punctuation marks, capital letters and spellings.
2. write grammatically acceptable and situationally appropriate forms of the foreign language.
3. write answers to questions based on the texts or reading material as well as to personal response questions.
4. frame statements, questions, commands and requests for their appropriate use in different contexts.
5. develop a paragraph on a given subject taking into account coherence, logical sequence and connective devices.
6. write informal letters with the help of a given points.
7. develop a story with the help of given outlines/ points.
8. write essays, compositions with the help of guidelines.
9. describe a situation and events with the of given guidelines.
10. write a short note conversation with the help of given guidelines.
11. answer questions based on charts, timetables, maps etc.

### Std. IX

1. Introduction to Russian sounds and letters.
2. Word stress in Russian language.
3. Reduction of vowels.
4. Voicing and Devoicing of consonants.
5. Nouns in Russian Language.
6. Gender of Nouns



7. Plural Nouns
  8. Conjugation of verbs in the Present Tense.
  9. Pronouns: Personal, Possessive, Demonstrative.
  10. Exercise and Tests on topic covered.
- Recommended text books- Russian by V.N.Wagner. U.G.O.vsinko

Lessons No. 1 to 10

Oral/Conversational Skill

**Std. X**

1. Revision of Topics covered in Std. IX.
  2. Adjectives (Nominative case)
  3. Past Tense of verbs.
  4. Prepositional case to denote Location. (Nouns-singular & plural)
  5. Personal pronouns in the prepositional case.
  6. Word order in Russian
  7. Reflexive verbs and their usage
  8. Exercise and Tests on topic covered.
- Recommended text books- Russian by V.N.Wagner. Y.G.Dvsinko

Lessons No. 11 to 15

Oral/Conversational Skill

Suggested classroom activities

1. Projects
2. Models

3. Recitation of poems
4. Recitation of poems
5. Collection of new spaper articles related to the country- continent
6. Information from various sources (about the language) countries in which the language is spoken.

7. Visits- factories (collboration)

Institutes - Max Mueller Bhavan

Alliance Francaise

M.E.L. department University of Pune  
(Ranade Institute)

8. Use of a dictionary
9. Recipes
10. Story telling
11. Group-discussion
12. Elocution
13. Dialogue-Role play
14. Narrating jokes
15. Bring native- speakers it (whenever possible) and let the students hear the language, intonation, ask questions, convenes, etc
16. Give sites addresses to browse on Internet to find out more information

**Grammar.**





## Third Language

3.1

# English

### Background

This curriculum framework for the subject of English (Third Language) at Std. IX and X has been prepared bearing in mind the National Curriculum Framework and the State Curriculum Framework, the curriculums of English of the CBSE, the ISCE and different State Boards and the views/opinions expressed by teachers on the existing curriculum framework.

In view of the developments in the field of Information and Communication Technology the Board recommends increasing use of technology for effective implementation of the Curriculum of English. The new curriculum underscores the need of making education learner centered and of adopting the constructivist model of education. The learner, therefore, is expected to 'discover' and 'construct' his/her learning. Some of the other considerations have been as follows :

Increasing importance of English at the International and National level.

Increasing demand for English, not only as a source language (Library Language) but also as an important language of communication.

Introduction of English from Class I, with effect from June 2000, in all the Non-English medium schools in the State of Maharashtra.

The functional (communicative), literary (aesthetic) and cultural (integrative) needs of the learner.

The terminal and the non-terminal Objectives of teaching/learning

English at the Secondary level. (Some students may terminate their studies after Std. X. Others may pursue higher studies in different faculties).

### Objectives

The major objective of teaching English at the Secondary level is to consolidate and extend the language abilities already acquired. In the course of two years, students are expected to develop a broad-based conceptual understanding (cognition) of the idiom of English and to learn to make effective use of English in real life contexts (application).

### General Objectives

#### To enable the student to

1. Learn to use English appropriately.
2. Understand spoken English, used in and outside the school.
3. Speak with confidence using appropriate vocabulary, grammatical forms and acceptable pronunciation.
4. comprehend written texts in English (both textual and non-textual)
5. write in simple and acceptable/ reasonably correct English.
6. acquire the necessary communication skills required for their day to day social interaction.
7. cultivate a broad, human and cultural outlook.
8. Facilitate self-learning.





## **Specific Objectives**

### **Listening Skill**

#### **To enable the student to**

1. enjoy and appreciate various types of poems read aloud.
2. understand meanings of words, phrases and sentences in context.
3. guess meanings of new words and phrases.
4. understand statements, questions, commands, requests and such other sentences.
5. understand and respond appropriately to directive language, e.g. instructions, advice, requests and warning.
6. maintain his/her attention for a reasonable length of time.
7. listen for a global understanding so as to be able to give main points.
8. follow simple narrative, descriptive and such other prose texts read aloud, so as to answer questions set on them.
9. enjoy and appreciate stories, short plays and short narrations read out in the class.
10. take dictation keeping pace with the speed of the speaker.
11. understand and interpret spontaneous spoken discourse in familiar social situations.
12. listen with understanding news, commentaries, short speeches and such other programmes on Radio/T.V./Tapes/CDs, etc.
13. listen with understanding to telephonic conversation.
14. understand nuances conveyed through stress and intonation.

15. infer a speaker's attitude/intention and the message given in his speech.

### **Speaking Skill**

#### **To enable the student to**

1. enjoy reciting poems with appropriate rhythm.
2. make meaningful use of words, phrases and sentences in context.
3. use a variety of words and phrases in different contexts.
4. learn to speak fluently and intelligibly on a given topic for a reasonable period of time.
5. answer orally the questions set on narrative and descriptive passages.
6. produce simple statements, questions, commands and requests.
7. converse appropriately in formal and informal contexts.
8. express his/her ideas coherently and logically.
9. narrate events, stories and experiences in brief.
10. describe states and processes that he/she observes.
11. participate in discussions, debates and conversations.
12. use a variety of expressions for complimenting, requesting, apologizing, etc.

### **Reading Skill**

#### **To enable the student to**

1. read aloud effectively with correct pronunciation, stress and intonation.
2. read aloud with appropriate pace and pauses showing awareness of punctuation.



3. read aloud poems with appropriate rhythm.
4. read silently with reasonable speed, depending on the type of text.
5. read silently textual and non-textual material for overall/global understanding (skimming), for finding Specific information (scanning), for detailed understanding (intensive).
6. guess/predict appropriately while reading.
7. deduce the meaning of words, phrases with the help of context.
8. read informative material such as notices, advertisements, road signs and news headlines.
9. learn to chunk or group sentences into appropriate sense groups/grammatical groups.
10. learn to use a dictionary and such other reference material.
11. read to understand themes, ideas, emotions, expressed in the text and to respond appropriately.
12. understand logical sequence of sentences in the text.
13. read for pleasure extensively the texts within the range of his/her imagination.
4. write answers to questions on textual/ non-textual reading material
5. frame statements, questions, commands and requests for their appropriate use in different contexts.
6. develop a paragraph on a given theme considering coherence, logical sequence and connective devices.
7. write formal and informal letters with the help of given points.
8. develop a story with the help of given outline/points.
9. write short imaginary write ups e.g. personal essays, compositions with the help of guidelines.
10. write short reports based on interviews, events and talks.
11. describe states and processes with the help of given guidelines.
12. write a short conversation with the help of given guidelines.
13. transfer the information from nonverbal to verbal forms such as from tables, charts and maps to write-ups.
14. Fill in a variety of forms in given formats such as admission form and bio-data form.

### **Writing Skill**

#### **To enable the student to**

1. master the mechanics of writing including the use of Punctuation marks, capital letters and spellings.
2. write correctly, neatly and legibly with a reasonable speed.
3. write grammatically acceptable and situationally appropriate forms of English.

### **Vocabulary**

1. Consolidation and extension of vocabulary learnt in the previous classes (up to Std. VIII / IX).
2. Acquisition of vocabulary arising out of the prescribed texts.

Considering the importance of vocabulary in language learning, a systematic effort will be made to help students in the acquisition of vocabulary. The coursebooks and handbooks will offer the necessary



guidelines in this direction. A variety of tasks/activities will be included in the coursebooks (e.g. Dictionary entries, guessing meanings, finding appropriate words, matching exercises, synonyms and antonyms, word formation, etc.)

## Grammar

Grammar has an important role to play in the teaching and learning of English. However, the question is how should we present grammar in a classroom situation to facilitate the learning of English i.e. how can we help our students to learn to use their knowledge of grammar to use English effectively in a variety of situations. In view of this, the Board makes the following recommendations.

1. Grammar should not be taught for its own sake. Grammar is not an end in itself, it is a means to the use of language.
2. Grammar should be taught with reference to a context. Language is not used in a vacuum, it is used in situations. Isolated sentences should be avoided.
3. The focus has to be on the functional aspects of grammar and not on the formal ones.
4. Grammar affects meaning. Therefore, the teaching of grammatical meaning should be emphasized.
5. The study of grammar should lead to a discovery of rules. We should draw students attention to a variety of examples from the given text and expect them to deduct or infer the rules.
6. Practice plays an important role in the study of language. But mechanical practice is of no use. Meaningful practice, that is, practice combined with understanding should be encouraged.
7. We have to move from fluency to accuracy.
8. Activities/tasks for vocabulary and grammar should help students in developing their language skills.
9. The grammar of the learner's first language may be used for showing the similarities and differences between the two languages.

## Std IX

<b>a)</b>	<b>A Coursebook in English (English Reader)</b>
	<b><u>For Detailed Study</u></b>
<b>i)</b>	<b>Prose :</b> About 50 pages of literary and non-literary texts/passages (excluding notes, illustrations, tasks, etc.)
<b>ii)</b>	<b>Poetry :</b> About 100 lines.
	<b><u>Non-detailed study</u></b>
	A selection of literary texts: About 20 pages. (The coursebook will include reading texts for both : detailed study and non-detailed study.)
<b>b)</b>	<b>Grammar</b>



Sr. No.	Items Specification	
1	Revision of grammatical items studied up to Std VIII.	_____
2	The Sentence	Types i) Statements- Affirmatives, Negatives ii) Questions- 'Yes'/'No' questions
3.	The Tenses	i) Simple Present- Uses- universal truth, habitual activity, Permanent states, future reference. ii) Present Continuous- Uses- action in progress, temporary states, future. iii) Simple Past – Uses- habitual activity, single occurrence actions. iv) Past Continuous- Uses- actions in progress at a point of time in past.
4.	Articles	Uses of 'a', 'an', 'the'
5.	Prepositions	Different uses
6.	Reported	Speech Statements, questions, commands, requests, exclamations
7	Passive Voice	Statements, Questions, and Indirect objects.
8	Modal Auxiliaries	Can, may, might, etc.
9.	Non-finites	Infinitives and Participles
10	Degrees of Comparison	Identification and conversion
11.	Word formation	Interchange of word-forms (Nouns/Adjectives/Verbs/Adverbs)
12.	Punctuation	Different uses



<b>b)</b>	<b>Grammar</b>	<b>Std. X</b>
<b>Sr.No.</b>	<b>Items</b>	<b>Specification</b>
1	Revision of grammatical items studied up to Std IX.	_____
2.	The Sentence	Types i) Questions- 'Wh' word questions ii) Imperatives iii) Exclamations
3.	The Tenses	i) Present Perfect- Uses- action in the past having current relevance. ii) Present Perfect Continuous- Uses- actions continued from past to present. iii) Past Perfect and Past Perfect Continuous iv) Future with will/shall and 'going to'
4.	Articles	Uses of 'a', 'an', 'the'
5.	Prepositions	Different uses
6.	Reported Speech	Statements, questions, commands, requests, exclamations
7	Passive Voice	Statements, Questions, and Indirect objects.
8	Modal Auxiliaries	Can, may, might, etc.
9.	Non-finites	Infinitives and Participles
10	Degrees of Comparison	Identification and conversion
11.	Word formation	Interchange of word-forms (Nouns/Adjectives/Verbs/Adverbs)
12.	Punctuation	Different uses

### **Weightage to be given at Std. IX and X**

**The following weightage is to be given to the various aspects of the syllabus.**

1	Reading Skill (Textual and non-textual)	40%
2	Grammar	15%
3	Writing skill	25%
4	Oral test	20%



# Hindi

(Third Language)

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Syllabuses for standards IX and X will be the same as prescribed under Hindi Second Language.

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## INFORMATION COMMUNICATION TECHNOLOGY (ICT)

### INTRODUCTION

The emerging Information and Communication Technology (ICT) has become a strategic alternative for schools all over the world to enhance learning and deliver both quantity and quality programs for mass education. With globalization of Economy and information, as well as technological innovations, knowledge based economy and society, escalating demand for education the implementation of ICT helps in effective learning for all anytime anywhere.

ICT has great potentials such as expanding educational opportunities, increasing efficiency, enhancing quality of teaching and learning as well as facilitating skill formation, sustaining lifelong learning and advance community linkage.

### OBJECTIVES

1. Introduction to ICT and its necessity.
2. Study of ICT tools.
3. Effective use of ICT in continuous learning
4. Prepare students to make effective use of information and communication technology.
5. Make student familiar with ICT packages in science, mathematics and other areas.

### Structure

- ICT will be introduced as a subject at Std. IX and X as a compulsory independent subject of 50 marks.
- The medium of instruction will be

Marathi and English.

- ICT has to be taught for 60 periods yearly (40 periods theory and 20 periods for practicals) 2 periods per week.
- The subject will be taught by any subject teacher who has undergone a short training in ICT subject.

### List of Practicals (Std. IX)

Effective use of ICT in continuous learning

1. Familiarisation with basic operational parts of PC based desktop computer.
2. Identification of Computer Systems and understanding LAB setup.
3. Creation of a Simple document using Word processor 2 pages with paragraphs, use of various text formatting techniques.
4. Creation of a spreadsheet using a spreadsheet program.
5. Creation of Charts from spreadsheet data
6. Creation of simple presentation
7. Introduction to Web Browser and browsing web sites.
8. Introduction to web search.
9. Introduction to locating places using Free mapping services available over the internet.
10. Studying the use of Translation software available online such as Google Translate to convert Simple English to Hindi/Marathi.
11. Downloading and saving Web page content and images as files.
12. Introduction to Web Based e-mail



Standard IX		
Topic No.	Topic	Periods
1	Concepts of ICT, Necessity of ICT	8
2	ICT Tools a. Computer b. Cellular phones c. Radio and TV d. Internet	4
3	ICT Soft Tools word processing	4
4	ICT Soft Tools Spreadsheet	4
5	ICT Soft Tools Presentation	4
6	Introduction to Internet a. World Wide Web b. e-mail c. Instant Messaging and Chat	6
7	ICT in Languages, Social Sciences and Arts	8
8	Morals and Ethics	2

access opening new e-mail account and web-based access to the same.

### Standard X

- 1 Potential of ICT
- 2 Internet Applications
  - a. Blogs, Forums
  - b. VOIP
  - c. E-Commerce
  - d. E-Governance
  - e. E-maps – Maps and navigation
- 3 ICT in Science, Mathematics, Modeling

- and Simulation
- 4 ICT in day-to-day life
- 5 Information in Indian Languages
  - a. Unicode
  - b. Generating information in Indian Languages
  - c. Translation/Transliteration
- 6 Use of Geogebra in understanding Mathematics





### List of Practical (Std. X)

1. Introduction to e-mail access using e-mail client software such as Outlook or Windows Mail.
  2. Introduction to Instant Messaging using MSN Messenger/Yahoo! Messenger.
  3. Creation of a simple document using Word processor in an Indian Language (Marathi or Hindi) making use of an Unicode font.
  4. Creation of presentation using sounds and animation.
  5. Creation of spreadsheet making use of values linked using formulae.
  6. Introduction to Chat.
  7. Introduction to video conferencing using Skype
  8. Creation of short audiovisual content (not exceeding 2 minutes; using webcam or digital camera with video recording facility. Copying and viewing the same on a PC.
  9. Uploading a short video to a free online streaming video service such as YouTube.
  10. Practical 1 on Geogebra.
  11. Practical 2 on Geogebra.
  12. Practical 3 on Geogebra.
- 





## 5

# Mathematics

## Std IX and X

### Introduction

Mathematics is the language of all sciences. Mathematics as a subject at the secondary level has great importance in a progressive country like India as it develops various life skills. The challenges caused by tremendous growth in the population, globalization, pollution, competitions between countries, natural disasters emphasise the need to develop the curriculum in Mathematics at the secondary level. Knowledge of the subject and skills acquired while learning-Mathematics helps in developing the ability to execute, manage, plan with precision. This could be effectively inculcated at the secondary level and hence Mathematics has got the pivotal place in the scheme of studies of secondary education.

Mathematics helps to develop decision making which is applicable to real life situations. In addition, it helps enormously in the development of the other disciplines which involves analysis, reasoning and adoption of innovative ideas. A study of the different applications of Mathematics at secondary level in various fields like science, geography, economics, social sciences etc. gives the student a comprehensive and global perspective.

The curriculum in the subject of Mathematics has undergone changes from time to time in accordance with the growth of the subject to address the emerging needs of the society. The proposed syllabus for the state of Maharashtra has been designed by adopting all units and subunits from the respective syllabus of NCF 2005. The proposed curriculum includes the . study of Number system, Algebra, Geometry, Trigonometry, Mensuration, Statistics, Graphs and Co-ordinate geometry.

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

### Objectives

#### To enable the students

1. to consolidate the mathematical knowledge and skills acquired at the upper primary stage.
2. to acquire knowledge and understanding of mathematical terms, symbols, concepts principles and processes and proofs.
3. to develop the ability to apply mathematical knowledge to solve problems in real life situations.
4. to develop analytical, logical thinking and problem solving abilities of students.
5. to develop skills in drawing geometrical figures, diagrams, graphs, charts etc.
6. to identify the inter relationship between different parts of problems and draw logical conclusions.
7. to develop an interest in students to study mathematics as a discipline.
8. to develop awareness of the need for national integration, protection of environment, by nuclear family removal of social barriers, elimination of sex bias.
9. to develop reverence and respect towards great mathematicians particularly towards Indian Mathematicians.



## Std. IX

# Algebra

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### 1. Sets :

- Introduction
- Methods of writing sets
- Types of sets
- Subset - Proper, Improper subset
- Super set
- Universal set
- Venn diagrams
- Operations on sets
- Relations between various operations
- Number of elements in the set and related results.

### 2. Real Numbers :

- Revision of natural numbers, integers, rational numbers and irrational numbers
- Existence of irrational numbers and their representations on the number line
- Every real number is represented by a unique point on the number line and conversely, every point on the number line represents a unique real number
- Properties of real numbers
- Definition of  $n$ th root of a real number
- Surds - Definition
- Forms of surds
- Operations and Laws of surds
- Rationalization of Surds
- Absolute value of real numbers
- Euclid's division Lemma
- Fundamental theorem of Arithmetic

### 3. Algebraic Expressions :

- Introduction to algebraic expression ?
- Operations on algebraic expressions
- Methods of factorization of algebraic expression ?
- Introduction to polynomials
- Operations on polynomials

- Value of polynomials
- Zeros/roots of polynomial
- Relation between zeros and coefficient of polynomials?
- Remainder theorem
- Factor theorem

### 4. Graphs :

- Cartesian coordinate system
- Understanding of graphs of lines parallel to axes
- Graph of line  $ax + by + c = 0$

### 5. Linear equations in two variables

- System of linear equations
- Solution of system of linear equations in two variables (Algebraic methods)

### 6. Ratio, proportion and variation

- Introduction to ratio
- Properties of ratio
- Properties of equal ratios
- Theorem on equal ratios
- Percentage as a ratio
- Introduction to proportion
- Introduction to variation
- Revision of concepts based on Direct variation, Inverse variation
- Mixed variation
- Real life problems based on ratio, proportion and variation

### 7. Statistics :

- Collection of data
- Classification and tabulation of data
- Diagrammatic representation of data
- Graphical representation of data
- Mean, median, mode of ungrouped data





# Geometry

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## 1. Lines and Angles :

- Introductions to line
- Basic terms and definitions related to line
- Introduction to Euclid's Geometry
- Plane separation axiom
- Introduction to angles in terms of rotation
- Directed angles, Sexagesimal system
- Types of angles
- zero angle, straight angle, coterminal angle
- Relation between angles
- Introduction to mathematical proofs
- Parallel lines
- Results on parallel lines and transversal
- Tests of parallel lines
- Results on perpendicular lines
- Distance of a point from a line

## 2. Triangles :

- Types of triangles
- Terms related to triangle
- Properties of triangle
- Exterior angles and corresponding interior opposite angles
- Results involving exterior angle and corresponding interior opposite angles
- Similar triangles

## 3. Congruence of triangles :

- Criteria of congruent triangles
- Theorem of an isosceles triangle and its converse
- Perpendicular bisector theorem
- Angle bisector theorem
- Properties of triangles based on inequalities
- Property of perpendicular drawn from a point outside the line.

## 4. Circle :

- Introduction to circle and related terms
- Circle passing through the given points
- One and only one circle passes through the three non collinear points.
- Congruence of circles
- Properties of chords of the circle

## 5. Quadrilateral :

- Properties of quadrilateral
- Properties of parallelogram
- Properties of rectangle
- Properties of a trapezium
- Properties of a rhombus
- Properties of a square
- Kite
- Tests for particular quadrilateral
- Theorem on midpoints of two sides of a triangle and its converse



#### 6. **Coordinate Geometry :**

- Distance formula
- Section formula
- Area of a triangle

#### 7. **Geometric constructions :**

- Basic construction - perpendicular bisector of given segment.
- Construction of a triangle
  - Sum/difference of two sides and base angles is given
  - Perimeter and base angles are given

#### 8. **Trigonometry :**

- Introduction to trigonometric ratios
- Trigonometric Ratios of angles  $0^\circ$ ,  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$ ,  $90^\circ$
- Trigonometric identities for complementary angles

#### 9. **Mensuration :**

- Area of triangle
- Area of regular hexagon, polygon
- Area of quadrilaterals
- If two parallelograms lie between two parallel lines and have the same base then they have the same area.
- If a triangle and a parallelogram have the same base and lie between the same parallel lines, then the area of the triangle is half the area of the parallelogram.
- Perimeter of triangle and quadrilateral
- Area of circle





## Std. X

# Algebra

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### 1. Arithmetic Progression :

- Introduction to Sequence
- Arithmetic Progression (A.P.) and Geometric Progression (G.P.)
- General term of an A.P. and G.P.
- Sum of the first 'n' terms of an A.P. and G.P.
- Arithmetic Mean and Geometric Mean.

### 2. Quadratic Equations

- Introduction to quadratic equations
- Solutions of quadratic equations
- Nature of roots based on discriminant
- Relation between roots of the equation and coefficient of the terms in the equation Equations reducible to quadratic form

### 3. Linear equations in two variables

- System of linear equations in two variables
- Algebraic methods of solving linear equations in two variables
- Graphical representation of different possibilities of solutions/Inconsistency
- Graphical method of solving a system of linear equations
- Determinant of order two

- Cramer's rule

- Consistency of pair of linear equations

### 4. Probability :

- Introduction to probability and related terms
- Classical definition of probability
- Types of events
- Equally likely outcomes
- Probability of an event
- Properties of Probability
- Addition theorem (without proof)

### 5. Statistics :

- Brief revision of Tabulation of data, inclusive and exclusive type of tables
  - Mean, median and mode of grouped data
  - Histograms, frequency polygon, frequency curve, pie diagram
  - Ogives (Cumulative frequency graphs)
  - Applications of ogives in determination of median
  - Relation between measures of central tendency
  - Introduction to normal distribution
  - Properties of normal distribution
- 





# Geometry

## 1. Similarity :

- Properties of ratios of areas of two triangles
- Basic proportionality theorem
- Introduction to similarity
- Similar triangles
- Areas of two similar triangles
- Similarity in right angled triangles
- Pythagoras theorem and its converse
- 30o-60o-90o theorem and 45 o-45 o-90 o theorem
- Application of Pythagoras theorem in acute and obtuse angle.
- Appolonius theorem

## 2. Circle :

- Tangents and its properties
- Theorem - Tangent at any point to the circle is perpendicular to the radius and its converse
- Number of tangents from a point to a circle
- Theorem- The length of two tangent segments drawn from a point outside the circle are equal
- Touching circles
- Introduction to an arc
- Angle subtended by the arc to the centre and to the point on the circle
- Cyclic quadrilateral
- Tangent - Secant theorem

## 3. Co-ordinate Geometry :

- Slope of a line
- Intercepts made by a line
- Standard forms of equation of a line
- General equation of a line.

## 4. Geometric Constructions :

- Division of line segment in a given ratio
- Basic geometric constructions

- Construction of tangent to the circle from the point on the circle and out side the circle.
- Construction of tangent without using centre
- Construction of triangle If the base, angle apposite to it and either median altitude is given
- Construction of a triangle similar to a given triangle

## 5. Trigonometry :

- Angles in standard position.
- Trigonometric ratios in terms of coordinates of point
- Trigonometric Identities (with proof)
- Use of basic identities and their applications
- Problems on height and distance

## 6. Menstruation :

- Length of an arc
- Area of the sector
- Area of a Circular Segment
- Euler's formula
- Surface area and volume of cuboids Spheres, hemispheres, right circular cylinders cones, frustum of a cone.
- Problems based on areas and perimeter/circumference of circle, sector and segment of a circle.
- Problems on finding surface areas and volumes of combinations of any two of the following : cuboids, spheres, hemispheres and right circular cylinders/ cones
- Problems involving converting one type of metallic solid into another.





# General Mathematics

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## Introduction :

Mathematics is the language of all sciences. It is important to note that the subject itself has a separate identity in the life of human beings. The study of Mathematics has to be graded at different levels viz. primary, secondary and higher secondary. At the primary level the focus is on understanding the various concepts and fundamentals and on developing basic skills of calculation. At the secondary level the emphasis is on developing the capacity of the student to apply mathematics in solving problems.

As curriculum renewal is a continuous process, the curriculum of Mathematics has also undergone several changes from time to time in accordance with the changing needs of the society. In response to the demand of the society after deliberation of Government and Maharashtra State Board of Secondary and Higher Secondary Education, the Board has taken decision to implement Mathematics at two levels from the year 2008 viz. Mathematics (Algebra and Geometry) and General Mathematics.

The Board has restructured the syllabus of Mathematics for std. IX and X on the directives of NCF 2005 and SCF 2010 with a new perspective. The syllabus has been designed to foster a sense of personal achievement and to encourage the continuing creative interaction so as to overcome Mathophobia among students.

The logical proofs of the problems are

avoided while restructuring the syllabus of General Mathematics. The topics selected are useful to develop knowledge, understanding skill and application which will enable the students to cope confidently with the developments in the modern world.

## OBJECTIVES

- Consolidate the knowledge and skills acquired in Mathematics at primary stage.
- Acquire the knowledge and skills required for various competitive examinations.
- Acquire the skills required for various professions where minimum qualification is Standard X.
- Acquire the skills in Mathematics required for self employment.
- Expertise in basic Mathematical skills.
- Build the confidence and develop creative interest in Mathematics.
- Use the available modern technology to understand the concepts in Mathematics
- Understand and use the terms, symbols, principles in Mathematics.
- Apply mathematical knowledge to solve problem in real life situations.
- Develop the skill of drawing through geometric constructions.
- Think logically, analytically and use





different techniques for problem solving.

## **Std. IX Part-I**

### **Unit (I) - Arithmetic**

#### **1. Indices -**

- Introduction
- Laws of indices
- Square and square root
- Cube and cube root

#### **2. Ratio and Proportion -**

- Introduction : Ratio
- Properties of ratios
- Theorems on equal ratios
- Proportion

### **Unit(II) - Commercial mathematics**

#### **3. Profit and Loss -**

- Introduction to profit and loss.
- Percentage Profit
- Percentage Loss

#### **4. Interest, Banking and Currency -**

- Simple interest
- Compound interest
- Growth and decay
- Banking and Currency exchange

### **Unit (III) - Algebra**

#### **5. Algebraic expression**

- Identities
- algebraic expression
- Operations on algebraic expressions
- Polynomials, Factors of quadratic polynomial

#### **6. Linear equations in one variable**

- Introduction

- Solutions of the equations
- Word Problems

## **Part-II**

### **Unit (IV) - Geometry**

#### **1. Lines, Angles and Plane -**

- Axioms
- Parallel lines, perpendicular lines, Coplanar lines, Transversal
- Properties of parallel lines
- Angle, Types of angles
- Pair of angles

#### **2. Triangles -**

- Types of triangles
- Medians, altitudes, angle bisectors, Perpendicular bisectors of sides of triangles
- Congruence of triangles
- Properties of triangles

#### **3. Quadrilaterals**

- Types of quadrilaterals
- Properties of particular quadrilateral

### **Unit (V) - Construction**

#### **4. Geometric Constructions**

- Basic constructions
- Construction of triangle
- Construction of quadrilateral
- Constructions to the design related

### **Unit (VI) - Mensuration**

#### **5. Measurement and Area**

- Measurement of the length, weight and capacity
- Perimeter and Areas
- Area of circle and circumference

### **Unit (VII)th - Statistics**

#### **6. Statistics**

- Collection of data
- Types of data
- Classification of data
- Representation of data



- Measures of central Tendency for ungrouped data

## **Std. X**

### **Part-I**

#### **Unit I - Arithmetic**

##### **1 Variation -**

- Introduction
- Types of variation
- Time, work and speed

##### **2 Sequences -**

- Introduction
- Patterns of numbers
- Progressions
- Arithmetic Progressions

#### **Unit II - Commercial Mathematics**

##### **3 Modern marketing techniques -**

- Discount
- Rebate
- Commission
- Brokerage
- Instalments

##### **4 Taxes and Investments -**

- Introduction
- Sales tax
- VAT
- Income Tax
- Investments
  - Bank investment
  - Post investment
  - Life insurance
  - Shares and Mutual funds

#### **Unit III - Algebra**

##### **5 Linear equations in two variables**

- Introduction
- Solution of equations in two variables
- Methods of solving linear equations in two variables

##### **6 Quadratic equations -**

- Introduction
- Solution of quadratic equations
- Methods of solving quadratic equations

### **Part-II**

#### **Unit IV - Geometry**

##### **1. Similarity**

- Introduction
- Test of similarity
- Properties of similar triangles
- Basic proportionality theorem
- Similarity in right angled triangle. Pythagoras theorem statement
- Pythagorean Triplets
- Application of Pythagoras theorem
- Appolloneous theorem

##### **2. Circle -**

- Introduction
- Terms related to circle
- Properties of chords
- Properties of tangents
- Arc of circle

##### **3. Trigonometry**

- Basic concepts in Trigonometry
- Problems related to height and



distance

### **Unit V - Constructions**

#### **4. Geometric Constructions -**

- Construction of incircle of triangle
- Construction of circumcircle of triangle
- Tangents to the circle
- Construction related to design

### **Unit VI- Mensuration**

#### **5. Surface area and volume -**

- Parallelopiped
- Rectangular parallelopiped
- Cube
- Cylinder

- Cone
- Sphere and hemisphere

### **Unit - Statistics**

#### **6. Statistics**

- Representation of data
- Histogram
- Frequency polygon
- Pie Diagram
- Measures of central tendency for grouped data
- Probability





## 6

# SCIENCE AND TECHNOLOGY

### Introduction

The National curriculum Framework 2005(NCF 2005) is one of the most comprehensive documents published in the last decade. It suggests radical changes in curricula for the country and offers an excellent framework for preparing need based curricula. While revising the syllabi for Science and Technology, the position paper on science ( NCF 2005) has selected "Learning without burden" as the main theme. It also recommends a pedagogy which is hands-on and inquiry based. The present syllabus of Science and Technology for Std. IX and X is based on the principles and themes suggested in NCF 2005. The Themes are cross-disciplinary in nature: Food, Materials, The world of the Living, How things work, Moving things; people and ideas; Natural Phenomena and Natural Resources. Some themes have been merged to consolidate content.As suggested in NCF 2005, unnecessary focus on enumeration has been avoided. More importance has been given to the processes in science rather than focusing on only factual information.

Since the themes are inter-linked to each other, the entire syllabus has been integrated into one paper . This will facilitate better understanding of the subject across disciplinary boundaries and at the same time expose students to many topics in Biology, Physics and Chemistry.

### Objectives

1. To enable the students to "Learn without Burden".
2. To expose the students to a "hands-on way" of learning science.
3. To correlate scientific principles to the student's experience.
4. To involve students in exploring topics through discussion and activity.
5. To imbibe the spirit of enquiry in students through valuable learning experiences through experiment.
6. To help the students become autonomous learners.

### STD. IX

#### 1. Food

- 1.1. Plant and animal breeding and selection for quality improvement.
- 1.2. Use of fertilizers, manures.
- 1.3. Protection from pests and diseases; organic farming.

#### 2. Materials

- 2.1 Matter: All things occupy space, possess mass. Definition of matter, characteristics of solids, liquids and gases e.g. shape, volume, density. Change of state: freezing, melting, evaporation, condensation, sublimation. Cooling by evaporation. Absorption of heat.
- 2.2 Elements, mixtures and Compounds: elements, compounds and mixtures as types of chemical substances. Types of mixtures; Heterogeneous, homogeneous, colloids, suspensions.
- 2.3 Combination of substances: Law of constant proportion, atomic and molecular masses. Particle nature, basic units: Atoms and Molecules.
- 2.4 Mole Concept: Relationship of mole to mass of the particles and numbers.



Valency. Chemical formulae of common compounds.

- 2.5 Atomic Structure: Electrons, protons and neutrons. Atomic number and atomic mass number. Isotopes and Isobars.

### 3. The World of the Living

#### 3.1 Biological Diversity

Diversity of plants and animals: Basic issues in scientific naming. Basis of classification, Hierarchy of categories/groups.

Plant classification: Major Plant groups (salient features): Bacteria,

Thalophyta, Bryophyta, Pteridophyta, gymnosperms and Angiosperms. Animal Classification : Major groups of animals (salient features): Non-Chordates up to phyla and non chordates up to classes.

- 3.2 Smallest living unit of Life, Cell : Cell as a basic unit of life prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, cell organelles, chloroplast, mitochondria, vacuoles, ER, Golgi apparatus. Nucleus, chromosomes, basic structure, number. Tissues, organs, organ system, organism

Structure and functions of animal and plant tissues. (four types in animals; meristematic and permanent tissues in plants).

#### 3.3. Health

- \* Failure of health leading to disease.
- \* Disease and its causes.
- \* Diseases caused by microbes and their prevention: Typhoid, diarrhoea, malaria, hepatitis, rabies, AIDS, TB, Polio.

\* Pulse Polio program.

- 3.4. Exchange of substances by living organisms with the external world:

Diffusion/exchange of substances between cells and their environment and between the cell themselves in the living system; role in nutrition, water and food transport, excretion, gaseous exchange.

#### 4. Moving Things. People and ideas. Motion.

- 4.1 Motion: displacement, velocity, Uniform and non-uniform motion along a straight line, acceleration, distance-time and velocity-time graphs for motion and uniformly accelerated motion. Equations of motion by graphical method . Elementary idea of uniform circular motion.

- 4.2. Force and Newton's Laws : Force and Motion; Newton's Laws of Motion. Inertia of a body, inertia and mass, momentum, force and acceleration.

Elementary idea of conservation of momentum, action and reaction forces.

- 4.3. Gravitation: gravitation, universal law of gravitation, force of gravitation of the earth (earth's gravity), acceleration due to gravity, mass and weight, free fall .

- 4.4. Work, Energy and Power: work done by a force, energy, power. Kinetic and Potential energy, Law of conservation of energy.

- 4.5 Floating Bodies: Thrust and Pressure, Archimedes' Principle, Buoyancy. Idea of relative density.

- 4.6. Sound; Nature of sound and its propagation through different media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo and SONAR Structure of the



Human Ear. (Auditory aspect).

## 5. Natural Resources - Understanding Ecosystem -

- 5.1 Types of ecosystem - forest, grassland, desert, aquatic, costal, marine
- 5.2 Interaction between biotic and abiotic factors in an eco-system
- 5.3 Energy flow and its importance. Cycles of nutrients in terrestrial and aquatic (fresh water and marine) ecosystems, nature's mechanism in maintaining balance.

## 6. Waste Generation and Management

- 6.1 Sources of waste - domestic, industrial, agricultural and commercial
- 6.2 Classification of waste : biodegradable non biodegradable, toxic, non- toxic biomedical.
- 6.3 Impact of waste accumulation - Spoilage of landscape, pollution, health hazards, effect on terrestrial and aquatic (fresh water and marine) life.
- 6.4 Need for management of waste.
- 6.5 Methods of safe disposal of waste segregation, dumping, composting, drainage, treatment of effluents before discharge, incineration, use of scrubbers and electrostatic precipitators.
- 6.6 Need for reducing, reusing and recycling waste.
- 6.7 Legal provisions for handling and management of waste.

### STD. IX

### PRACTICALS

#### LIST OF EXPERIMENTS

- 1. 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

## 2. To prepare

- a) a mixture
- 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 a magnet
- iii) Behaviour towards carbon disulphide as a solvent.
- iv) Effect of heat.

- 3. To carry out the following chemical reactions and record observations. Also identify the type of reaction involved in each case

- i) Iron with copper sulphate solution in water.
- ii) Burning of Magnesium in air.
- iii) Zinc with dilute sulphuric acid
- iv) Heating of Lead Nitrate
- v) Sodium sulphate with Barium chloride in the form of their solutions in water.

- 4. To verify laws of reflection of sound.
- 5. To determine the density of solid. (denser than water) by using a spring balance and a measuring cylinder.
- 6. To establish the relation between the loss in weight of a solid when fully



immersed in

- i) tap water
  - ii) strongly salty water, with the weight of water displaced by it by taking at least two different solids.
  7. To measure the temperature of hot water as it cools and plot a temperature-time graph.
  8. To determine the velocity of a pulse propagated through stretched string/slinky.
  9. To prepare stained temporary mounts of onion peel and to record observations and draw labeled diagram.
  10. To identify parenchyma and sclerenchyma tissues in plants, striped muscle fibers and nerve cells in animals, from prepared slides and to draw their labeled diagrams.
  11. To separate the components of a mixture of sand, common salt and ammonium chloride (or camphor) by Sublimation.
  12. To determine the melting point of ice and the boiling point of water.
  13. To test (a) the presence of starch in the given food sample (b) the presence of the adulterant metanil yellow in dal.
  14. To study the characteristic of spirogyra/Agaricus, Moss/Fern, Pinus (either with male or female cone) and an Angiospermic plant. Draw and give two identifying features of groups they belong to.
  15. To observe and draw the given specimens-earthworm, cockroach, bony fish and bird. For each specimen record.
- a) one specific feature of-its phylum

- b) one adaptive feature with reference to its habitat.

### STD. X

1. Materials
  - 1.1 Acids and Bases: Acids, Bases and Salts: General properties, examples and uses.
  - 1.2 Chemical Reactions: Types of chemical reactions: combination, decomposition, displacement double decomposition, precipitation, and neutralization.
  - 1.3 Oxidation and Reduction: Oxidation and Reduction in terms of gain and loss of oxygen and hydrogen.
  - 1.4 Metals and Non-Metals: Brief discussion on basic metallurgical processes. Properties of common metals. Elementary idea about bonding.
  - 1.5 Carbon Compounds: Elementary idea about bonding. Saturated hydrocarbons, alcohols, carboxylic acids (properties only)
  - 1.6 Common chemicals used in daily life: Soap, common salt, Washing soda, Baking soda, bleaching powder, Plaster of Paris.
  - 1.7 Classification of Elements: Brief historical account, Mendeleev's periodic table, gradation in properties.
2. The World of the Living
  - 2.1. Life Processes: Definition of "Living things". Basic concept of nutrition, respiration, transport and excretion in plants and animals.
  - 2.2. Control in the Living: Tropic movements in plants .Introduction to plant hormones; control and coordination in animals; voluntary, involuntary and reflex action, nervous system, chemical coordination, animal hormones.



2.3. Reproduction in the Living: Reproduction in plants and animals. Need for and methods of family planning. Safe Sex vs-. HIV/AIDS. Child bearing and women's health.

2.4. Heredity and Evolution: Heredity, origin of life- brief introduction, Basic concepts of evolution.

3. Moving things. People and Ideas

3.1. Electric Circuits: Potential and potential difference. Ohm's Law, Resistances in series and parallel. Power dissipated due to current. Inter relation between P, V, I and R.

3.2. Magnets: Magnetic field, field lines. Field due to a current carrying wire, coil, solenoid. Force on current carrying conductor. Fleming's Left Hand Rule. Electric motor, electromagnetic induction. Induced potential differences, induced current. Electric generator, principle and working.

Direct and Alternating current. Frequency of AC. Advantages of AC over DC. Domestic Electric Circuits.

#### 4. Natural Phenomena

4.1. Light : Convergence and Divergence of Light.

4.2. Spherical Mirrors: Images formed by a concave mirror. Related concepts: centre of curvature, principal axis, optical centre, focus, focal length.

4.3. Refraction: appreciation of the concept of refraction. Laws of refraction. Velocity of light. Refractive index; twinkling of stars; dispersion of light. Scattering of light.

4.4. Lenses: Images formed by a convex lens; functioning of the lens in the human problems of vision and their

remedies. Application of spherical mirrors and lenses.

#### 5. Pollution

5.1 Types of pollution - air, water, (fresh and marine), soil, radiation, and noise.

5.2 Sources of pollution and major pollutants, oil spills

5.3 Effect of pollution on -environment, human health and other organisms

5.4 Abatement of pollution

6. Striving for a Better Environment

6.1 Use of efficient and eco-friendly technology

6.2 Sustainable use of resources.

6.3 Enforcement of acts, laws and policies

### STD. X

#### PRACTICALS

##### LIST OF EXPERIMENTS

1. To find the pH of the following samples by using pH paper universal indicator.

i) Dilute Hydrochloric acid

ii) Dilute NaOH solution

iii) Dilute Ethanoic acid solution

iv) Lemon juice .

v) Water

vi) Dilute Sodium Bicarbonate Solution.

2. To study, the properties of acids and bases HCl & NaOH by their reaction with

i) Litmus solution (Blue/Red)

ii) Zinc metal

iii) Solid Sodium Carbonate

3. To determine the focal length of

a) Concave mirror





- b) Convex lens by obtaining the image of a distant object.
4. To trace 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.
  5. To study the dependence of current (I) on the potential difference (V) across a resistor and determine its resistance. Also plot a graph between V and I.
  6. To determine the equivalent resistance of two resistors when connected in series.
  7. To determine the equivalent resistance of two resistors when connected in parallel.
  8. To prepare a temporary mount of a leaf peel to show stomata.
  9. To show experimentally that light is necessary for photosynthesis.
  10. To show experimentally that carbon dioxide is given out during respiration.
  11. To study (a) binary fission in Amoeba and (b) budding in yeast with the help of prepared slides.
  12. To determine the percentage of water absorbed by raisins.
  13. To perform and observe the following reactions and classify them into;
    - i) Combination Reaction .
    - ii) Decomposition Reaction
    - iii) Displacement Reaction
    - iv) Double Displacement Reaction
  1. Action of water on quick lime. .
  2. Action of heat on Ferrous Sulphate crystals
  3. Iron Nails kept in copper sulphate solution
  4. Reaction between Sodium sulphate and Barium chloride solutions.
  14. a) To observe the action of Zn, Fe, Cu and Al metals on the following salt solutions.
    - i)  $\text{ZnSO}_4$  (aq.)
    - ii)  $\text{FeSO}_4$  (aq.)
    - iii)  $\text{CuSO}_4$  (aq.)
    - iv)  $\text{Al}_2(\text{SO}_4)_3$  (aq.)b) Arrange Zn, Fe, Cu and Al metals in the decreasing order of reactivity based on the above result.
  15. To study the following properties of acetic acid (ethanoic acid):
    - i) odour
    - ii) solubility in water
    - iii) effect on litmus
    - iv) reaction with sodium bicarbonate





## SOCIAL SCIENCES

### PART -I

## HISTORY AND POLITICAL SCIENCE

### HISTORY

#### Introduction

This syllabi includes Ancient, Medieval and Modern history. We tried to draw all the events and movements chronologically, also recognized India's Political, Social and cultural values in the new education policy. Inclusion of Religious and social Reformation can develop moral attitude among the students. Giving deep knowledge of our country, to the students of secondary as well as higher secondary, is our main motto.

Standard X History begins with Revolutions simultaneously turning into Imperialism. Study of two world wars show how the constructive mind turned as a destructive one by giving the knowledge of two dictators.

After that the students will study about scientific and technological era that the students do need now a days. This kind of vast knowledge really make them think about what the world achieved in past, what it is going to achieve now and what will be the future standing before them.

#### Objectives

1. To safeguard the comprehensive and unbiased perspective in the teaching of history.
2. To interpret & analyses past in order to understand the present and to face ably the challenges of the future.
3. To develop students' curiosity and analytical reasoning in the subject of history.

4. To develop contemporary, cultural, social & modern point of view and to build a scientific attitude free from narrow mindedness, regressive prejudices and communalism.
5. To create awareness about the protection of environment.
6. To develop a historical attitude in order to understand universal brotherhood, human rights, international understanding and to understand the challenges of globalization.
7. To create awareness about the important historical events, contemporary important happenings & critical issues.
8. To inculcate and preserve the values of unbiased nationalism, national integration, secularism & democracy.
9. To develop humanitarian & community oriented attitude among the students.

#### Std IX

#### Unit 1 : Ancient and Medieval Civilizations

- a) Greek b) Indian c) Arabian

#### Unit 2 : Renaissance and Feudalism

- a) Feudalism in Medieval Age, Decline, Crusades  
b) Reformation  
c) Renaissance

#### Unit 3 : Age of Revolutions

- a) Industrial Revolution



- b) American war of Independence
- c) French Revolution

### **Std. X**

#### **Unit 1 : Imperialism**

- a) Geographical discoveries and colonization
- b) Asia: India, China, Japan
- c) Africa

#### **Unit 2 : 20th Century Age of conflict**

- a) First world war
- b) Russian Revolution
- c) The League of Nations
- d) Dictatorships in Europe, Second World War and world
- e) United Nations Organization

#### **Unit 3 : Emancipation of Asia and Africa**

- a) Asia
- b) Africa

#### **Unit 4 : World after World War II**

- a) Cold war
- b) Scientific and Technological Progress
- c) Globalization

### **POLITICAL SCIENCE**

#### **Introduction**

This subject was earlier known as civics. The students were learning basically about rights and duties in this subject. Students are also expected to learn political concepts like democracy, political parties, etc. Therefore, the students will learn Political Science at this stage.

Political Science is a Social Science. We all live in a society. So we must learn

about society as well as activities in the society. Basically all political activities are studied in Political Science.

Political Science is one of the important Social Science. It deals with fundamental rights and duties of citizen, Electoral process, Constitution etc. Political Science basically deals with Democracy, political parties, Social diversity and its relationship with democracy. Through the syllabus of political science an attempt is made to explain the challenges to democracy.

Political Science trains students to study actual day to day problem to identify and analyse them.

#### **Objectives**

1. To introduce to students importance of Political Science in human life from primitive age to modern times.
2. To introduce to students political concepts and political ideologies.
3. To introduce India's political system to students.
4. To introduce to students attitudes and values strengthening healthy civic and political life.
5. To develop sense of responsibility regarding voting process for developing participatory democracy.
6. To strengthen awareness about Fundamental Rights and Duties listed in constitution.
7. To introduce to the students social diversity in Democracy.

### **Std. IX**

1. Introduction to Political Science Meaning, Nature and Scope.
2. Making of the Constitution of India



Need of the Constitution, Constituent Assembly Preamble to the constitution of India

3. Fundamental Rights and Duties, Need of Fundamental Rights, Fundamental Rights mentioned in Indian Constitution  
What are Duties?
4. Electoral Process  
What is election? Voter, Constituency, Candidate,  
Adult franchise, Direct and Indirect election
5. Internal Work

**Std. X**

1. Democracy  
Meaning, Types and characteristics

2. Political Parties and types Meaning, Need, Types of Political Parties - National and Regional
- 3 Social Diversity and Democracy.  
What is social diversity?
  - i) Caste/race and Democracy
  - ii) Language and Democracy
  - iii) Religion and Democracy
  - iv) Gender and Democracy
4. Challenges to Democracy Remedial measures to the challenges
5. Internal work





## SOCIAL SCIENCES

### Part - II

## GEOGRAPHY AND ECONOMICS

### GEOGRAPHY

#### Introduction

Students at early state are very curious, so while observing they learn geography unknowingly. Hence Geography is introduced in their syllabus at early stage. Gradually from their doorstep they are taken to the world through curriculum. At 9th and 10th level students are well equipped with information about natural processes operating in different parts of the world. At this stage they are being exposed to aerial differentiation and problems arising out of them. The regional differentiations are basically because of differences in natural resources as well as the ability and efficiency of the people to utilize them and hence at this level they are introduced to understand the resource base and analyse the reasons of regional imbalance.

Maharashtra being a home state of the students, these concepts are introduced with Maharashtra and then in the next step to India.

The SCF (State Curriculum Framework) has been introduced in 2010 by Government of Maharashtra is very much in line with NCERT (National Council for Educational and Research Training) Which gives emphasis on students participation in creation of knowledge as well as active learning for the syllabus for geography to promote these Objectives outlined in the SCF2010

#### Objectives

To enable the students to

1. Develop an understanding of man and environment, their interrelationship at the global level
2. Develop awareness to protect the environment
3. Protect and improve the natural resources including forests, water, soils and wild life
4. Understand and appreciate the diversity of land and people of the country with its unity underlying
5. Enhance & deepen the knowledge and understanding of Indian environment in its totality. Their interactive processes and effects on the quality of life in future
6. Develop an understanding and concern about the growing population and its impact on the environment
7. Develop an appreciation of the interdependence of nations and regions of the world in general and India in particular.
8. Develop scientific knowledge by promoting the spirit of enquiry and following a rational and objective approach
9. Develop skills and abilities to read, understand and analyse geographical data presented in various forms such as photographs, maps, graphs, diagrams and charts



## GEOGRAPHY OF MAHARASHTRA

### Std. IX

#### Unit 1: Concept of Region

- 1.1 Concept of Region
- 1.2 Identification of a region

#### Unit 2: Natural resources

- 2.1 Land
- 2.2 Water
- 2.3 Soil
- 2.4 Forests
- 2.5 Minerals

#### Unit 3: Occupations

- 3.1 Classification of occupations

#### Unit 4: Agriculture

- 4.1 Types of agriculture
- 4.2 Major crops

#### Unit 5: Industries

- 5.1 Agro-based industries
- 5.2 Other industries

#### Unit 6 : Transportation, Communication and Tourism

- 6.1 Types of transportation
- 6.2 Means of Communication
- 6.3 Tourism

#### Unit 7: Population

- 7.1 Growth of population
- 7.2 Structure of population

#### Unit 8: Regional development

- 8.1 Human development Index
- 8.2 Regional development in Maharashtra

#### Unit 9: Practical

- 9.1 Cartography
- 9.2 Isopleths maps
- 9.3 Field study

## GEOGRAPHY OF INDIA

### Std. X

#### Unit 1: Physical Divisions of India

- 1.1 Identification of Physical divisions

#### Unit 2: North Indian Mountains

- 2.1 Himalayas
- 2.2 Associated mountains

#### Unit 3: North Indian Plain Region

- 3.1 Deserts
- 3.2 Western Plains
- 3.3 Central Plains
- 3.4 Eastern Plains
- 3.5 Delta region

#### Unit 4: Peninsular Plateau Region

- 4.1 Malwa Plateau
- 4.2 Chhotta Nagpur Plateau
- 4.3 Maharashtra Plateau
- 4.4 Karnataka Plateau
- 4.5 Telangana Plateau

#### Unit 5: Western Ghats and Eastern Ghats

- 5.1 Sahyadries
- 5.2 Eastern Ghats

#### Unit 6: Coastal Region

- 6.1 Eastern coastal plain
- 6.2 Western coastal plain

#### Unit 7: Indian Islands

- 7.1 Western Islands
- 7.2 Eastern Islands

#### Unit 8: Practical

- 8.1 Cartography

#### Unit 9: Practical

- 9.1 One dimensional diagrams
- 9.2 Two dimensional diagrams



## ECONOMICS

### Introduction

According to the National Educational Policy 1986, Economics has been included in Social Science faculty to be taught at IX and X standard. Keeping in view the Objectives of NCF 2005 to provide information of Economics and Nature of? Economy through constructivism to the students of Secondary Section, the subject Economics has been included in SCF 2010 for the students of IX & X standard. While preparing the curriculum and the Objectives of Economics, Consideration has been made of Recent Events and Future changes in the economy and also to develop the potentials of the students.

### General Objectives

1. Economics is one of the important subjects in Social Science. The subject should be taught with scientific methods so that it becomes easy and simple for the students to understand.
2. To provide primary information to the students about Economics & Nature of Economy with changing time.
3. To develop skills & abilities of the students to use the scarce resources (Natural and human resources) in efficient and optimum manner.
4. To develop creativity among the students to solve the economic problem.
5. To create awareness among the students about local Economic problems and challenges.
6. To introduce to the students Economic concepts, economic planning and new economic policies.
7. To develop potential of self study among the students.
8. To develop research approach of the students with the help of local level projects.
9. To develop awareness among the students about the co-relationship between economy and environment.
10. Creation, construction and application of knowledge among the students through self realization & action.

### Objectives

The study of Economics as a part of Social Science starts from Std. IX to introduce Economics to these students and make them easy to understand, the following objectives are determined.

1. To introduce subject of economics to the students.
2. To develop Self Study with the help of Basic Economic concepts.
3. With the help of the concept of Family Budget, explain the students concepts of Family Income & Expenditure.
4. To explain the concept of Want.

### Std IX

#### 1. INTROCUCTION OF ECONOMICS

- 1.1 Introduction
- 1.2 Concept of Economics, Meaning & Definition
- 1.3 Importance of Economics

#### 2. BASIC ECONOMIC CONCEPTS

- 2.1 Human wants & classification of wants
- 2.2 Commodity - Economic goods & Free goods.
- 2.3 Resources & Scarcity of resources.
- 2.4 Utility, value & Price.



2.5 Demand & Supply.

### 3. SOURCES OF INCOME

3.1 Personal Income - Agriculture, Industry, Trade, Agro allied Industry- Allutedar, Balutedar, Small Scale & Cottage Industry.

3.2 Modern Sources of Income-  
Income from Service Sector- Transport, Communication,  
Doctor, Lawyer, Chartered Accountant, Cyber Café.

### 4. FAMILY BUDGET

4.1 Income & Expenditure, Explanation with the help of Examples.

4.2 Project on Income & Expenditure of family (local level)

#### Std X

#### Objectives

- 1) To give information about Indian Economy to the students.
- 2) To make the students realize the problems of Indian Economy.
- 3) To inform the students about different sectors of economy.
- 4) To make the students aware of consumer's rights.

#### Std X

#### Topics

#### 1.1) Introduction of an Economy

- 1.2) What is an economy?
- 1.3) Types of Economy
- 1.4) Main features of Economy

### 2) Basic problems of an economy solution

2.1) Introduction

#### 2.2) Problems

For whom to produce?

How much to produce?

By whom to produce?

How best are the resources being used?

#### 2.3) Solutions

Capitalism

Socialism

Mixed Economy

Inflation

3.1 Introduction

3.2. Causes of inflation

3.3. Effects of inflation

3.4. Measures

### 4) Public distribution system & consumer protection

4.1. Introduction

4.2. Public Distribution system - meaning & explanation

4.3. Objectives of P.D.S.

4.4. Progress of P.D.S.

4.5. Drawbacks of P.D.S.

4.6. Remedial Measures

4.7. Consumer Protection - Rights & duties of consumer, food adulteration.







# PERSONALITY DEVELOPMENT

## Introduction

Education continues to be a key factor in building a nation. In the year 1892, before independence, Hon'ble Shri Gopal Krishna Gokhale was the first to introduce the compulsory primary education bill in central law board. Finally, free and compulsory primary education has become a reality today. Therefore, along with intellectual development physical, emotional, social and spiritual developments are also being given prime importance in the educational process today. From time to time conducive committed educationists have always emphasized dynamic development of students.

Education is not a material that can be distributed among the students. Effective and enriching education is the foundation of student's development. When the Objectives of education are realized, then true personality development will take place. Regular interactions among children, parents, teachers and society enhance personality growth. Positive approach and healthy environment of educational institution lead to adding value to students' personality.

The major objective of education is to acquire an all-round personality development of students. Preparing students to face challenges in day to day life has become an important goal of today's education. It is only through a programme of personality development that one can break the shackles of traditional closed-door approach to education.

In 2020, India is going to be a nation of youth. The children of primary schools today

will be the generation of 2020. At this juncture, study of 'personality development' as a separate subject will provide each child with an independent thought and identity. Constructivist teaching approach is the basis of this subject. Teaching of this subject coupled with enriching self experience will help the students to build all-round personality in future. This would further lead to a strong, powerful young India.

The objective of personality development subject is to make students strong and bold in order to face upcoming challenges. The framework and the evaluation scheme for this subject have been designed accordingly.

## CONCEPT OF PERSONALITY DEVELOPMENT

### Introduction

Intellectual development was supposed to be the only aim of education for many years. However, the connotation of education has become much larger. Now with the advent of constructivist approach emphasis is given to all-round development of students. The main objective of today's education is development of various abilities and good character along with intellectual growth of students.

While considering the study of all-round development, one must think of the development of body, mind and intellect. A mature personality evolves only after all these three aspects get developed.

Various internal and external factors influence personality development. These in-



fluences have varied impact on students' personalities. Some students excel in physical and some in intellectual development. Students need to understand their individual level of progress in relation to the physical, mental, emotional, intellectual and spiritual growth. Only then it will be easier for the teachers to provide a sense of direction to the students.

### Objectives

- 1) to help students understand the concept of allround development of personality.
- 2) to make students aware of various methods and approaches to an all-round development of personality.
- 3) to help students develop physically, mentally, emotionally intellectually and spiritually.

#### Standard IX

- 1.1 Meaning of personality development
  - 1.1.1 Physical development
  - 1.1.2 Emotional development
  - 1.1.3 Intellectual development
  - 1.1.4 Social development
  - 1.1.5 Spiritual development

#### Standard X

- 1.1 Review of syllabus covered in Std. IX
- 1.2 Evaluation of Personality development of oneself
  - 1.2.1 Review of oneself regarding physical development
  - 1.2.2 Review of oneself regarding emotional development
  - 1.2.3 Review of oneself regarding intellectual development

- 1.2.4 Review of oneself regarding Social development
- 1.2.5 Review of oneself regarding Spiritual development
- 1.2.6 Planning for future development

### Who Am I ?

#### Introduction

Identifying and knowing oneself is very important for every teenage. During adolescence every boy and girl undergoes physical and mental changes. At this juncture, every student starts to find out the answer of the question- 'who am I?' At home students constantly grow as an individual and at school as a social being. The contribution of parents and teachers is crucial in helping the students to establish their self identity. Guidance of teachers and parents will facilitate the smooth transition of a student from teenage to youth. Helping students to develop healthy and sound personality is one of the major Objectives of 'Personality Development' subject.

#### Objectives

- 1) to help students know the meaning of self-identity.
- 2) to help students understand the physical and mental development of self.
- 3) to motivate students to think over their likes and dislikes and plan the future.
- 4) to motivate students to identify their ideals and to lead a cultured and decent life.

#### Standard IX

- 2.1 Knowing oneself
  - 2.1.1 Knowing one's own body
  - 2.1.2 Knowing one's own mind
  - 2.1.3 Reviewing physical and mental



qualities in oneself

## 2.2. Future of self

### 2.2.1 Nature of oneself, likes and dislikes of oneself

### 2.2.2 Family and social background of oneself

### 2.2.3 Plan for the future development of oneself

#### **Standard X**

## 2.1 Review of syllabus covered in Std. IX

## 2.2 Search for one's own ideals

### 2.2.1 Ideas about one's own ideals

### 2.2.2 Ways and means to reach one's ideals

#### A. Reading good literature

#### B. Participation in workshops, seminars, group discussions, social gathering, etc.

## 2.3 Preparing for one's future

### 2.3.1. Ideas about one's future

### 2.3.2. Family and social background of oneself

### 2.3.3 Making use of natural dispositions and capacities

## **VALUE EDUCATION**

### **Introduction**

Values are guideposts in our life. We must teach our children universal values like truth, honesty, compassion, peace, etc. Values give a sense of security and self esteem to those who adopt them. Values help children to protect themselves from falling into traps and not to succumb to easy temptations and not to step on anybody else's shoes. Some experiences will definitely educate children about what is right and what is wrong. However, value education should

not be left only to training through chance events. So, we must create appropriate atmosphere to teach our children basic values.

### **OBJECTIVES**

To enable students to

- i) acquire knowledge regarding values as per their age and standard of learning.
- ii) realise importance of values in day-to-day life.
- iii) develop judgmental capacity to differentiate between good and bad.
- iv) inculcate values such as truth, nonviolence, gender, equality, humanity, dignity of labour, secularism, national integration, patriotism, peacefulness etc.

#### **Standard IX**

## 3.1. Concept and importance of value education.

### 3.1.1 Concept of value education

### 3.1.2 Importance of value education

## 3.2. Process of value inculcation

### 3.2.1 Family Teachings

### 3.2.2 School Teachings

### 3.2.3 Reading of good literature

### 3.2.4 Value inculcation through self experience

## 3-3 Inculcation of values (Truth, Non violence, Humanity, Dignity of Labour, Gender, Equality, Patriotism, Peace, National Integration, Secularism, Global Citizenship, Inclusiveness with respect to gender, race, caste, religion)

#### **Standard X**

## Review of syllabus covered in Std. IX

## 3.1 Factors responsible for inculcation of values



3.2.1 Personal factors

3.2.2 Family factors

3.2.3 Social factors

3.2.4 Cultural factors

3.2.5 Educational factors

3.3 Inculcation of values through activities and project

3.3.1 Activities

3.3.2 Projects

Note :

- 1) All the values to be introduced in Std. IX.
- 2) Values to be inculcated through activities and project in Std X.

## GROWING UP

### Introduction

The child in the stage of puberty is in a great hurry to grow up, feel independent and to experience various pleasures of life. Poor foundations, lack of guidance, absence of suitable models, inadequate opportunities for social development, in appropriate exposure through electronic media and insufficient motivation are some of the conditions which make transition to adolescence and good citizenship difficult. The social and emotional pressures on adolescents to have friendship or relationship with opposite sex can be quite strong. We have to make sure that our students turn out to be a responsible citizen.

### Objectives

- 1) to enable the students to have some insight into physical emotional and psychological changes during puberty
- 2) to help them keep away from negative peer pressure
- 3) to help them know importance of good

human relationships

- 4) to strengthen the family bonding

### Standard IX

4.1 Changes during puberty

4.1.1 Physical changes

4.1.2 Emotional changes

4.1.3 Psychological changes

4.2 Advantages and disadvantages of Peer Pressure

4.2.1 Advantages of Peer Pressure

4.2.2 Disadvantages of Peer Pressure

4.3 Family Bonding.

4.3.1 Relationship with elderly in the family

4.3.2 Relationship with siblings

### Standard X

4.1 Review of syllabus covered in Std. IX

4.2 Controlling temptations

4.2.1 Types of temptation (Things & persons)

4.2.2 Measures for controlling temptations

4.3 Building healthy relationships

4.3.1 Meaning of healthy relationships

4.3.2 Development of healthy relationships

4.4 Communication skills and proper use of technology

4.4.1 Communication skills

4.4.2 Proper use of technology

## STRESS MANAGEMENT

### Introduction

Today we are living in an age of science. Human life has become dynamic as per the scientific progress. While reaching at the zenith of success and progress man is finding days, months, years and even his whole life very short day by day. In the mo-



tion of this temptation everyone is losing health. The traditional tools of motion are inadequate to him. He feels need of more speedy appliances than the speed of his thoughts.

The world has come too close because of the progress of information and technology. Everyone's passion has increased to control over the whole world and information. This has created fierce competition in human life. This competition has burdened an unknown stress on human mind. Man has lost his natural life and living because of this stress. Surrounding stress and adverse physical and psychological effects have affected his daily life.

Mobile screen has become more important instead of the rising sun after getting early in the morning. Man has suffered from various diseases which are created by stress from dawn to dusk. These diseases make human life more stressful. This increases incompetence. It affects personal, social and national progress. To avoid this damage, we have to strengthen the students to face the stresses bravely.

### Objectives

- 1) to help the students to understand the nature of stress and to make them aware of its effects.
- 2) to explain the students the factors which create educational, social and family stress.
- 3) to help the students to explore the solutions on effects of stress.
- 4) to try to make educational life of students tension-free.
- 5) to help the students to think positively about stress.

### Standard IX

#### 5.1 Nature of stress

##### 5.1.1 Positive effect of stress.

##### 5.1.2 Negative effect of stress.

##### 5.1.3 Hyper stress

##### 5.1.4 Hypo stress.

#### 5.2 Causes of stress

##### 5.2.1 Situational causes

##### 5.2.2 Personal causes

#### 5.3 Effects of stress

##### 5.3.1 Positive effects

##### 5.3.2 Negative effects

#### 5.4 Overcoming stress.

##### 5.4.1 Handling family issues

##### 5.4.2 Addressing changes in personality traits.

##### 5.4.3 Addressing the degree (severity) of stress.

##### 5.4.4 Managing stress.

### Standard X

#### 5.1 Review of syllabus of Std. IX

#### 5.2 Analyzing the stress of self.

##### 5.2.1 Analyze reasons of stress.

##### 5.2.2 Analyze effects of stress.

#### 5.3 Overcome self stress.

##### 5.3.1 Methods to overcome stress.

##### 5.3.2 Managing stress

### LIFE SKILLS

#### Introduction

In order to lead a successful life every individual has to acquire certain skills. These life skills are acquired at different stages and is a long term and continuous process. Some skills are visible, some invisible, some tangible and some intangible.

Life skills such as planning, communi-



cation, problem solving and leadership need to be internalized for an effective growth. Life skills broadens the horizon of students personality. It addresses the basic skills required for an effective personality-balancing the internal and external development and its reflection, making one's personality to be accepted with ease.

### Objectives

- 1) to help students understand life skills
- 2) to help students to develop effective planning and communication skills.
- 3) to help students to develop good presenting skills
- 4) to help students to be focused.
- 5) to help students to develop creativity, problem solving skills and leadership skills.

### Standard IX

- 6.1 Planning skills
  - 6.1.1 Planning
  - 6.1.2 Systematic thinking
  - 6.1.3 Systematic execution
- 6.2 Communication skills
  - 6.2.1 Knowledge of the subject
  - 6.2.2 Clarity
  - 6.2.3 Expressions and body language
  - 6.2.4 Analytical thinking
- 6.3 Presentation skills
  - 6.3.1 Art of speaking
  - 6.3.2 Etiquette
  - 6.3.3 Art of dressing
- 6.4 Life skills for quality living

6.4.1 Goal setting (social and professional)

6.4.2 Target

6.4.3 Strategy

### Standard X

- 6.1 Preparing for college
  - 6.1.1 Initiative
  - 6.1.2 Career counseling (workshop)
  - 6.1.3 Handling peer pressure
  - 6.1.4 How to tackle ragging
- 6.2 Creative thinking
  - 6.2.1 Innovative thinking
  - 6.2.2 Analytical thinking
  - 6.2.3 Critical thinking
- 6.3 Problem solving skills - Practical case study
  - 6.3.1 Brainstorming session
    - 6.3.1.A. Group discussion
    - B. Logical Analysis
    - C. Logical elimination of nonrelated issues.
- 6.4 Leadership skills
  - 6.4.1 Motivation
  - 6.4.2 Team Building
  - 6.4.3 Power sharing

## DISASTER MANAGEMENT

### Introduction

In day to day life, human beings face natural calamities like deluge, flood, land slide, fire, earthquake and tsunami.

Like the various natural calamities, human errors lead to road fatalities domestic accidents and riots. They are the fall out of irresponsible thinking and behaviour of humans which one has to face.



It is beyond our control to completely stop natural calamities. However, it is possible to reduce the damages to people and property by creating awareness and warning through the use of media, government and social institutions.

The process of initiating to control the damage is 'Disaster Management'.

This lesson is being introduced to create an understanding and awareness among the students.

### Objectives

- 1) to explain what is 'Disaster Management'.
- 2) to understand the implication of natural calamities as well as disaster caused by man.
- 3) to understand the techniques and skills of disaster management and implement the same to reduce the severity of the damages.
- 4) to introduce social awareness and how to rehabilitate affected people.

### Standard IX

7.1 What is 'Disaster Management'?

7.2 Earthquake

7.2.1 Damages due to earthquake

7.2.2 Actions during earthquake

7.2.3 Actions post earthquake

7.3 Floods

7.3.1 Reasons

7.3.2 Precaution and prevention

7.3.3 Actions during floods.

7.3.4 Actions post floods.

7.4 Fire.

7.4.1 Reasons that cause fire.

7.4.2 Actions post fire.

7.5 Epidemic - diseases due to contaminated water.

7.5.1 Information about diseases through contaminated water.

7.5.2 Reasons for water getting contaminated and prevention.

7.5.3 Personal hygiene and importance of clean and healthy living.

7.6 Road Accident.

7.6.1 How do road accidents take place.

7.6.2 Precautions to be taken by the students and families.

7.6.3 Precautions to be taken by driver.

7.6.4 Instructions given by the head of school.

### Standard X

7.1 Revision of the concepts in standard IX.

7.2 Assistance for disaster management and first aid facility.

7.2.1 What is disaster, categories of disaster and First-aid.

7.2.2 The function of individual and group members.

7.2.3 The importance of first-aid during disaster.

7.3 The techniques of life saving, help and shelter during disaster.

7.3.1 Methods and help for earthquake victims

7.3.2 Methods and help during floods

7.3.3 Methods and help during fire.

7.3.4 Methods and help for road accident victims.

7.3.5 Arrangement of shelter during disaster.



7.4 Group Activity and planning for disaster management.

7.4.1 Plans for village/ward.

7.4.2 Formation of volunteers' groups.

7.4.3 Rehabilitation and reconstruction.

7.4.4 Feedback and evaluation.

## ANTI TERRORISM

### Introduction

Every individual has a right to live happily. Man is social by nature. Individuality coupled with peaceful happy co-existence is the epitome of living.

Ironically, the world is inhabited by people of all kinds that include barbaric, cruel, antisocial and the insensitive.

When such people let their actions prevail upon the society, terrorism is born. In general, terrorism's fundamental reasons are Religion, Regional language, caste and different thoughts. Today terrorism is not only limited to any one country but has spread the world at large.

This chapter will create an awareness in students about the causes and ill effects of terrorism.

In order that the society is not inflicted

with the seed of terrorism, this unit is being introduced.

### Objectives

- 1) to provide students information on terrorism
- 2) to inform students the causes and effects of terrorism
- 3) to make students aware of various measures to fight terrorism
- 4) to make students aware of measures to uproot against terrorism

### Standard IX

8.1 Terrorism : Nature, history and causes

8.1.1 Nature and effects of terrorism

8.1.2 History of terrorism

8.1.3 Causes of terrorism

### Standard X

8.1 Review of syllabus covered in Std IX

8.2 Spread of terrorism and fighting against it

8.2.1 Uprooting of terrorism

8.2.2 Various ways of uprooting terrorism

( group discussion, speeches, street plays, public awareness etc.)







9

# WORK EDUCATION

## Group A

### (J-I) ELECTRICAL APPLIANCES

Std. IX

#### Introduction

In modern times electrical appliances constitute an integral part of life. Man has been discovering of new electrical appliances to make his life comfortable. According to needs, various versions of new appliances are also available. Therefore, it is essential for the students to be familiar with electrical appliances. The students should get familiar with different electrical terminologies such as electrical circuits, conductors, insulators. The students should also know about different electrical hand-tools, the skill of their use and precautions to be taken while handling these tools. The students get familiar about the information of the electrical appliances, different methods of their handling and precautions to be taken while handling these appliances. They get familiar about dismantling, testing and reassembling of electrical appliances. Therefore, it is obligatory to include this syllabus into the work education subject.

To teach the syllabus effectively, it is expected to make use of audio-visual aids to maximum. Similarly, to create interest among students about the opportunities in the field of electricity.

#### Objectives

1. To get the information of electrical terminologies electrical circuits
2. To be familiar with safety precautions to be taken while handling electrical appliances.
3. To acquire skills of handling different electrical hand-tools.
4. To know about conductors insulators used in regular practice.
5. To acquire knowledge of different electrical appliances, their functions, construction & uses.
6. To create a sense among students about the opportunities of careers in electrical field.
7. To create awareness among students about electrical energy saving.

#### Theory

##### Topic No. 1

Current Electricity and safety precautions

voltage, current, resistance, power, energy

(Definition, units, measuring instruments used for above quantities), Safety precautions while handling electrical appliances and electrical work. (First aid treatments).

Calculation of energy bill. Electrical symbols.

##### Topic No. 2

Types of Electric Supply and circuits.

- AC supply – 1 phase , 3 phase (Introduction and uses)
- DC supply – (Introduction and uses)
- Difference between AC and DC supply.
- Connection of resistances in series and parallel.
- Open circuit and short circuit



- Generation and effects of Electricity  
(Kinds, methods of Generations and transmission in figure)

Effects of Electricity

1. Physical Effects
2. X-ray effects
3. Thermal effects
4. Light effects.
5. Chemical effects.
6. Magnetic effects.

### Topic No. 3

Electricians common tools (Figures, Information, uses only)

- Combination pliers, long nose pliers.
- Wire stripper
- Screw drivers
- Hammers, Hack-saw.
- Neon testers
- Electrician Knife
- Rawal punch, poker, centre punch, Tri square
- Measuring Tape and steel rule
- Hand drill machine.
- Soldering Iron
- Test Lamp, Series Test lamp
- Plumb bob, Level bottle

(students need not be asked to draw figures)

### Topic No. 4

Wires & Cables

Conductors, Insulators (Explanation of uses of conductors and Insulators by diagram.)

- Types of uses of wires, current, capacity.

- Types of uses of cables, current, capacity.

### Topic No. 5

Electric Iron and Reflector Type Room Heater.

- Types: electric iron, working principles
- Construction and testing of common iron, faults and repairing of common iron.
- Room heater construction and working principle (Reflector type)
- Room heater checking, repairing.

### Topic No. 6

Electrical stove, Toaster Types, construction, testing, repairing.

### Topic No. 7

Immersion Heater and Gyser

Working principles. Types of Gyser, construction, checking and repairing.

### Topic No. 8

Electric water purifier and Microwave oven

- Working principle
- Construction
- Uses
- Precautions while handling

### Practical

- 1) Measurement of voltage, current using voltmeter and ammeter and calculation of power of 200 watt lamp.
- 2) Connection of resistances in series and measuring voltage, current.
- 3) Connection of resistances in parallel and measuring voltage and current.
- 4) Making test lamp and checking supply with test lamp & neon tester.



- 5) Making a series test lamp and testing a given electric appliance [OC/SC and earth test]
- 6) Checking polarity of DC supply.
- 7) Making wire joint and soldering.
- 8) Dismantling, testing and finding fault & repairing of given appliance.
  - i) Electric Iron.
  - ii) Electric Stove.
  - iii) Immersion Heater.
  - iv) Reflector type Room Heater.
- 9) Testing of given appliances
  - i) Electric Geyser
  - ii) O.T.G (Oven Toaster – Griller)

### **(J-1) ELECTRICAL APPLIANCES**

**(std X)**

#### **Introduction**

In modern times electrical appliances constitute an integral part of life. Human being has been finding different kinds of new electrical appliances to make his life comfortable. According to different needs various versions of new appliances are also available. Therefore, it is essential for the students to be familiar with electrical appliances, electrical house wiring and the materials used for it. Students should get familiar about different illuminating lamps and different electric motors. Knowledge regarding dismantling, testing, reassembling of electrical appliances is essential. Student should know about use of non-conventional energy sources for generating electricity and should know about the electrical energy storage devices.

According to today's need, it is essential to make use of energy saving appliances and also to use CFL, LED lamps, which contribute a lot in saving energy.

Information about this is included in the syllabus.

For effective teaching, use of multimedia is expected. It is expected to create interest among students about the career opportunities in the sector of electricity.

#### **OBJECTIVE**

1. To get knowledge about wiring as well as materials & accessories used for wiring.
2. To get knowledge about illuminating equipments.
3. To get knowledge about different electric motors used in electric appliances.
4. To make students familiar with different electrical appliances their working, construction & repairing.
5. To create interest about different career opportunities in electrical field among children.
6. To get knowledge about non-conventional energy sources (solar energy) & how the electric energy is generated from solar energy & to know about electric energy storage devices.

#### **Theory**

##### **Topic No.1 Wiring**

- Wiring accessories
- Types of Wiring
  - 1) Conduit Wiring
  - 2) Casing Capping Wiring
  - 3) Concealed wiring
- Testing of polarity of wiring by test lamp
- Earthing – need of Earthing  
Types of Earthing - Pipe Earthing  
– Plate Earthing



## **Topic No.2**

### **Illumination**

#### **Incandescent lamp**

Fluorescent tube set – with winded choke, with electronic choke.

Mercury Vapour lamp, Sodium Vapour Lamp.

Hallogen Lamp

CFL – Compact Fluorescent Lamp

LED Lamp

Wattage and Lumens of all above lamps

## **Topic No.3**

Motors Used in Electrical Appliances

Capacitor motor - Capacitor start motor

Permanent capacitor motor

Shaded pole motor

Universal motor (Structure and function of all the above motors)

## **Topic No. 4**

Electric Mixer and Food processor. Construction and working.

Testing and repairing (at spare part replacement level)

## **Topic No. 5**

Electric fans and Room coolers

Type of Electric Fans

Ceiling Fan – Construction, Working, testing, repairing.

Table Fan – Construction, Working, testing, repairing.

Room coolers – Construction, Working, testing and repairing.

(at spare parts replacement level)

## **Topic No.6**

Refrigerator, Vacuum cleaner and washing machine.

Refrigerator – Introduction, Construction, Working.

Vacuum Cleaner – Introduction, types. Construction, Working

Washing Machine - Introduction, Types Construction, Working

## **Topic No.7**

Rechargeable Batteries

Battery – Introduction Types Applications

Lead Acid Battery – Construction and working

Charging

Maintenance

Dry Batteries – Construction and working

Charging

Maintenance

Portable Rechargeable Torch

Construction and working

Uses

Solar Panel :-

Construction and working

Uses

## **Practicals**

- 1) Controlling separately two lamps from two places in casing capping wiring
- 2) Staircase wiring using conduit fitting and saddles.
- 3) Wiring and testing of fluorescent tube set.



- 4) Dismantling, testing and reassembling of electric mixer.
- 5) Dismantling, testing and reassembling of electric ceiling fan.
- 6) Making of series parallel testing board and testing table fan.
- 7) Switch board wiring practice.
- 8) Testing and repairing of portable rechargeable torch.

## **( J-2) BAKERY PRODUCTS**

**Std : IX**

### **Introduction**

In modern times, joint family system has been replaced by nuclear families. All earning members, women members also, have to stay away from home for a longer period. This has changed the dietary pattern of families. Consumption of “Ready to eat” items is increasing rapidly. This has flourished bakery and confectionery business.

Quality production of bakery items, requires basic scientific knowledge about raw material supported by specific skills. In preparation of bakery products along with skills it is also very important to follow the rules of hygiene and sanitation. Considering these points this course is specially designed to impart basic knowledge and modern techniques of bakery and confectionery. This will help to develop entrepreneurship attitude in students and make him/her economically self sufficient.

### **Objectives**

To enable the students to :

- 1) Get scientific and technical information regarding basic raw material required for bakery and confectionery products and their functions and characteristics.
- 2) Know about equipments used in bakery and confectionery.

- 3) Develop & inculcate habits of hygiene and sanitation during production of bakery and confectionery products.
- 4) Develop scientific and technical skills for quality production.
- 5) Be economically self sufficient by sell of bakery and confectionery products.
- 6) Develop entrepreneurship attitude.

### **Theory**

1. Introduction of big & small equipment used in bakery & confectionery.
2. Importance of hygiene & sanitation bakery.
3. Functions & Characteristics of raw material used in bakery & confectionery.
4. Process & methods of preparation of bakery & confectionery products.

### **Practical**

#### **1. Types of biscuits**

- (a) Nankatai
- (b) Jeera Biscuits
- (c) Groundnut biscuits

#### **2. Types of cak**

- (a) Plain cake
- (b) Cup cake with glaze icing

#### **3. Types of bread**

- (a) Ladi pav

#### **4. Papdi & Chikki Confectionery**

- (a) Til Papad
- (b) Groundnut chikki

#### **5. Visit a commercial bakery unit & write a report**



## **(J 2) BAKERY PRODUCTS**

**( std : X )**

### **Introduction**

Now a days nuclear family pattern life style is rapidly increasing, therefore need of “ready to eat” products is also increasing. Consumer of all age group relish bakery & confectionery products. More importance have been gained to them due to fast growing demand.

The major products of bakery & confectionery are Biscuits, Cakes, and Bread. Application of modern technology principles of food science, accuracy in preparation are basic requirements of good quality, long lasting products.

Hands on training with the help of actual work experience by learning – teaching method can be imparted in this subject. Introduction of such professional skill oriented subject at school level will help students to choose their career for future.

### **Objectives**

To enable the students to :

1. Understand characteristics of ideal cake, biscuit & bread.
2. Acquaint with probable faults in biscuits, cake & bread products.
3. Understand reasons behind biscuits, cake & bread products & know the remedies.
4. Develop skills in packaging bakery & confectionery products.
5. Learn to calculate selling price of bakery & confectionery products.
6. Develop skills in preparation of biscuits, cake & bread & burfi.
7. Learn to decorate cake with icing.
8. Learn quantity production and sell of bakery products.

### **Theory**

1. Characteristics of ideal biscuits, cakes & bread
2. Fault in biscuits, cakes & bread – reasons & remedies
3. Packaging of bakery & confectionery products.
4. Calculation of selling price of bakery & confectionery products

### **Practicals**

1. **Types of Biscuits**  
(a) Ragi (Nachni) biscuits  
(b) Sweet & Salty biscuits
2. **Types of cakes & icing**  
(a) Pound cake & Butter icing  
(b) Chocolate cake
3. **Types of bread**  
(a) Fruit bread
4. **Sugar Confectionery**  
(a) Khoa Burfi
5. **Production & Sale of 15 servings of any two products from IX & X syllabus**  
List of Equipment required for Bakery & Confectionery practicals -
  1. Laboratory
  2. Oven – O.J.T.Electric oven
  3. Domestic cooking burner (L.P.G.)
  4. Table – with marble or granite or stainless steel top.
  5. Weighing scale
  6. Aluminium tins
    - a. Cake tin – 6 to 73 round
    - 6 to 73 square





- b. Baking tray – should fit in the oven
  - c. Cooling racks.
  - d. Biscuit cutters – round/fancy shape
7. Stainless steel equipment
- a. Thali (Parat)
  - d. bowl with lid
  - b. flour sieve
  - e. Serving spoons
  - c. Vessel with lid
  - f. Tongs  
(1 to 2 lit capacity)
8. Kadai – hindalium
9. rolling pin
10. Set of small equipments
- a. Measuring cups
  - h. Nozzles
  - b. Measuring spoons
  - i. Piping bag
  - c. Wooden spoon
  - j. turn table
  - d. Scraper/dough cutter
  - k. Bread knife
  - e. Pallet knife (for icing)
  - l. Vegetable knife
  - f. Spatula (plastic)
  - m. fork
  - g. Spring egg beater
  - n. Scissor
  - o. Lighter/match box
11. Clean napkins – Turkish & plain. Muslin cloth

### ( J-3) FOOD PRESERVATION

Std : IX

#### Introduction

Fruits & Vegetables are important in the diet. They provide mainly minerals & vitamins & bring variation in taste, colour, flavour & texture. One disadvantage of fruits & vegetables is that they are perishable. During a season, those are available in large quantities & are cheap and nutritious. Due to technological progress, there is enormous production of fruits & vegetables. It can be therefore processed when available in large quantities & preserved for the whole year. This can help a person to earn his livelihood or develop a small scale enterprise.

#### Objectives

- 1) To learn to classify food according to shelf life.
- 2) To understand importance of food preservation.
- 3) To know principles & methods of food preservation.
- 4) To develop skill in handling equipment used for food preservation.
- 5) To develop the skill in freezing, preparing squash & synthetic syrup.
- 6) To learn to pack preserved products.
- 7) To learn to put appropriate label on preserved product.

#### Theory

- 1) Classification of food according to its shelf life.
- 2) Food preservation – importance, principles & methods.
- 3) Equipment used for Food Preservation.
- 4) Freezing vegetables.
- 5) Squash.



- 6) Synthetic syrup
- 7) Preparation of label & costing of the preserved product.

#### **Practical :**

- 1) Freezing – peas / spinach / carrot / corn / French beans.
- 2) Preparation of squash – lemon / orange / pineapple.
- 3) Preparation of synthetic syrup – Rose / Khus / orange.
- 4) Preparation of tomato sauce
- 5) Dehydrated products – Sago papdi, Sandage, Grated Potato  
Arrowroot Kurdai, Papad.
- 6) Preparation of muramba – Amla, Raw mango, karwand.

### **(J-3) FOOD PRESERVATION (Std.X)**

#### **Introduction**

In olden days, sugar, salt and oil was used to preserve different foods. After few years, with advances in food chemistry, different chemical food preservatives were developed which were used in preserved food products.

Now a days, new methods of packaging preserved products are developed which have increased the shelf life of these products. There is a big market for the preserved products. This has created various opportunities for the students in the field of food preservation. Scientific study of this subject will help the student to develop small scale enterprise in the future. This will also help to achieve the Objectives of NCF 2005 and SCF 2010.

#### **Objectives**

- 1) To learn to classify the food preservatives.
- 2) To know the functions of different food preservatives.
- 3) To develop skill in preparation of jam.
- 4) To develop skill in preparation of jelly.
- 5) To understand principle behind dehydration of fruits.
- 6) To learn to dehydrate fruits.
- 7) To know the principles of preserving pickles.
- 8) To learn to prepare pickles.
- 9) To develop skill in preparation of mixed spices.

#### **Theory:**

Food preservative –

- a) Natural – Sugar, Salt.
- b) Artificial – Sodium benzoate, Potassium meta bisulphite, Acetic acid / vinegar, Citric acid.

- 1) Jam
- 2) Jelly
- 3) Dehydration of fruits
- 4) Pickles
- 5) Dry chutneys
- 6) Packaging

#### **Practical**

- 1) Preparation of Jam – Mixed fruit / Apple / papaya.
- 2) Preparation of jelly – Guava / wood Apple.
- 3) Preparation of raisins
- 4) Preparation of tamarind sauce
- 5) Preparation of pickles – Raw mango / mixed vegetable / Fresh turmeric and Green Chilly.





- 6) Preparation of masala – Goda masala, Garam masala, milk masala, Tea masala, Buttermilk masala.
- 7) Packaging of preserved products.

#### **( J-4) MAINTENANCE AND ELEMENTARY REPAIRS OF WATER PUMP**

**Std : IX**

#### **Introduction**

According to the new National education policy, it is an objective of quality education to train all students to participate in their own society and in the global economy

Considering the needs of the students of 21st century, the subject, 'Maintenance and Primary, Repairs of Water Pumps' has been introduced in 'Work Education'.

Total 34 activities are included in 'Work Education' of Std.IX. They are divided into two parts – Theory and Practical. Some activities are practical – oriented.

Due to heavy rain-fall, plenty of water was available on the earth, in early days. But day-by-day, due to less rainfall, the storage of water is becoming less. The level of water under the earth is also decreasing.

It is essential to bring the underground water up on the earth to fulfil the need of water of ever-growing population. The man has prepared various types of pumps to bring deep underground water on the earth.

The objective of the syllabus is to give the knowledge to students about how these various types of pumps should work properly and how to keep their maintenance time-to-time and their repairing.

In some areas, there is scarcity of pure and drinkable water. After considering the importance of pure and clean water, it is necessary to use it properly. Also, it is necessary to stop its pollution. With the help of this subject we should make the student aware of all these things.

It is necessary to prepare a skilled pump-mechanic to find out faults and repair them. If the students get the proper guidance of vocational education, they may become skilled-workers and through self-employment this can stand on their own, Considering the importance of self-earning and knowledge this subject is included in the syllabus of Std.IX.

#### **Objectives**

To enable the students to-

- Give information about various water pumps.
- Give information about various parts of water pumps and their structure.
- Give information about taking care and repairing of water pumps.
- Give information about tools used for assembling and repairing of water pump
- Understand the functioning and principle of water pump.
- Create interest about the skills of pumps repairing.
- Create awareness about water management.

#### **Theory:-**

- 1 Introduction of hand pumps, their principle and structure
- 2 Functioning of hand pump.
- 3 Installation of hand pump.
- 4 Maintenance and care of hand pump.



- 5 Faults in hand pumps –causes and remedies.
- 6 Tools for hand pump repairing.
- 7 Introduction of the centrifugal pump.
- 8 Parts of centrifugal pumps and its functioning.
- 9 Selection and installation of centrifugal pumps.
- 10 Maintenance and care of centrifugal pump.

#### **Practical**

- 1 Practical of the functioning of the hand pumps.
- 2 Dismantle, assembling and testing the hand pumps.
- 3 To observe the functioning of centrifugal pump.
- 4 Dismantle, assembling and testing the centrifugal pumps.
- 5 Dismantle and assembling of footvalve

### **(J-4) MAINTENANCE AND PRIMARY REPAIRS OF WATER PUMP. STD.- X**

#### **Introduction**

According to new National education policy, it is an objective of quality education prepare the students to participate in own society and in the global economy.

Considering the needs of the students 21st century, the subject 'Maintenance and Primary Repairs of Water Pumps' has been introduced in 'Work Education.'

The S.S.C. Board has the broad vision for the subject 'Work Education' (J 4) Considering the local conditions of schools, need of the society, attitude of the students and availability of material; the new activities

can be included in 'Work Education.' But permission of the Board is necessary. In overall development of students, knowledge, emotions, physical fitness is expected.

As per changing period new subjects and problems are arising. It will be beneficial from the point of view of society and students to include the new activities in 'Work Education'. If any new activity by any school is included, it will be considered as the new activity in 'Work Education'. But the school should submit its proposal with all plans to the S.S.C. Board within time.

After the approval of S.S.C. Board the introduction, syllabus, Objectives, evaluation of new activity can be practised in the school. These activities are included in Group C. New activities can be found out for this group and the proposal should be submitted to the S.S.C. Board. More information will be available in S.S.C. Board.

#### **Objectives**

To enable the students to-

- 1 Give basic information about various Water Pumps.
- 2 Give knowledge about labour work and skill-full work.
- 3 Create awareness about dignity of labour.
- 4 Provide opportunity for 'Earn and Learn'.
- 5 Create ability and skill to select proper tools and instruments.
- 6 Develop qualities of team work, co-operation, tolerance and tenacity.
- 7 Help to increase productivity.
- 8 Motivate for small scale industry.
- 9 Understand importance of planning and functioning of organization in the process of production.



- 10 Take joyful experience of self creation.
- 11 Develop self discipline and confidence.
- 12 Develop ability of self-evaluation.
- 13 Achieve self-sufficiency while doing production and providing services.

### Theory

- 1 Prime know movers.
- 2 Installation of pump on foundation.
- 3 Functioning of pump.
- 4 Maintenance of pump.

### Practical

- 1 To connect the pump to the Prime-movers.
- 2 Priming of the pump.
- 3 Switch on and off the pump.
- 4 To remove the faults in the pump.
- 5 Proper maintenance of the pump.

## ( J-5) MILK AND MILK PRODUCTS

### Std : IX

### Introduction

Milk is one of the important ingredients in our daily diet. It is nutritionally very important but it is a perishable product. Processing is necessary for its use and preservation. Processing and preparation of milk products need a special skill and knowledge about milk. This course is designed specially so that the student can learn preparation of ice-cream, burfi, kulfi, shrikhand, paneer and other milk products. This will also provide to the student self employment.

### Objectives

To enable the student to

- 1) Understand composition of milk and its importance in the diet.
- 2) Know about various processes done on

milk.

- 3) Know the rules of hygiene and sanitation, to be followed during processing of milk.
- 4) Get information regarding milk products.
- 5) Develop skill in preparation of curds, butter milk, butter, ghee, chakka, kheer, flavoured milk, basundi and kulfi.
- 6) Learn serving and packaging of milk products.

### Theory

1. Importance of milk in diet.
2. Composition of milk.
3. Hygiene and sanitation.
4. Processing of milk.
5. Milk Products.
6. Serving and Packaging of milk products.

### Practicals

1. Preparation of curds, butter milk, butter & ghee.
2. Preparation of Chakka and Shrikhand.
3. Preparation of flavoured milk.
4. Preparation of Kheer.
5. Preparation of Basundi and Kulfi.
6. To visit dairy or/confectionery centre preparing milk products and writing a report.

## STD. X

### Introduction

Maharashtra State ranks fifth in the milk production per annum. It is one of the leading state producing milk products in confectionery (Mithai) shops.



To increase yield of milk, extensive cross-breeding and grading up programmes are undertaken for dairy animals.

The above status and growth pattern signifies that there are bright career options for dairy technology trained personnel in the dairy industry as well as for self employment. Introduction to the subject at early stage at school level is beneficial to provide a firm foundation for the future.

### Objectives

To enable the student to

- 1) Know different processes done on milk.
- 2) Know different milk products.
- 3) Develop skill in preparation of paneer, rosogulla, khoa, gulabjamun, pedha, burfi, milk shake and icecream.
- 4) Know the reasons for spoilage of milk.
- 5) Learn ideal methods of storage of milk.
- 6) Identify milk adulteration.
- 7) Calculate sale price of milk products.
- 8) Develop the skill of selling the milk products.

### Theory

1. Processing of milk
2. Various milk products.
3. Reasons for milk spoilage
4. Storage of milk.
- 5.
6. Calculation of selling price of milk products.

### Practical

1. Preparation of paneer and rasogulla.
2. Preparation of khoa.
3. Preparation of gulabjamun.

4. Preparation of pedha and burfi.
5. Preparation of milk shake.
6. Preparation of ice cream.
7. Identify 15 sellers of any two milk products and sell.

## ( J-6) INTEGRATED NUTRIENT MANAGEMENT FOR SUSTAINABLE AGRICULTURE Std : IX

### Introduction

The soil fertility is decreasing day by day and area under problematic soils is increasing due to the use of fertilizers. Moreover the prices of chemical fertilizers are increasing drastically, which force to do the judicious use of chemical fertilizers. This is only possible in integration of organic, bio and chemical fertilizers, so as to maintain crop productivity along with improvement / maintain in soil fertility. It will also help to minimize the environmental, soil and water pollution. As more than 60% population living in rural area and is dependent on Agriculture, this knowledge is not only useful to increase productivity with available resources but also it will be baseline for higher education in Agriculture

### Objectives

- 1) To know the role, deficiency symptoms and toxicity of different nutrients.
- 2) To know content of nutrient in various fertilizers.
- 3) To know the advance technology of fertilizers use and economy in fertilizers.
- 4) To understand the effective use of organic manures, bio fertilizers and chemical fertilizers.
- 5) Fertilizer management in problematic soils.



## Theory

1. **Introduction** :- Need for integration of nutrients for sustainable Agriculture
  - Definition, meaning and scope of sustainable Agriculture .
  - Integrated nutrient management.
2. **Essential Nutrient of crops**
  - Essential nutrients , beneficial nutrients and their functions.
  - factors attesting nutrient availability .
3. **Organic manures**
  - Importance , classification , nutrient content .
  - Preparation and enrichments of organic manures,
  - New technique of Insitu trash management in sugarcane ratoon.
  - Green manuring-scope advantages, disadvantages, methods , nutrient contents.
  - Industrial waste management -  
Use of bio methanation effluent of spent wash Spent wash – Press mud cake compost,  
sewage. Sludge etc & their scope and limitations.
4. **Bio fertilizers**
  - Importance , classification , scope and limitations. Methods of usage.

## Practical

- 1) Collection of soil sample for analysis .
- 2) Preparation of compost / F Y M .
- 3) Preparation of vermicompost / vermiwash .
- 4) Use of compost / F Y M / vermicompost / vermiwash in field.

- 5) Trash management in sugarcane .
- 6) Use of green manures in sugarcane ratoon and insitu.
- 7) Use of bio fertilizers -seed treatment , field application, application of drip / sprinkler spray.
- 8) Visit to industrial waste management project / Visit to nearest research centre / agriculture collage/ University.

## STD : X

## Introduction

Integrated nutrient management is at the centre of sustainable agriculture. Organic manures, bio fertilizers and chemical fertilizers are the three main components of nutrient management. The study of organic manures and bio fertilizers is already included in Std IX. However the third component i. e . chemical fertilizers is not covered in Std IX, so it is explained in detail in Std. X It will be helpful for judicious use of chemical fertilizers . This will help to obtain sustainable yield by effective use of available resources and chemical fertilizers. This knowledge is useful to obtain higher yield with minimum inputs. This knowledge is a base for higher education in agriculture.

## Objectives

- 1) To explain the technique of usage of chemical fertilizers.
- 2) To impart knowledge of nutrient requirements of crop.
- 3) To give knowledge recommended doses of fertilizers for various crops.
- 4) To understand the technology to obtain higher yield with low cost and available resources.
- 5) To understand the reclamation and fertilizers management of problematic Soils.



## Theory

### 1) Chemical fertilizers

Importance , classification of macro and micro nutrient fertilizers and their nutrient contents.

Methods of fertilizer application. Physical and chemical properties of chemical fertilizers.

Storage and transport of fertilizers Compound , complex and mixed fertilizers .

Preparation of mixed fertilizers , compatibility of different fertilizers.

Water soluble fertilizers.

Slow release fertilizers , coated fertilizers , cheats .

### 2) Deficiency toxicity & symptoms of nutrients

Role , toxicity and deficiency symptoms of macro and micro nutrients .

### 3) Recommendations of manures organic and chemical fertilizers

Important crops-cereals, pulses, and cash crops.

### 4) Nutrient management of problematic soil

Calcareous , acidic , saline , sodic , and saline sodic

soils - characteristics reclamation and nutrient management nutrient management in very shallow, undulating, unlevelled soils .

### 5) Organic farming

Merits and limitations

### 6) Integrated nutrient management :

Integrated use of bio fertilizers , organic manures and chemical fertilizers .

### 7) Use of chemical fertilizers

Blending of chemical fertilizers .

Use of fertilizers through drip .

Spraying of chemical fertilizers .

Soil testing and Fertilizers uses.

## Practical

- 1) Collection and identification of chemical fertilizers.
- 2) Calculation of fertilizers doses for different filed crops.
- 3) Time-table and methods of fertilizer uses.
- 4) Blending of urea with neemcake.
- 5) Enrichment of organic manures .
- 6) Use of micronutrients with organic manures .
- 7) Fertigation.
- 8) Folier application of fertilizers .
- 9) Visit to Agriculture centre / college/ university /

## (J-7) Tie and Dye

### (Std. IX)

## Introduction

Tie and dye is an ancient art. This art is originated from two Indian States Rajasthan and Gujarat. Hence these states are supposed to be the birth places of tie and dye. This handicraft has its own special place in this country and now it has been getting famous in the world. It is called 'Shibori' in Japan. Wax is used for this craft in Nigeria. In India it is called 'Bandhani'. It is easy to learn this art. The cloth is first tied with knots or thread and then dyed in colours. This creates beautiful images and the process is called bandhani. This art is still developing with great favour in Rajasthan and Gujarat.





Initially 'Bandhani' was used to prepare the cloth for 'Pagri' or headgear, but now it is used to make sarees, blouse, bedsheet, Punjabi suits, etc. These days such articles are exported to foreign countries and suitable income is generated.

Today's age is an age of modern technology. There are new trends, now a day's. Today's generation is also fascinated by bandhani. There is a scope for innovation in this craft. Anybody can learn tie and dye. It requires limited space and equipments. Once the student excels in this art, he or she can work with interest and sincerity. This art provides satisfaction of creating something new and can help in a earning.

Previously, teachers were not available for teaching this art but now a days teacher along with modern technology makes it possible for the student to learn it conveniently in a better way. He/she can bring innovative ideas in 'Bandhani' if he is trained right from Std. V

### Objectives

To enable the students to -

1. get introduced to the art of tie and dye
2. preserve this ancient art and develop creativity
3. know colour combination
4. learn to use this art on different types of fabrics.
5. get joy of self creation
6. use this art for him/herself
7. Persuade him/ her use this art for earning.

### Theory

#### Units

1. Information about tie and dye and its use.

2. Types of fabrics needed for bandhani.
3. Material needed for tie and dye.
4. Methods of putting knots and types of tying the cloth
5. Information about dyes.
6. Methods of dyeing
7. Precaution to be taken while dyeing and untieing the cloth

### Practical

#### Unit 1

- 1.1 Various types after tying with thread
- 1.2 Bandhani work using needle and thread.
- 1.3 Bandhani work by putting knot

#### Unit 2

- 2.1 Dyeing four handkerchiefs in one colour
- 2.2 Dyeing a scarf in single colour.
- 2.3 Dyeing a top in two colours.
- 2.4 Dyeing a dupatta (Length 2 mts.)  
Or a border (2 mts.) in two colours.

### (J-7) Batik Work

#### (Std. X)

### Introduction

Man is gifted with various art and crafts from ancient times and these are passed on from generation to generation. Each art has its own importance and place.

Batik is one of such ancient arts. It is originated in Indonesia in the 2nd century A.D. and later developed more in the 16th century in Java Island. Gradually, it got propagated in America, Europe, China, Japan, India and other countries. In India, this art was developed at 'Shanti Niketan' in West Bengal. The word 'Batik' is originated from Indonesian the word 'Batik' or 'tik' which means trickling. To resist the dyeing of certain



parts of a cloth, it is covered with wax to create attractive and beautiful work of art. This is called 'Batik' which became more popular because of Indian contribution to its spread.

Batik is popular even in today's modern world. Previously people used to learn it as a hobby but today it can be a great source of income. Wall hangings of Ajanta, Ellora and Khajuraho figurines prepared by batik method are main point of attraction for Foreigners. Many cities have schools/institutes which teach batik art. A village called 'Cholamandal' near Chennai in South India runs a huge batik work business. With the encouragement from a Swedish institute called 'Swalo', the women of this village do this work with a lot of interest.

Previously, natural designs like animals, birds, fruits, vegetables, mountains etc. were prepared by batik work. Now a days even more beautiful modern designs are created. Variety of materials like sarees, bedsheets, dressmaterial, files, greeting cards, leather goods are prepared by using batik work. These articles are exported to other countries to a great extent with mastery through practice and creativity, this art can provide livelihood to students if it is taught from Std. X. He/she can start business and start earning. In today's modern technological world, students can enable themselves using slide shows, video compact discs along with a good batik teacher.

### Objectives

#### To enable the students to

1. get introduced to the art of batik.
2. get joy of learning batik themselves.
3. conserve this ancient art.
4. develop their creativity
5. introduce things needed for batik work and colour combinations.

6. know how to use this art practically by learning it thoroughly.
7. develop production ability by self creation.

### Theory (A)

1. Information about batik work.
2. Importance and types of fabric used for batik.
3. Knowledge of material used for batik like wax, chemicals, etc.
4. Chart of proportions for using Brenthol and Naphthol dyes.
5. Method of applying wax on cloth
6. Method of preparing dyes and procedure of dyeing.
7. Method of removing wax.
8. Importance and use the of Batik art.

### Practical (B)

#### Unit - 1

- 1.1 Printing design on cloth.
- 1.2 Applying wax on design.
- 1.3 Dyeing the waxed cloth.
- 1.4 Dyeing in single colour.
- 1.5 Dyeing in two colours.

#### Unit - 2

#### Preparation of following models.

- 2.1 Making two handkerchiefs in batik in single colour (size 16" x 16")
- 2.2 Making a frame/piece in two colours (size 15" x 20")
- 2.3 Making a border (Length 2 mts. Width 4")
- 2.4 Two greeting cards in two colours. (10 cms x 16 cms)





## **(J - 8) SCREEN - PRINTING**

**Std : IX**

### **Introduction**

The thought of future of the students and society is always first in the priority list of the process of education while deciding its Objectives. It is also necessary to think about the present of the students as it affects their learning. The content of the curriculum and the methods of learning should fulfil the need of the students.

It is important to use Information Technology while learning. Information Technology can be used easily and skilfully in the learning process of Screen Printing. This business can be started in limited space and time .

Various types of printing can be done through 'Screen Printing' Screen Printing can be done on various surfaces with the help on Screen. So there is a lot of scope is this art in the field of advertisements.

The students can print various types of educational material if they develop interest in this subject at their early age. This subject is included in Work - Education because - Screen Printing can be started with minimum capital. It doesn't need huge machinery. And it is very useful for the students in their future life.

### **Objectives**

#### **To enable the students to**

- 1) know the importance of printing.
- 2) get introduced to screen printing.
- 3) learn details of essential material needed for screen printing
- 4) learn to make simple stencils for screen printing.
- 5) preparation of screen for printing.

- 6) developing the qualities like teamwork, co- operation, perseverance to tolerance and neatness in the students.
- 7) make aware about the socially - useful products with the help of screen-printing.

### **Theory**

- 1) Importance of printing & screen printing
- 2) Difference between transfer and deposit printing
- 3) Method of screen printing
- 4) Material needed for screen printing
- 5) Making of simple paper stencils of different shapes & designs.
- 6) Precautions to be taken while printing, method of paper registration and drying of the printing stock
- 7) The method and importance of cleaning of screen printing tools.

### **Practical**

- 1) To make a stencil using thick paper & printing with it
- 2) To prepare a wooden frame for printing.
- 3) Prepare suitable design for screen printing
- 4) To print directly using screen
- 5) To dry the printed papers
- 6) To clean the tools used for screen printing

### **Equipments and Material needed**

#### **a) Material and tools needed for screen printing**

- 1) Wooden frame
- 2) Bolting cloth
- 3) Printing Board



- 4) P.V.A Solution
- 5) Sensitizer
- 6) Measuring jar
- 7) Coater
- 8) "G" or "C" clamp
- 9) Squeegee
- 10) Screen printing ink
- 11) Ink knife
- 12) Thinner
- 13) Scissors or cutter
- 14) Drawing ink
- 15) Painting brush
- 16) Tracing paper
- 17) Scale /ruler
- 18) Fevicol
- 19) P.V.C or brown paper tape (1.5"to 2")
- 20) Cello tape
- 21) Registration strips
- 22) Drying rack
- 23) Turpentine
- 24) Detergent powder or soap
- 25) Rag (waste hosiery)
- 26) Rough paper/news papers
- 27) Printing paper/card
- 28) Decoating or bleaching powder
- 29) Plastic mug

**b) Material needed for making stencil**

- 1) Thick paper
- 2) Nontearable paper
- 3) Blade, scissors, cutter
- 4) Pencil, scale

- 5) Brush
- 6) Black ink
- 7) Tracing paper
- 8) Different designs

**c) Material needed for stencil printing**

- 1) Cut stencil
- 2) Soft cloth /rag
- 3) sponge
- 4) Thick colour
- 5) Paper to be printed
- 6) Soap & water to wash hands
- 7) flat brush

**(J - 8) SCREEN PRINTING**  
**( Std : X )**

**Introduction**

Screen printing is one of the easiest methods of printing. Learning this technique can help to start a household business or cottage industry in limited space and time.

It is important to use information technology while learning. It can be very useful in learning screen printing technique with great ease and skill. Now a days, there are different methods of printing used in this printing world. Only plain printing is replaced by Screen printing, which is attractive and innovative printing to attract people. Screen printing is an effective medium to enhance beauty in printing by using different methods and techniques.

Invitation cards, wedding cards, greeting cards, office stationery, banners, badges etc can be prepared by screen printing, printing on paper, wood, plastic, glass, tin and even fabric is possible by this technique. There is lot of scope in advertising world to develop this art of printing since printing on circular, semi circular surfaces is



also possible using screen.

Screen printing is included in work education since the student's interest in this subject at a young age can make them aware of socially useful production.

### **Objectives**

#### **To enable the students to**

- 1) get introduced to screen printing
- 2) know the materials and tools needed for screen printing
- 3) learn the technique of quality screen printing
- 4) screen Printing with various colors
- 5) learn printing on plastic
- 6) screen printing on different educational materials needed in school.
- 7) screen printing on different shapes and textures
- 8) learn to manage marketing of screen printed articles by knowing expenditure and the technique of deciding the cost

### **Theory**

- 1) Importance & information of screen printing
- 2) Tools / material needed for screen printing
- 3) Multi colored printing
- 4) Printing on plastic
- 5) Printing different types of stickers
- 6) Printing on circular surfaces
- 7) Estimate of the production cost of screen printed article, and marketing skills
- 8) Modern screen printing techniques
- 9) Making screen with the help of cromolin film.

### **Practical**

- 1) Preparing screen with direct photograph technique.
- 2) Preparing art work (design)
- 3) Printing with various colors (Multicoloured printing)
- 4) Screen printing on plastic
- 5) Making stickers
- 6) Preparing screen for reuse
- 7) Making screen using cromolin film
- 8) Preparing an album of printed articles and estimate of expenditure.

### **Material & tools needed**

- 1) Wooden frame
- 2) Bolting cloth
- 3) Printing Board
- 4) P.V.A Coating solution
- 5) Sensitizer
- 6) Measuring jar
- 7) Coater scale
- 8) Cromolin film
- 9) 'G' / 'C' clamp
- 10) squeeze
- 11) Printing ink ( different colours)
- 12) Ink knife
- 13) Ink thinner
- 14) Scissors, cutter, blade
- 15) Pencil
- 16) Scale
- 17) Water proof black ink
- 18) Rotering pen
- 19) Painting brush
- 20) Tracing paper



- 21) Card sheet paper
- 22) Fevicol
- 23) Duco paint
- 24) Sticker gum
- 25) Silicon/ Release paper
- 26) P.V.C/Brown paper gum tape
- 27) Cello tape
- 28) Registration slip
- 29) Drying Rack
- 30) Stepple gun
- 31) Hammer
- 32) Plyer
- 33) Turpentine / Kerosene
- 34) Soap or detergent powder
- 35) Rag (Waste cloth)
- 36) Rough /old newspaper
- 37) Printing paper & other tools
- 38) De-coating powder
- 39) Bleaching powder
- 40) Plastic mug
- 41) Tap water
- 42) Thick glass
- 43) Black paper
- 44) Ply wood/wooden platform
- 45) Special gum for fixing cloth on frame.

## **(J - 9) HAND EMBROIDERY**

### **Std : IX**

Hand embroidery is a very popular art. Coloured threads and decorative materials are used to make attractive articles. By using multiple colour combinations and different stitches cloth can be embroidered.

This art has been developed through

fabric embroidery which is used for home decorations.

It gives satisfaction and pleasure of self-creation and gives an exposure to the hidden talent and aesthetic sense. This can be a source of income for students.

Indian hand embroidery includes stitches used all over the world. This art is spreading more with time. Different parts of India have unique embroidery forms that have great demand across the world.

### **Objectives**

- 1) To achieve satisfaction of self creation
- 2) To develop power of imagination
- 3) To learn the use of different stitches
- 4) To develop the skill of natural colour combination
- 5) To enhance concentration and patience
- 6) To develop aesthetic sense of hand embroidery

### **Theory**

#### **1) History of hand embroidery**

- 1.1. What is hand embroidery ?
- 1.2. Origin of hand embroidery
- 1.3. Expansion of hand embroidery

#### **2) Rules and knowledge of hand embroidery**

#### **3) Materials for hand embroidery**

- 3.1. Coloured threads
- 3.2. Needles
- 3.3. Cloth (Fabric)
- 3.4. Ring

#### **4) Methods of tracing and printing designs before Embroidery**

#### **5) Detail Knowledge of different stitches**



## Practical

- 1) Make samples of following stitches and paste it in your practical book
  - 1.1. Running Stitch
  - 1.2. Back stitch
  - 1.3. Stem stitch
  - 1.4. Chain stitch
  - 1.5. Buttonhole stitch
  - 1.6. Laisy - Daisy stitch
  - 1.7. Heir ringbone stitch
- 2) Prepare following Items
  - 2.1. Two cushion covers
  - 2.2. Six hanker chiefs or
  - 2.1. Two pillow covers
  - 2.2. Table cloth (Use stitches given in your syllabus)

## (J-9) HAND- EMBROIDERY ( Std X)

### Introduction

Hand-embroidery is a very popular art. Various objects can be prepared by using different coloured threads and decorative objects. An embroidery on a cloth is done by applying various stitches with proper colour- combinations.

This art is developed through home decoration and an embroidery on a cloth. The latent talents and aesthetic sense in students are developed because of this art. The students can get pleasure of self - creation. They can earn by using this art.

An Indian Hand-embroidery includes all types of stitches existing in the world. Its propagation is on a large scale. Hence, an embroidery work from different provinces in India has a great demand all over the world

## OBJECTIVE

To enable the students to-

- 1) get pleasure of self-creation
- 2) develop the skill of imagination
- 3) learn different stitches and their use
- 4) develop skill of natural colour combination
- 5) develop the ability of patience and concentration
- 6) develop the aesthetic sense in embroidery

### Theory

- 1) Specific material embroidery work.
- 2) Types of cloth.
- 3) Information about threads and needles.
- 4) Specialities of Indian embroidery.

### Practical

- 1) Prepare a notebook showing the specimen of the following stitches (Any six)
  - 1.1. Satin stitch
  - 1.2. French knot stitch
  - 1.3. Blanket stitch
  - 1.4. Cross stitch
  - 1.5. Mirror work
  - 1.6. Karnataka kashida
  - 1.7. Bead work
- 1) Prepare sofa cover and a purse
- 2) Embroidery work on Panjabi Kurta (Yoke or Buttas)  
or  
Buttas on a border of Dupatta or Dupatta



### **(K-1) STICHING WITH SEWING MACHINE AND ITS REPAIRING & MAINTENANCE** (Std : IX)

#### **Introduction**

Amongst the basic needs, clothing is one of the primary needs of every man. For this, it is essential to have (at least) a basic knowledge of sewing. Every time it is not possible for us to depend on a tailor for small works of sewing or stitching.

This art cannot be mastered easily and it requires able guidance from experts. It needs consistent practice. Stitching your own garments as per your need and fashion, not only gives satisfaction of self-creation, but also helps to save time and money. One can also save time and money if one learns the basics of the maintenance and repair of a sewing machine. The knowledge of both skills can then enable us to make this a source of income.

#### **Objectives**

##### **To enable the students to**

Give information about the sewing machine and its maintenance.

1. To develop the capability to repair a sewing machine at home.
2. Teach the skilful use of the sewing machine.
3. Give complete information about sewing and cutting.
4. Take the correct measurements, draw appropriate draft and stitch the garment accordingly.
5. After acquiring this skill and make its use for earning his/her bread and butter.

#### **Theory**

1. Basic knowledge about sewing machine and its spare parts.
2. Knowledge relating to repairing of a sewing machine.
3. Knowledge about the material required for sewing, e.g. tape, thread, cloth, needle.
4. Method of measurements and paper cutting technique of the following garments
  - 4.1 Bonnet (with lining and without lining)
  - 4.2 Diapers (for babies)
  - 4.3 Jacket (for 6 months to 1 year old baby)
  - 4.4 Zable (for 6 months to 1 year old baby)
  - 4.5 A-line petticoat (for one year old)
  - 4.6 Frock

#### **Practical**

Prepare any four of the following garments :

1. Bonnet -
  - a) with lining
  - b) without lining
2. Square diapers (for 2 months to 6 months baby)
3. Jacket (for 6 months to 1 year old baby)
4. Zable (for 6 months to 1 year old baby)
5. A-line petticoat (for 1 year old)
6. Frock

### **(K-1) STICHING WITH SEWING MACHINE AND ITS REPAIRING & MAINTENANCE** (Std : X)

#### **Introduction**

Along with food and shelter, clothing is the basic needs of man. Stitching proper fitting and decent clothes, and making them attractive and fashionable, is an art. Wearing





such attractive and fashionable attire makes a person confident and adds to his/her personality.

Developing the skill to stitch fashionable and trendy clothes for self gives a unique satisfaction. This also reduces the dependency on the tailor. It also saves time and money. If need arises, this skill can also be used as a source of income.

The knowledge about the sewing machine and its maintenance and repairing makes a person self reliant. One does not have to depend and wait for a mechanic.

For all the above mentioned factors, developing the skill of stitching has become a necessity.

### Objectives

To enable the students to -

1. Give information about the sewing machine and its maintenance.
2. To develop the capability to repair a sewing machine at home.
3. Teach the skilful use of the sewing machine.
4. Give complete information about sewing and cutting .
5. Take the correct measurements, draw, appropriate draft and stitch the garment accordingly.
6. After acquiring this skill to encourage it use for earning.

### Theory

1. The material required for stitching, and its uses
2. Information about the types of stitching, frills, plates e.g. box pleats, simple pleat etc.
3. Information about the types of sleeves and collars e.g. sleeve, puffed sleeve, regular cut, plain sleeve, collar, round

collar, square collar, stand collar.

4. Information about the material, measurements, method and pattern cutting for the preparation of the following items-

- 4.1 Frock
- 4.2 One side pleated or box pleated skirt.
- 4.3 Blouse for a pinafore dress
- 4.4 Half sleeves shirt
- 4.5 Simple 6 pleated saree petticoat
- 4.6 Salwar Kameez

### Practical

Prepare any four of the following garments -

1. Frock
2. One sided pleated or box-pleated skirt
3. Blouse for a pinafore dress
4. Half sleeves shirt
5. Simple 6 pleated saree petticoat
6. Salwar Kameez

## (K2) Dolls & Soft Toys Making Std : IX

### Introduction

Everyone in this world whether young or old is fascinated by dolls and toys. A child or an adult gets attracted towards a doll equally. Everybody wants a doll to play with and that's why it is an important part of a child's toy bank.

Dolls had been an important toy right from historic times. Even the excavations at Mohenj-e-Dado and Harappa revealed that children of that era played with dolls. This silent companion plays various interesting roles in a child's imaginary world. In today's mechanized world, the market is full of



electric, battery operated and remote controlled toys but every child may not be able to afford all of them. Making toys from waste material give enormous pleasure of self-creation to a child. He or she will be more unhappy if a self made toy breaks than a readymade one.

Doll making/toy making is an art. Home based easily available material like pieces of cloth, beads, thread, and wool etc. is enough for this. Use of innovative ideas and skillful hands can develop this art. The experience of toy making is very interesting and satisfying.

This tremendously imaginative art not only motivates the students to be creatively skillful but also gives them joy of self-creation. Such toys provide entertainment to children, improve their intellectual curiosity, give them joy of innovation and simultaneously adds to their knowledge. It also develops their sense of proportion, measuring and drawing skills. They observe various shapes and colors of animals and birds, thereby improve their observation power. Children get so involved in playing with toys that they imagine the toy to be a member of their family.

Doll and toy making art can provide means of livelihood. With the help of skillful hands and creative mind this art can be developed to a great extent.

## OBJECTIVE

To enable the student to

1. get the joy of self creation.
2. develop their power of imagination
3. develop their ability of observation
4. develop the insight to make best use of waste material
5. acquire knowledge of material needed for doll & soft toy making.

6. introduce various techniques & guidelines for making different types of dolls & toy making.
7. develop liking towards walking dolls with different attire.

## Theory

1. Providing knowledge of different kinds of textiles used for the purpose.
2. Giving knowledge of different kinds of toys
3. Information regarding the manufacture of various animals & birds.
4. Provide information related to making of dolls with various apparel.

## Practical

1. Dolphin
2. Mickey mouse pouch
3. Tortoise
4. Rabbit
5. Elephant
6. Doll
7. Joker using colourful pieces of cloth.
8. Doll/animal/bird for hanging.

## (K2) Dolls & Soft Toys Making (Std X)

## Introduction

Everyone in this world whether young or old is fascinated by dolls and toys. A child or an adult gets attracted towards a doll equally. Everybody wants a doll to play with and that's why it is an important part of a child's toy bank.

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silent companion plays various interesting parts in a child's imaginary world. In today's mechanized world, the market is full of electric, battery operated and remote controlled toys but every child may not be able to afford all of them. Making toys from waste material give enormous pleasure of self-creation to a child. He or she will be more unhappy if a self made toy breaks than a readymade one.

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Dolls and toy making art can provide means of livelihood. With the help of skillful hands and creative mind this art can be developed to a great extent.

## **OBJECTIVE**

### **To enable the students to**

1. make best use of waste material.
2. motivate themselves for self employment.

3. develop the ability of detailed and minute observation.
4. study different states, culture, geographic conditions and apparel.

## **Theory**

1. Making models of animals and birds.
2. Making manikin/mannequin (model of human being)
3. Making dolls
4. Making toys
5. Decorating

## **Practical**

1. Parrot
2. Dog
3. Camel
4. Teddy bear
5. Manikin from paper Mache'
6. Shell art
7. Female vegetable vendor
8. Doll's Attire
9. Dancing doll form plastic ball
10. Dancer using shells

## **(K-3) PREPARATION OF ARTICLES USEFUL FOR SCHOOL Std : IX**

## **Introduction**

In Student oriented education it is expected that by maximum utilization of abilities student should develop internal skills. In this development and application process teacher plays a very vital role. The principal objective of this knowledge and experience based education system is to provide proper facilities and environment to students.



There should be change and flexibility in the teaching- learning methods in due course. Making articles that are used in school helps to develop skill. Hence learning and experience should be joyful and interesting.

This is a work oriented activity, hence it can be used as a supplementary Aid to all subjects. To make teaching- learning process effective it is required to use various thought promoting educational equipments and aids. With the help of that students can understand educational concepts more easily. It will promote confidence and art creativity among students.

While preparing the material useful for school, the students will understand, the procedure of work, method of using techniques and materials, being creative leadership, problem solving etc. Hence self-experience is the key to 'students' progresses.

### Objectives

- 1) To help students to learn useful scientific principles in day to day life.
- 2) To develop the skill of taking measurements of objects like paper, cloth, cardboard, etc. and understanding techniques of making new and attractive articles from it.
- 3) Provide opportunity to develop creativity and acquire skill.
- 4) To develop scientific approach.
- 5) Use of articles made by students in their day to day life and promotes thinking and creativity.
- 6) To learn the concept of saving by using materials available.
- 7) Meaningful understanding and application of new definitions and subject oriented Terms and concepts.

- 8) To increase the confidence among students by all these Objectives.

## Theory SECTION-A

### creating articles useful for school

- 1) To prepare Duster  
Material :- wooden block or wooden block of used duster, piece of wooden cloth or sponge.
- 2) (A) To prepare envelopes of different types  
(B) To prepare envelopes by recycling of used envelopes  
A) Material: light yellow, light cream, colour lasor paper or white paper, glue, scissors, etc.  
B) Used envelopes, Recycling them by sticking white paper on them, scale, gum, scissors, Fevicol.
- 3) To prepare chalk:- plaster of perris (pop) or slacked china clay, Indigo ,grease oil etc.
- 4) To prepare Pen & Pencil holder  
Material:- Tin or Cardboard boxes of different sizes, coloured papers velvet cloth, Fevicol, lace, coloured beads, scissors
- 5) To Prepare 'Pins' cushion:-  
Material:- Plastic cup, Ice cream Cup, Saw-dust, Velvet paper, Khadi cloth pieces.
- 6) To prepare Map stand, Map bags:-  
Material:- White Khadi or raw cotton cloth, scissors, string, needle, use of sewing machine.
- 7) To prepare stamps and stamp stand:-  
Material:- Wooden block, Metal rod,



screw, thick cardboard, scissors, ply wood, Nails, Metal/ Tin round plate, colourful cloth, cotton, fibre pad ink.

### SECTION- B

#### 1) CHART OF STATIC STRIPS OF PICTURES:-

MATERIAL:- Cardboard, Butter-paper, tracing paper, scissors, Pencil, Fevicol.

#### 2) Making Educational articles from waste material.

(a) Stethoscope (b) Caged parrot (c) Simple Hydro Microscope.

Material:- Rubber or plastic tube, plastic tunnel, balloon, stickfast, cardboard, string colour, Pen, Pencil, glass bottle.

#### 3) Making Elevated, (Raised) Maps for different subjects.

Material:- Cardboard, White Drawing Paper Thermocol, scissors, cutter, Pencil

#### 4) Multiple Image Apparatus:-

Material:- Boxboard, Paper, Coloured cardboard, String.

#### 5) To prepare (Create) Birds and Animals.

Material:- Drawing Paper, Cardboard, Pen, Pencil, Colour, Scissors, Fevicol.

#### 6) To prepare beads frame

Material:- Two thin wooden frame, Ten thick metal wire of same size, Colourful beads, Nails, hammer.

### SECTION-(C)

#### 1) TO MAKE PINHOLE CAMERA

Material:- Empty chalk box. Carbon paper, gum, white tracing paper, Pins.

#### 2) To make Newtons Colour disc

Material:- Cardboard, Colour paper, Fevicol, Blade, Scissors.

#### 3) To make Dancing Doll

Material:- Plastic doll, metal wire, cup, saucer, string, marbles or metal balls of waste ball bearing.

#### 4) To Make Kaleidoscope

Material:- Transperant glass strips, round glasses, One milky round glass, Cardboard, Scissors, Blade, scale, Brown Paper, Design Marble paper Black craft paper, Fevicol, Tixo tape, Bangle pices.

#### 5) Multiple image apparatus

Material:- Cardboard, Paper, Mirrors, Texo tape, Protractor, Pencil, Candle, Match box.

#### 6) To make Wind cock

Material:- Brown Paper, Craft Paper, Fevicol, Pins, Scissors, Blade, Refill Point.

#### 7) Hit me or Balanced doll

Material:- Bulb, Balls of used ball bearing, Screw Driver, Hammer, Knife, Plastic doll, Cloth, Paper.

### PRACTICALS SECTION-(A)

### PREPAR ATION ARTICLES USEFUL FOR SCHOOL.

- 1) Dusters
- 2) Envelopes.
- 3) Chalk
- 4) Pen / Pencil Holder
- 5) Pin cushions.
- 6) Cloth bags to keep maps.



## SECTION-(B)

### PREPARE EDUCATIONAL AIDS

- 1) Static strips of Pictures
- 2) Educational articles from waste materials
- 3) Raised maps for various subjects.
- 4) (Tarang chitra)
- 5) Create Birds, animals
- 6) Frame form beads.

## SECTION-C

### PREPARE SCIENTIFIC APPARATUS

- 1) Pinhole Camera
- 2) Newton's coloured disc
- 3) Dancing doll
- 4) Multiple image apparatus
- 5) kaleidoscope
- 6) wind cock.
- 7) Hit me or balanced doll

### (K-3) PREPARATION OF ARTICLES USEFUL FOR SCHOOL (STD - X)

#### Introduction

In student oriented education, it is expected that by optimum utilization, students should develop their abilities.

Teachers play a very vital role in the process of development and application. The principal objective of the knowledge and experience based education system is to provide proper facilities and environment to the students.

In this new syllabus students are given opportunity to create articles by using their inbuilt capacity, art and skill.

Preparation of school articles, teaching aids, and modern scientific apparatus is one of the subjects of work education.

There should be change and flexibility in the teaching, learning methods in due course. We should be aware that learning to create school articles develop their skill and experience. It should be pleasant and enjoyable. It improves their scientific attitude and technical skill.

Articles made by students can be used in schools at different levels.

Their experience of making these articles can make them start their own business in future. It will solve the problem of unemployment upto certain level.

That is why this subject is useful.

#### Objectives

- 1) To learn the skill of making articles used in daily life by students.
- 2) To get information about their utility and daily usage
- 3) To develop students scientific approach
- 4) To learn the skill of making teaching aids with minimum expenses.
- 5) To learn the concept of saving by using materials available.

## Section A

### (Creating Articles for school)

#### Theory

- 1) **To prepare files of different sizes.**

**Material :** Card paper, binding cloth, brown paper, marble paper, laser paper, tape, lining paper.

- 2) **Port folios**

**Material :** Card board, binding cloth, brown paper marble paper, laser paper, tape, lining paper.



### 3) **Rolling Black Board**

Material : Rexine cloth, Black colour, Two wooden rods or pipes, string/ coir , measuring tape, tape/ scissors, brush.

### 4) **Flannel board**

Material : Flannel cloth , card board, thick card board, clips, tape, scissors, fevicol.

### 5) **Black board paint**

Material : Lamp carbon, water, lac, borex Pumice stone powder, camri) measuring jar, plastic tub or glass bowl, laddle, pounding store, brush, weighing scale.

### 6) **Preparation of Gum**

Material : Gelatine, Sorbitol (glycerine), salicylic acid or citronella, mathylated. spirit, water, measuring jar, weighing scale. glass beaker, spirit lamp or gas.

### 7) **Note books**

Material : Blank pages, from old note books, needle and thread, card board, Big nail, (to make holes), glue, binding cloth, coloured marble paper, scale cutter, pencil, fevicol.

### 8A) **Stamp pad Ink**

Materials : Glyserine or syrbitol, methulaed spirit, methyle violet, warm water, cold water, bottle fine ink.

### 8B) **Pen ink :**

Material : Hydrochloric acid, Acid Glycerine, Acitone or spirit, blue ink, crystals, Acacia gum, Carbolic acid, pherous sulphate, distilled water, plastic tub, measuring jar, weighing scale, scale glass, beaker or mug, cloth or paper to strain ink, glass bottles, fuinnel, dropper, glass straw.

### 9) **Paper weight**

Material : Medium sized flat based and smooth stone, colour, bindis, beads, (waste material), brush, fevicol, lace.

## **Section B**

### **(Preparation of educational aids)**

#### 1. **Preparation of Permanent charts**

Material : Drawing paper, coloured card board paper, Rexin Cloth, Pencil, sketch pens, coloured chalks thick card board, scissors, measuring tape, erasor.

#### 2. **Preparation of three dimensional model**

Material : Three strips of mirrors, card board or plastic pipes, milky and plain glass, pieces of coloured glass bangles, coloured beads, Bindis, coloured papers, scissors, glue.

#### 3. **Branius (Breno)**

Material : Piece of hard board, coated copper wire, ribit, battery, bulb, bulb holder, scale, pencil, drill machine.

#### 4. **Electric Bell**

Material : Elecric magnet, spring scale, one bell, one screw, wire, cell, wooden board.

#### 5. **Display board**

Material : Wooden frame hard board, wooden cloth, tape, scissors, hammer and nails.

## **Section C**

Preparation of various scientific equipments based on scientific principles.

Note :- Teachers should ask students to prepare any three of the following equipments.



1) **To make a small electric (battery operated) motor car.**

Material : Wire, Four plastic wheels, winding wire, wooden stick, long thick wire, simple gears, small electric motor cell, fevicol.

2A) **Solar Cooker**

Material : Stand, Black colour, small bamboo basket, Tiffin with aluminum handles, small round pieces of mirror wet soil.

2B) **Solar Cooker**

Material : To round Aluminum tiffins, black paper, silver paper, funnel, string, thermometer, scissors, fevicol.

3) **Wind mill**

Material : Canvas cloth or thick card board paper, round shoe polish tin, One dozen strips of one foot long bamboo or iron, measuring tape, pencil, Gum, scissors

4) **Water Wheel (mill)**

Material : Straw or pipe or empty ball pen refill, pen nib, water, rubber or wooden lid, tray, blade, pencil

5) **Visionary Toys**

Material : Ball pen refill, round plastic lid, Pencil, Gum, scale, Protractor, eraser scissors. etc.

6) **Periscope**

Material : Two empty card board boxes, small mirrors, scissors, cello tape.

**Practical**

**Section A**

**Creating articles useful for schools**

- 1) Preparation of files of different sizes

- 2) Portfolio

- 3) Rolling Black Board

- 4) Flannel Board

- 5) Black Board Colour

- 6) Preparation of Gum

- 7) Preparation of Notebook

- 8) Preparation of stamp pad ink and pen ink.

- 9) Paper weight

**Section B**

**Preparation of Educational Aids**

- 1) Preparation of Permanent Chart

- 2) Preparation of three dimensional model

- 3) Breno

- 4) Display board

**Section C**

**Preparation of Scientific Equipments**

- 1) Preparation of small electric motor (battery operated)

- 2) Solar Cooker

- 3) Wind mill

- 4) Water wheel

- 5) Visionary toys

- 6) Periscope

**( K-4 ) PREPARATION OF SOAPS  
AND DETERGENTS  
Std : IX**

**Introduction**

It is very essential to re-design the syllabus of work experience (work education) in the point of view of the needs of the society as well as the over-all development of the students in 21st century. It is also necessary





to use the achieved knowledge for working out the concept of work-centred education for the students in productive work by giving scope to their creativity. In the social point of view it is essential to fulfil the expectations of the society through education.

A student or any person always tries to find out the meaning of the experience of his own. He creates the knowledge in his mind related to his own past-experience. The student never stuffs the knowledge and information given by the teachers as it is. On the other hand the conception and understanding differs from person to person. The teacher should be attentive about the understanding of the student. If the process has not worked properly the teacher should try to help the students to understand the concept properly. The concept is prescribed in the principle of constructivism. This concept is used in the new syllabus.

In the previous syllabus, the syllabus of Soaps and Detergents (STD - X) and preparation of cosmetics (STD X) were kept together. In re-designed syllabus the subject preparation of cosmetics is included in the subject Art of Cosmetics. Because both subjects are co-related to each other. The subject soaps and Detergents is divided in two parts, one in STD IX and another in STD X.

Now it has become need of the changing period, to make change in teaching technique. Now it is possible to use internet and computer for teaching. To arrange various activities like exhibition of the products made by the students, use CD for teaching, use of OHP, training programmes for teachers should be organised.

## Objectives

### To enable the students to

- 1) Get the information about procedure needed for soap manufacturing .
- 2) Know the procedure of Cleaning powder manufacturing .
- 3) Know methods of stain removal.
- 4) Know the quality of Soaps.
- 5) Take precautions while handling Soap Chemicals.
- 6) Learn the technique of manufacturing Soap.

## Theory

- 1) **Soaps** : Definition , importance , ingredients used for preparation of soaps and their Proportions , different types and methods of preparing Soaps. Salient features of good soaps.
- 2) **Cleaning powder** : Ingredients , their proportions and methods of preparation.
- 3) **Stain remover** : Principles , types of clothes , methods of removing stains.
- 4) **Quality of products**

## Practical

- 1) To prepare washing soap.
- 2) To prepare bath soap .
- 3) To prepare shaving soap.
- 4) To prepare liquid soap.
- 5) To prepare cleaning powder .
- 6) To remove different stains from clothes.



## ( K- 4 ) PREPARATION OF SOAPS AND DETERGENTS

Std : X

### Introduction

Health and hygiene are the most important issues in life. It affects the individual and society directly or indirectly. Using soaps and detergents contribute towards maintaining personal and social health. Hence it is essential for students to inculcate qualities like being hygienic, neat and self reliance. Cleanliness is an essential part of our life hence the importance of soaps and detergent is vital. Knowledge of this subject can help the students to start earning in future.

### Objectives

#### To enable the students to

- 1) Get information about making detergents .
- 2) Know how to make phenyl .
- 3) Know the manufacturing process of liquid blue preparation.
- 4) Know how to make liquid starch .
- 5) Get information about quality of detergents .
- 6) Take precautions while handling detergent chemicals .
- 7) Learn the technique of detergent making.

### Theory

Detergents : Definition , Explanation of word detergent, Ingredients used for preparation of detergents and their proportions , Different types and methods of preparing detergents , salient features of good detergents .

- (2) **Phenyl** : Definition , Importance of ingredients , proportions of ingredients,

types of phenyl , different methods of preparation of phenyl.

- (3) **Liquid Indigo** : Ingredients and their properties , proportion of ingredients and their used .

- (4) **Liquid starch** : Ingredients and their properties , proportion of ingredients and their used .

- (5) **Quality of products**

### Practicals

- (1) To prepare detergent powder.
- (2) To prepare liquid detergent.
- (3) To prepare white phenyl .
- (4) To prepare black phenyl .
- (5) To prepare liquid indigo.
- (6) To prepare liquid starch.

## (K-5) PREPARATION OF DECORATIVE PIECES BY UTILISATION OF WASTE MATERIAL

Std : IX

### Introduction

School education has introduced a new means of developing the creative and artistic talents in students. Within this education pattern students would be encouraged to create attractive and artistic items. So called waste material, both natural items and artificial can be effectively used to create the same. This would not just inculcate aesthetic sense but would promote overall development of the student, giving him scope to earn livelihood by using his skill. He would also get satisfaction of self creation and improve his creativity.

Most of the waste material can be effectively used to prepare artistic and beautiful items. Exposure to this avenue will help the student develop an artistic nature creativity, habit of collecting things and also





increase his confidence level. Seemingly waste pieces of wood, coloured paper, cloth, bangles, beads, glass, trinkets, sequins, mirrors, shells etc can be found easily in the house, prove useful in this art. These odd bits and pieces can be used to prepare attractive and beautiful items in minimum cost.

### Objectives

To help the student to

- A) prepare artistic objects out of waste material.
- B) develop an artistic and aesthetic sense.
- C) use various mediums.
- D) develop observation and creativity.
- E) promote an attitude for group activity and overall development.
- F) experiment to improve aesthetic sense while preparing best out of waste.
- G) get satisfaction of creation and self expression.
- H) inculcate group activity and patience.
- I) find waste material.
- J) develop the ability to use a variety of materials and tools.
- K) encourage self reliance and independence.
- L) improve sense of observation and creative thinking.
- M) develop experimental attitude in students.
- N) make them financially self sufficient by teaching the skills of creating beautiful items from waste material.
- O) grant the children the freedom of manifestation and creativity.

### Theory Part

- 1) preparing creative board by using thermocol.

- 2) preparing a flower vase.
- 3) (Wall hanging).
- 4) preparing show pieces by using egg-shell.
- 5) preparing pictures by using wheat-chalk, Rice-chalk and broom sticks.
- 6) preparation of art-work using chalk.
- 7) preparation of artistic hut.
- 8) preparation of Door- mat.
- 9) preparation of letter box.
- 10) preparation of toys and masks.
- 11) greeting cards.
- 12) pin holders.
- 13) pen stands.
- 14) hanging pictures.
- 15) preparation of artistic work by using ice-cream sticks.
- 16) useful items from plastic bags.

### Practical

- 1) Creative board by using thermocol.
- 2) A Flower pot.
- 3) A wall hanging.
- 4) A show- piece from egg shells.
- 5) A show- piece using wheat chalk and broom sticks.
- 6) Artistic- pieces using chalk.
- 7) An attractive hut.
- 8) Door mat.
- 9) A letter box.
- 10) Toys and masks.
- 11) Greeting cards.
- 12) Pin Holders.
- 13) Pen stand.



- 14) Hanging pictures.
- 15) An item using ice-cream sticks.
- 16) Useful items from plastic bags.

### **(K-5) PREPARATION OF DECORATIVE PIECES BY UTILISATION OF WASTE MATERIAL (Std :X)**

#### **Introduction**

Most people have an eye for beauty. To inculcate creativity in children, they must be encouraged to learn how to create attractive and artistic items out of waste material. Making beautiful objects of art from waste material also helps to develop a habit of collecting things.

Most of the waste material can be used to prepare artistic items. The development of this skill also help in developing the art of collection of different things. This also enhances the aesthetic sense and confidence of children. Things are abundantly and randomly available in our surroundings can be used to make beautiful items, e.g. waste pieces of wood, coloured paper, beads, pieces of bangles, shells and conches, mirrors, etc. Using these waste material, artistic items can be made at minimum cost.

'To imbibe and develop creativity in school children' is the aim of including this subject in school curriculum. Children will be encouraged to make artistic objects out of waste material.

This talent will give a boost to the all-round development of children and at times, it can also prove to be a source of income. It will give the children, the satisfaction of self-creation.

#### **Objectives**

- 1) Find waste material.
- 2) Prepare artistic object out of waste material.
- 3) Identify different shapes and figures.
- 4) Use various mediums.
- 5) Develop the ability to use a variety of materials and tools.
- 6) Motivating the hidden talents, curiosity and developing the habit of collection.
- 7) Develop experimental attitude in students.
- 8) Develop an artistic and aesthetic sense.

#### **Theory**

Prepare Decorative Items

- 1) Lantern
- 2) Toran
- 3) Masks
- 4) Wall Decoration
- 5) Artistic items.
- 6) Artistic objects from used corks, keys etc.
- 7) Chandeliers or Animal birds
- 8) 3D sculpture from letter forms, word forms coloured blocks, fruit forms.
- 9) Show pieces from ceramic utensils and ceramic pipes.
- 10) Model of house, or model of school
- 11) Paper bags using thick paper.
- 12) Letter box
- 13) A) Preparation of brush holders or pencil holders using waste bamboo.  
B) Preparing pen stand using reel of thread.



- 14) A) Preparation of useful items using coconut shell.  
B) Preparation of useful and decorative objects from pumpkin.
- 15) Hanging pictures
- 16) Preparation of purse
- 17) Preparation of a watch case.
- 18) Preparation of spectacle case.

### Practical

Prepare Decorative Items

- 1) Lantern.
- 2) Toran.
- 3) Masks.
- 4) Wall decoration.
- 5) Artistic items.
- 6) Artistic objects from used corks, keys etc.
- 7) Chandeliers or Animal birds.
- 8) 3D sculpture from letter forms, word forms coloured blocks, fruit forms.
- 9) Show pieces from ceramic utensils and ceramic pipes.
- 10) Model of house, or Model of school.
- 11) Paper using thick paper.
- 12) Letter box
- 13 A) Brush holders or pencil holders.  
B) Pen stand using reel of thread.
- 14 A) Useful items using coconut shells  
B) Useful and decorative object from pumpkin
- 15) Hanging pictures
- 16) Purse.
- 17) Watch case
- 18) Spectacle case.

## (K-6) FUNDAMENTALS OF ELECTRONICS

Std : IX

### Introduction

Students are very much familiar with various household consumer electronic equipments. The students use all the electronic equipments available. But if they are well aware of the constructional details and working of these appliances, it will be very useful for them to understand it properly. So basic electronics is introduced as work education for standard IX and X students.

Almost all the fields such as communication, engineering, medical and Computers etc use electronic circuits and equipments. To encourage students to learn electronics, small circuits and its working will help them. Their interest will help them to handle various electronic devices such as CD player, mobiles, TV, DVD, I- POD etc

Technology is used in large scale in various fields of Communication, Engineering, Medical and Computers.

While teaching use of various charts, diagrams, various circuits, Power point presentation will help a lot to understand the subject effectively.

1. To study the use of various tools and equipment used in electronic field.
2. To understand the electrical and electronic circuits.
3. To assemble the circuit as per diagram.
4. To study the working principle and use of digital electronics.
5. Introduction to 'solar' energy and to study its importance and applications.
6. Introduction to study the use of various modern electronic equipments such as



mobile, computer, Internet, I-Pod, CD/DVD players .

7. To apply the work education for productive purpose.
8. To get information about employment and self employment opportunities in electronic field.

## **Theory**

### **Unit 1] Electric Circuits**

- a) Introduction to current, Voltage and Resistance.
- b) Introduction to Cell, Battery and their types.
- c) Study of dry cells and their connections.
- d) Ohm's law .
- e) Introduction to electric circuit.
- f) Study of electric circuit.

### **Unit 2] Electronic Equipment and Tools**

#### **2.1] Equipment**

- a) Ammeter.
- b) Voltmeter.
- c) Multimeter.
- d) Digital multimeter.

#### **2.2] Tools .**

### **Unit 3] Semiconductor**

- a) Atomic structure.
- b) Conductor, Semiconductor and Insulator.
- c) Semiconductor and their types.
- d) P. N. Junction.
- e) Study of Diode.
- f) Application of Diode.
- g) Types of Diode

### **Unit 4] Electronic Components**

- a) Resistor (R)
- b) Capacitor (C)
- c) Inductor (L) and Transformer.
- d) Switch.
- e) Relay.
- f) Diode.
- g) Transistor.
- h) I C.
- i) S M D.

### **Unit 5] Solar Energy**

- a) Introduction.
- b) Information - Solar panel, Battery.
- c) Need and Application.

## **Practical**

- 1) Study the use of various tools used in Electronic laboratory .
- 2) Introduction to Electronic Components and its symbols.
- 3) Study of various meters used in Electronic laboratory.
- 4) Study the use of multimeter.
- 5) Measurement of Electric current using ammeter.
- 6) Measurement of Electric voltage using voltmeter.
- 7) Study connection of dry cells in series and opposition.
- 8) Verification of Ohm's law.
- 9) Testing of semiconductor diode.
- 10) Study the use of semiconductor diode as half wave rectifier / full wave rectifier.
- 11) To find the value of resistor using colour code.



- 12) Study the working of switches .
- 13) Testing of inductor and transformer.
- 14) Study of solar panel and battery.
- 15) Study the use of solar energy for emergency lamp.
- 16) Industrial visit and report writing.

### **(K-6) FUNDAMENTALS OF ELECTRONICS (Std. X)**

#### **Introduction**

Development of any nation is decided on the basis of military force and agricultural production. Now in 21st century development of nation is decided on the basis of its technological achievements or development and this is proved by nations like Japan and Korea. Though they are small in size they have made their separate identity through their technological development China has been capturing whole Global market. China had made its technological development due to their development in electronic science. Electronic is used in almost all the fields such as communication, industry, medical and engineering etc. Due to Electronic use the efficiency and automation has increased and the most important thing is that, the prices of electronic instruments has reduced tremendously.

Indians have proved the world by developing their own " Param " Super computer that they are not far behind in technological developments. But the bombardment of China and other foreign products have captured our market so to overcome this "dragon effect" we should introduce electronics subject from primary level. This will enable students to create

curiosity and interest in this subject and it will also inspire them to study work education.

The subject of Electronics can be very easily explained using various audio- visual aids such as computer (Power point, animation, internet) Its use will help the students to simplify its concepts and get the work education to lead India on the path of progress.

#### **Practical**

- 1) Testing of transistor
- 2) Study the use of transistor as amplifier.
- 3) Study of P A system using one mic, amplifier and loudspeaker.
- 4) Testing of LED Display
- 5) Study of LCD Display.
- 6) Verification of truth table of various logic gates.
- 7) Study of Half Adder / Full Adder .
- 8) Study of various control in mobile.
- 9) Study of battery and battery charger used in mobile.
- 10) Study and use Bluetooth technology in mobile.
- 11) Sending and receiving of text message using mobile.
- 12) Download various information using mobile.
- 13) Sending and receiving of e-mail using mobile.
- 14) Study different controls in CD/ DVD player and connect it to TV receiver.
- 15) Study of I-POD.
- 16) Industrial visits and report writing.



## Theory

### 1) Transistor

- 1) Use of transistor as amplifier.
- 2) Types of Amplifier.
- 3) Single stage and multistage Amplifier.
- 4) Introduction - Microphone.
- 5) Introduction - Loudspeaker.

### 6) Study of public Address System.

### 7) Oscillator

### 2) Display Devices.

- 1) LCD.
- 2) Seven Segment Display.
- 3) Dot Matrix Display.
- 4) Introduction - LCD Display.
- 5) Working of LCD.
- 6) Applications of LCD Display.
- 3) Digital Electronics .
  - 1) Introduction.
  - 2) Logic Gate - Type, Description, Symbol, Boolean Equation, Truth Table.
  - 3) Half Adder.
  - 4) Full Adder
  - 5) Digital memory.
  - 4) Mobile Technology.
    - 1) Communication system and its types.
    - 2) Introduction to Mobile Technology.
    - 3) Description of GSM and CDMA.
    - 4) Information about different facilities available on mobile.
    - 5) Mobile battery and battery charger.
    - 6) Bluetooth GPRS etc.

### 5) Introduction to few Electronics Instruments.

### 1) CD / DVD Player.

### 2) I - POD.

## K8 Cultivation of Vegetable STD : IX

### Introduction

The aim of education system is to make learning easy by remaining close to nature and earning their livelihood with new innovations. The main objective of this study is to make students earn while learning to work directly or indirectly, to gain knowledge by observing and innovate and enjoy new creations. This helps them to maintain mental balance and mould them to be good citizens.

Work education is more important than other subjects in school life because students are maintaining their own garden with lot of efforts and hard labour. It motivates them and gives immense pleasure to see their own creation. It also gives scope to enhance their imagination and creation.

Now a days with global warming climate in changing, sudden rain, occurrence of fog., sudden change in temperature conditions (high or low) and extremely high tides due to cyclone activity are hazardous to vegetable gardening. Fertility in the soil is decreasing hence production is also declining. To combat these problems students are introduce to new concepts like shade net, green house, bio-technology and their advantages. While using these new techniques to grow vegetables students should be made aware of clean environment. It is necessary to teach them to maintain the environmental balance and not to harm it in any way.

New concepts, methods, researches, improved strip cultivation on method and usage of organic fertilizers and insecticides will fulfill the demand of vegetable production in future and it will achieve the objective of





vegetable production along with its high standard and good quality. There is no doubt it will help the common man live healthy and happy life.

Students should be encourage to practice back yard gardening. They should understand natural disaster management, environmental balance, integrated insecticide and disease control, usage of organic fertilizers.

All this will help students to grow vegetables on a large scale with good quality. Hence it should be included in school curriculum.

### Objectives

- 1) Importance of vegetable in human diet.
- 2) Techniques of cultivation of vegetable.
- 3) Cultivation of vegetable according to climate.
- 4) To avoid soil pollution of organic fertilizers and pesticide.
- 5) To develop a skill of selling vegetables in the market.
- 6) Use of cold storage to preserve surplus production of vegetables.
- 7) Processing of vegetables so that they can be used for long time, e.g. drying, canning, powdering etc.
- 8) Vegetable gardening should be acknowledge as a science.
- 9) To study the expertise of vegetable gardeners.
- 10) To experiment new ideas to grow vegetables that are useful and eco-friendly.

### Theory

- 1) Importance of vegetables in diet - use of salads.
- 2) Types of vegetable gardens - Necessity of backyard gardening.

- 3) Types of classification of vegetables.
- 4) To prepare saplings of vegetables in the Nursery - Pot, Tray, Thumb pot.
- 5) To prepare soil and beds for vegetable gardening - usage of coco peat in pots and trays.
- 6) Points of commercial vegetable gardening - Green house cultivation and management.
- 7) New methods of irrigation - Scarcity of water (dry vegetable gardening)
- 8) Vegetable according to crops.

### Points

- Climate, soil, preparation of soil, cultivation, weeding, loosening of soil etc. Crop protection, species, harvesting, production, storage, marketing etc.
- a) Fruit vegetables - 1) Brinjal 2) Chillies 3) Tomatoes 4) lady finger 5) capsicum 6) Dencia
  - b) Beans 1) Gavar 2) Peas 3) Cow peas 4) Tender sweet 5) Val papadi 6) Lima bean 7) Drum stick
  - c) Cabbage type of vegetable - 1) Cabbage 2) cauliflower 3) Naval coal 4) Brocoli.
  - d) Roots and tube - 1) Onion 2) Garlic 3) Radish 4) Carrot 5) Potato 6) Beet root 7) Ginger 8) Turmeric
  - e) Climbers and creepers - 1) Bitter gourd 2) Pumpkin 3) Cucumber
  - 4) watermelon 5) marsh melon 6) Red pumpkin 7) Tondli 8) Ash gourd 9) Zuccuni 10) cherry - tomatoes 11) kurtoli.
  - f) Leafy vegetables - 1) Spinach 2) fenugreek 3) coriander 4) chakwat
  - 5) amaranthus 6) shepu 7) Tandulja 8) Ambadi



- g) Exotic vegetables - 1) Broccoli  
2) Calery 3) pok-chow 4) Red cabbage
- h) Preservation of vegetables - study of various methods drying, canning, sauce, ketch-up, wafers, papad, nuggets, saulting.

salting, powdering, juices, pulp, distilling, wafer, papad, nuggets, cubes, etc.

**(K-8 )**  
**GARDENING FOR ECORATION**  
**STD X**

### Practicals

- 1) Identify sapling, seeding and their parts, Identification of Study of tools and equipments
- 2) processed products, (salad, chutney, wafers, nuggets, pulp, puree, juice, powder etc.)
- 3) Prepare raised bed, plain bed, thumb pot, crate, and hanging pots to grow saplings.
- 4) Transplant of saplings.
- 5) Preparation of framework e.g. flat bed, raised bed, elongated raised bed, round bed, tray, pot, thumb pot, plastic bucket, polythene bag and green house etc.
- 6) Methods of application of fertilizer, and liquid fertilizers.
- 7) Preparation of organic manure (worm culture) and types
- 8) Methods of watering the plants.
- 9) Identification and control of disease and insects.
- 10) Preparation and usage of natural insecticides.
- 11) Disaster management
- 12) Identification of ripe vegetables - Harvesting in disasters.
- 13) Harvesting the vegetables - cooling, selecting, grading and bunching .
- 14) Marketing of vegetables - local, main market and international market.
- 15) Preservation of vegetables - drying,

### Introduction

Gardens are the natural mechanisms of the existence of living things, which work like their lungs. In the period of dynamic life and increasing industrialization, the number of plants and species are decreasing due to population explosion and spreading cities.

The existence of living things is on the verge of problem of drastic pollution and number of diseases. The natural balance is collapsed due to the excessive proportion of carbon-dioxide.

Tree plantation and augmentation is the need of century to maintain the balance of the nature. The efforts should be done in the point of view of increasing the beauty of cities and villages, enjoying the valuable joy of human life, helping the creation of situation.

Decorative trees, spreading greenery make us free from mental stress. So it is necessary to construct gardens, parks in cities, town and villages. Even the gardens around houses, parks in public places decorative streets are the various ways to face the calamity of ozone and to maintain natural balance.

### Objectives

- 1) To understand the nature or a garden.
- 2) To get information about the different types of trees.
- 3) To classify the trees.
- 4) To encourage the students to understand the various types of growth.





- 5) To get the information of various types of decoration.
- 6) To get the information of the arrangements of various flower plants.
- 7) To get the information about the useful trees for pollution - free atmosphere,
- 8) To enjoy rich experience of creativity.
- 9) To preserve and to protect the saplings in the garden.

## INDEX

1.	Gardens.
2.	Classification of decorative trees.
3.	Cultivation of flower plants on commercial basis.
4.	Cultivation of trees based on classification
5.	Types of growth.
6.	Prepare an outline of flower plants (According to colour combination.
7.	Tree – cultivation on available vacant place.
8.	Tree – cultivation in cities and villages.
9.	Tree – cultivation suitable according to the place.
10.	Importance of long lived trees.

## PRACTICAL WORK

1.	Introduction of specific trees.
2.	Well-planned refilling of earth-vessel.
3.	Types of growth.
4.	An outline of tree cultivation according to the place.
5.	To give shape to trees for decoration
6.	Diseases and preventive treatment of flower plants.
7.	Study of Gardens / parks
8.	Garden designing around the bungalows
9.	Occasional exhibition
10.	Visit reports of various exhibitions
11.	Decorative plants/ trees in Green house.



## ( K- 9 ) PREPARATION OF NAME PLATES AND BADGES Std : IX

### Introduction

It is very easy to prepare signboards, banners name plates and badges in this modern and information technology age. These media are used for advertisement, counselling and marketing in government officers as well as in private, business concerns. In fact this is related to advertisement field. In government offices name plates are created according to designation and work. The material, colours used for these name plates must be attractive and suitable to the subject. Students must be given the knowledge of the choice of colours, their combinations, their shades and uses. They should have enrichment of these things.

For name plates, information of various fonts and mediums must be given. It is necessary to utilize the information. Badges are used in various functions and programmes, For the identification of honourable dignitaries is the chief guests, the presidents etc. students must be given the information about choice of materials and its utilization . They must be able to create badges in various designs, colors and shapes.

Keeping in view, the above Objectives, the students must be motivated, Their creativity should be induced and inspired . It requires proper guidance.

### Objectives

- 1) To give information of badges and name-plates to the students .
- 2) To give information of various fonts and typesets for preparing name-plates.
- 3) To develop the students ability to use various materials for creating different fonts / letters .

- 4) To arrange the fonts / for creating various names .
- 5) To develop various innovative methods for creating name-plates and badges .
- 6) To give information of modern technology and techniques for creating name plates and badges.

### Theory

- 1) Importance of name plates.
- 2) To give information of various fonts / letter their sizes, shapes and differences.
- 3) To give information of various mediums while creating name-plates .
- 4) To provide information of colors , Color combination and their shades.
- 5) Provide information of creating letters from thermocole, mount boards , plywood , acrylic sheets and foam sheets.
- 6) Letters practice with the help of stencils.
- 7) Information about creating letters from foam sheets, paste them on acrylic sheets and prepare name-plates .
- 8) Preused cotton boards by using glossy paper, tinted paper and quail paper
- 9) To tell Importance of badges.
- 10) Knowledge about the creative use of colourful stain cloth, ribbons, lace, variety of mirrors and glass, beads and buttons etc. in the preparation of badges.
- 11) Knowledge of fluorescent paper , crape paper, Duplex paper for preparing badges.
- 12) Knowledge of flex- printing by creating designs with help of new technology and computers .



## Practical

- 1) Practice of various types of fonts and letters.
- 2) Preparing name-plates with ply wood letters.
- 3) Preparing name-plates on-ply wood, cloths, foam sheets with colours.
- 4) Prepare name plate on card sheet papers.
- 5) Create letters with thermo cole.
- 6) Prepare name-plates with flex printing.
- 7) Practice of letters with stencils.
- 8) Create badges with various ribbons.
- 9) Prepare badges with various cottons.

### ( K- 9 ) PREPARATION OF NAME-PLATES AND BADGES (STD : X)

## Introduction

Nameplate are used commonly in commercial and government officer , private institutes , banks , buses , railways and airline industry . These can be used effectively in advertising world . Nameplates and badges can be of different sizes and shapes .Name-plates are also used in officer and residential area .

Today, attractive nameplates can be made by using modern technology. Acrylic sheet, foam, copper sheet, glass, vinyl film, radium granite, marble etc. are used to make these .

Metallic letters are used to fix on temples and houses. Nameplates- Memoirs and badges can be prepared by itching on metal . Now a days glass and stone itching is also need to make nameplates. Students should be able do be this practically, armed with the knowledge of material, Chemicals needed and the method of making these.

Students should be made aware of the colours needed to fix on different media , method of fixing these. They should be able to use mouth spray , spray gun , compressor for this purpose .

Preparing flex board design on Computer using modern technology is necessary. Their Knowledge should be enriched to use L. E. D. Light for making glow sigh board . They can use this Knowledge to earn a living in future . There is scope of developing their creativity in this field .

Students should be provided with the knowledge of material needed to make different types of badges in different media and use the same for school functions.

## OBJECTIVE

To enable the students to

- 1) get knowledge of different types and shapes of letters to make nameplate.
- 2) get information about preparing different types of letters using metallic and acrylic sheets.
- 3) learn colour combination and colour fixing technique.
- 4) prepare nameplate using different media by itching.
- 5) know material needed for making badges for particular occasion.
- 6) know use of modern technology to make badges and nameplates.

## Theory

- 1) Importance of badges and nameplates, material needed and media for these .
- 2) Knowledge of colours, various colours and colour combinations .
- 3) Knowledge of colour fixing technique and material needed, spray machine, spray gun.



- 4) Information regarding letter making with metal, acrylic sheet, thermocole, plastic foam.
- 5) Knowledge of making memoirs , memento using thermocole, plastic foam.
- 6) Chemicals needed for granite , marble, glass itching .
- 7) Knowledge of foam sheet , Vinyl film and such media to make nameplate for the classroom .
- 8) Explain what is L . E. D. light and it use for making glow sign board .
- 9) Knowledge of using digital printing and lamination technique to make nameplate and visiting card .
- 10) Information regarding different types of badges and their suitable use.
- 11) Knowledge of material needed for badges making and using it suitable for functions .
- 12) Knowledge of making different types and shapes of badges using cloth , satin, canvas , organdy , beads , lace, ribbon etc .
- 7) Preparing nameplate of classroom using different media ( Foam sheet and Vinyl film .)
- 8) Preparing glow sign board using L. E. D. Light .
- 9) Preparing nameplate and visiting card by digital printing and lamination .
- 10) Preparing different types of badges. (cloth badges ).
- 11) Badges with petals.
- 12) Badges using leather foam.

### **(L-1) BIO-GAS AND ITS USE**

#### **Std IX**

#### **Introduction**

About 30 % of the dung produced by Indian cattle is used as a fuel. Maximum animal excreta goes to waste. Bio-gas plant is proved to be very useful to avoid wastage. Keeping in mind that India is an agricultural country, bio-gas project is very useful.

This project is very beneficial with minimum expenditure and time.

Young students should be given information and knowledge of this project, so that they can create self-employment. This includes the services like bio-gas plant installation, assemblage, examining and repairing of project. One can earn his living with this self employment.

#### **OBJECTIVE**

1. Acquire the necessary information about production of gobar gas.
2. Acquire scientific information of constituent element of bio-gas and various organic matters used for its production.
3. Develop skills of operating the gobar gas plant.

#### **Practical**

- 1) Preparing nameplate .
- 2) Knowledge of colours , colour combination and making of colours combination .
- 3) Explain different techniques of colour fixing and using these practically.
- 4) Preparing letter of metal and thermocole.
- 5) Preparing memoirs , memento of plastic and foam .
- 6) Preparing nameplate by itching method.



4. Develop awareness about the possible defects of the gobar gas plant and to take precaution about its proper uses.
5. Understand the importance of the slurry coming out of the plant as organic manure.
6. To get acquainted with the indirect benefits of the gobar gas plant.
7. Understand the role of gobar gas plant as an agent to maintain clean environment and self reliance.
8. Understand the role of gobar gas plant as an agent to maintain clean environment in the school premises and self reliance.
9. Understand the role of gobar gas plant as an agent to maintain clean environment of the village and self reliance.

### Theory

1. The process of gobar gas production.
2. The constituent elements of gobar gas.
3. Properties and uses of gobar gas.
4. Various types of gobar gas plant.
5. How the gobar gas plant is operated and the precaution to be taken in operating the plant.
6. Possible defects and troubles arising in the Gobar-gas plant.
7. Importance of the slurry coming out of the plant as organic manure.
8. Connection of latrine to the gobar gas plant.
9. Environmental Benefits of gobar gas plant.
10. Demerits of gobar gas plant.
11. Gobar gas as substitute to electricity, LPG and as a fuel for diesel engine.
12. School, School premises and bio-gas creation.

### Practicals

1. Visit bio-gas plants of neighbourhood, Observe its functioning.
2. Compare kitchens and surroundings of households with and without gobar-gas plants.
3. Observe the impact of the slurry manure on potted plants and crops.
4. Prepare and exhibit charts of different kinds of gobar gas plants and their advantages.
5. Install a bio-gas plant in school premises.

## (L 1) BIO-GAS AND ITS USE STD. : X

### Introduction

Importance of workbook, productivity and entrepreneurship is given in the school education. Work education is very important for school education and it motivates students to work.

In this syllabus more weightage is given to practical keeping in mind the local environment, social requirement, availability of resources and students attitude. School is given the opportunity to select this subject.

This syllabus is very beneficial as India is an agricultural country. Young students should be given information and knowledge of this project, so that they can create self-employment. Bio-gas is beneficial because it fulfil social reforms and requirements. This project is very useful as it require minimum time and cost.

### OBJECTIVE

1. Know the mechanism of the bio-gas plant and its principle of working.
2. Understand the design aspects of bio-gas plant.



3. Acquire technical knowledge about the bio-gas plant and fabrication of the gas holder.
4. Select a suitable design and size of the bio-gas plant.
5. Understand the microbiological process involved in the production of the bio-gas and its effect on the cooking gas.
6. Create an awareness of the advantages of the bio-gas plant other than that of the production of the cooking gas.
7. Develop the skill of handling Gobar gas plant and its slurry.
8. Use of Bio-gas plant for the all people.

### **THEORY**

1. Design of bio-gas plant.  
Floating dome, fixed dome.  
Types of floating dome.  
Types of fixed dome.
2. Selecting the proper types and size of the bio-gas plant.  
Consider the points of construction site.  
Size of the bio-gas plant.
3. Designing and fabricating a gas holder, stove and its maintenance.  
Design and construct a gas tank.  
Gas stove and its maintenance.
4. Working of gas mantle lamps with Bio-gas.
5. Effects of atmospheric temperature on the production of Bio-gas.
6. Use of Bio-gas for the community.

### **PRACTICALS**

1. Preparing working model of a bio-gas plant and to run it on cattle dung in the laboratory.

2. Visit to a workshop making bio-gas plants in the neighbourhood of a school.
3. Visit to the construction site of a floating dome and fixed dome bio-gas plant.
4. To study the effect of proportions of cow dung and water on the production of bio-gas.
5. To study the effect of bio-gas and air in their different ratio on the efficiency of a bio-gas burner.
6. To observe the movement of the dome and to calculate quantity of the bio-gas that can be produced in summer and winter in a floating dome bio-gas plant.
7. To calculate the amount of cow dung required for the production of the desired volume of bio-gas.
8. Calculation of the requirement of metal sheet for fabricating the gas holder for a gobar gas plant of the desired type and size.
9. Construct a common bio-gas plant to make use of public latrine and dump.

### **(L-2) PLUMBER Std : IX**

#### **Introduction**

Water is one of the basic needs of human beings. Man cannot live without water. Usage of water has increased tremendously due to industrialisation and urbanisation. Water gets polluted due to natural and man-made causes. The level of underground water is depleting day by day. Therefore proper and judicious management of water is today's need. It is possible to provide the water to its users by a network of various pipelines. This needs the joining and other related works of pipes to be done properly. Hence plumbing has become an important job. If a student develops these skills,





he/she can start a plumbing business and start earning.

It is necessary for the students to be aware of how to avoid wastage of water. Students can visit market place to gather information about materials and tools needed for plumbing and to be aware of new equipments available in market to enable him to be self employed. He/ She can earn a living by plumbing; hence this subject is included in work education at school level.

### OBJECTIVE

To enable the students to -

- 1) know the material and tools used for plumbing.
- 2) developing skills of using these tools.
- 3) master the basic skills.
- 4) use this knowledge in day life.
- 5) understand and inculcate the value of hard work and dignity of labour.
- 6) survey the market for plumbing equipments and tools needed for plumbing.
- 7) introduce to new techniques.

### Practical

- 1) Construction and working of bench vice.
- 2) Cutting G.I. pipe using pipe vice and hacksaw.
- 3) Cutting G.I. pipe using pipe cutter.
- 4) Threading pipe using pipe die.
- 5) Observe construction and working of household plumbing.
- 6) Joining pipes using G.I./P.V.C. pipe joining equipments.
- 7) Survey of pipes, joining tools and sanitary ware.

## (L-2) PLUMBER (std X)

### Introduction

Water is one of the basic needs of human beings. Man cannot live without water consumption of water has increased manifold due to urbanisation and industrialisation water gets polluted due to natural and man-made causes. The level of ground water is depleting day by day. Therefore proper and judicious management of water is to day's need. It is possible to provide water to its users by a network of various pipelines.

This needs the joining and other plumbing related work to be done properly. Hence plumbing has become an important job. If a student develops these skills, he/she can start a plumbing business and start earning.

It is necessary for the students to be aware of ways of avoiding wastage of water. Students can visit market place to gather information regarding material and tools need for plumbing and to be aware of new trends in this field to help him to be self employed. He /She can earn a living be plumbing, hence this subject is included in work education at school level.

### OBJECTIVE

To enable students to-

- 1) understands the importance of water.
- 2) get information about the natural source of water.
- 3) use the material and tools required plumbing with skill and technique.
- 4) use of this information in day to day life.
- 5) strengthen the base of vocational learning / education.
- 6) make the students to take interest in profession.



- 7) get information about how to prepare budget.

### **Practical**

- 1) Joining various pipes and fixing cock to them.
- 2) Threading G.I. pipe.
- 3) Joining ball cock and push cock.
- 4) Study the procedure of attaching secondary joints to main pipeline.
- 5) Fixing bathroom drainage trap in bathroom.
- 6) Information of hand pump.
- 7) Visit to water purification plant
- 8) Preparing budget for plumbing.

## **(L-3) CREATIVE APPLIED ART**

### **Std : IX**

### **Introduction**

According to National Education guidelines the essential objective of education is all round development of the student. However, this is not possible only through book knowledge. It is also necessary to develop the emotional and creative aspects of the students.

Along with theoretical skills, students need to be exposed to the intricacies of business management and practical life. The knowledge of preparing various artistic items out of waste material and easily available material would prove beneficial.

Development of artistic abilities and manual skills will help the students to get jobs in this constantly changing technical age.

Students should get practical knowledge of production and business activity, Ideal development can be achieved by ensuring quality in production with emphasis on modernization. Their talent needs to be

channelized, so that they get personal satisfaction and ability to find means of earning.

Creative Applied Art provides practical knowledge to the students for preparing articles, items that can be used on various occasions, for decoration and also for presenting gifts. This would develop their curiosity, creativity and would give them the satisfaction of self creation.

Most of the material required for this art can be obtained from waste material or from household scrap. Thus it is also easily available. The objective is to teach the students to creatively prepare original, but innovative items that can be used as decorative pieces for various occasions such as festivals, wedding, birthdays, etc.

### **OBJECTIVE**

To enable students to -

- 1) develop the observation power and also their creativity
- 2) develop the ability of new creation and also artistic skills among the students.
- 3) develop latent talents and various abilities.
- 4) develop ability of making new and useful articles from waste material
- 5) give the students the job of creation and at the same time the ability to create a 'good' product which will become a means of earning.
- 6) inculcate self confidence in students.
- 7) develop psychomotor skills through various media/ means.
- 8) motivate students for collection of waste material but useful for new creation.
- 9) motivate students for 'skillful creation' and develop business ability among them.





- 10) develop the sense of co-operation, social binding and brotherhood. students should get a habit of working hard.

### Theory

- 1] Preparation of artistic items with paper.
- 2] Preparing Greeting cards.
- 3] Preparing Lamps / Lanterns.
- 4] Preparation of artificial flowers.
- 5] Wall Hanging.

### Practical

- 1) Preparation of artistic items by folding paper
- 2) Preparing Greeting cards
- 3) Preparing Lamps / Lanterns
- 4) Making artificial flowers
- 5) Wall hangings
- 6) Rangoli
- 7) Preparing 'Rakhis'
- 8) Flower Arrangement

## GENERAL OBJECTIVES OF ART EDUCATION

- 1) Prosperity comes with Art among human beings hence 'to give importance for Art education in school curriculum.
- 2) To develop observation ability / creativity of students
- 3) To develop an esthetic sense and ability to admire art.
- 4) To develop various skills and artistic qualities.
- 5) To develop ability and vision of utilizing waste material

- 6) Skillful creation through the concept of cognition.
- 7) To develop feeling of self creation through cognitivism.
- 8) To develop skilful ability of handling various medium and means.
- 9) To develop the qualities of team work, co-operativeness, patience through Art.

## SECTION - I

### Theory

- 1) Preparation of artistic items by folding papers
  - 1.1) Types of paper folds.
  - 1.2) Preparing various items from the same.
- 2) Preparing greeting cards.
  - 2.1) Types of greeting cards.
  - 2.2) Methods of preparing a variety of cards and material required.
- 3) Knowledge of preparing lamps / lanterns
  - 3.1) Information regarding methods of preparing Lanterns and material required.
  - 3.2) Information regarding card sheet, technique of paper cutting and decoration principles.
- 4) Artificial flower.
  - 4.1) Preparing flowers and Garlands with the crepe paper / kite paper.
  - 4.2) Understanding different decoration styles as per occasion and location.
- 5) Wall Hangings.
  - 5.1) Preparing wall hanging, glass painting with the use of colorful thick card sheet or tinted cardboards, glass, bindis, cloth pieces, beads, colourfull threads, strings.



## SECTION - II

### Practical

- 1) Preparing artistic paper articles / items by folding paper, like rabbit, fox, whale, dog, dog head, house, square, Triangle, Rectangle etc.
- 2) Preparing attractive greeting cards - Preparing different types of greeting cards.
- 3) Preparing lanterns :- Preparing lamps or lanterns of various shapes and sizes like folding, stras shape, pentagon shape, triangle shape etc.
- 4) Artificial flowers
  - \* Preparing artificial flowers and garlands with paper.
  - \* Making garlands with cloth flowers.
  - \* Making necklaces and Garlands with beads.
- 5) Making flower arrangements in Bamboo vase for different decorations.
  - \* Corner decoration - Decoration of sitting room or office with flower arrangement.
  - \* Making gift rappers; flower pots with flower arrangements with Bamboo strips
- 6) Wall hanging (Wall decoration)  
Preparing wall hangings, taking various designs and shapes like Birds, Animals, triangles, squares, circles etc. Preparing Glass paintings.
- 7) Rangoli  
Knowledge of use of various colors and color tents  
Traditional rangoli forms  
Styles of Rangoli  
Posters and nature scenes in Rangoli
- 8) Preparing Rakhis

Understanding importance of Indian tradition of Raksha bandhan

Knowledge of material used to prepare Rakhis

To acquire ability to prepare variety of Rakhis

Use of natural and artificial material on the preparation of rakhis

### 9) Flower Arrangement :

To be able to adopt and arrange natural and artificial flowers and to use Bamboo decorative.

Items for the arrangement of flowers for offices, showrooms, corners and in flowerpots

## L3 CREATIVE APPLIED ART STD - X

### Introduction

According to National Education guidelines the essential objective of education is all round development of the student. However, this is not possible only through book knowledge. It is also necessary to develop the emotional and creative aspects of the students.

Along with theoretical skills, students need to be exposed to the intricacies of business management and practical life. The knowledge of preparing various artistic items out of waste material and easily available material would prove beneficial.

Development of artistic abilities and manual skills will help the students to get jobs on this constantly changing technical age.

Students should get practical knowledge of production and business activity, ideal development can be achieved by ensuring quality in production with emphasis on modernization. Their talent need to be channelised, so that they get personal satisfaction and ability to find means of earning.



Creative Applied Art provides practical knowledge to the student for preparing articles, items that can be used on various occasions, for decoration and also for presenting gifts. This would develop their curiosity, creativity and would give them the satisfaction of self creation.

Most of the material required for this art can be obtained from waste material or from household scrap. Thus it is also easily available. The objective is to teach the students to creatively prepare original, but innovative items that can be used as decorative pieces for various occasions such as festivals, wedding, birthdays, etc.

### Objectives

- 1) To develop latent talents among students
- 2) To develop their observation and also their creative abilities
- 3) To develop the skill to make decorations for various occasions like festivals celebrations and birthdays etc.
- 4) To develop the ability to make new and useful articles from waste materials.
- 5) To develop the capacity to handle different means or tools.
- 6) To give students the joy of creation and at the same time the ability to create a 'good' product which will become a 'means of earning'.
- 7) To develop confidence and team work.
- 8) To develop psychomotor skills through various media or means.
- 9) Motivate them to learn business by creating and skillfully.
- 10) To develop the sense of co-operation social-binding and brotherhood. Students should get a habit of working hard.

### General Objectives if art education

- 1) To develop art with modern technology
- 2) To develop the skill of communication and information through art.
- 3) To introduce hard work and skilled art and the pleasure to enjoy self creation.
- 4) To develop the attitude to accept the culture and social heritage of other countries.
- 5) To develop the attitude to welcome occasions or our own cultural heritage.
- 6) To develop business, skill, advertising and human resource with changing times
- 7) Concept of cognition is used in filed of arts.
- 8) To provide expertise and facilities to students who specializes in a particular art.
- 9) To develop the capacity of self assessment planning and to understand the activities of team work through art.
- 10) To develop curious thinking, sharing knowledge, creativity, advertising skills esthetic sense that motivate teamwork, entrepreneurship, social responsibilities etc.
- 11) To give an opportunity through arts to learn and earn and to be self dependent.

### Theory

- 1) Embossing work.
- 2) Patch work.
- 3) Applique work.
- 4) Collage.
- 5) Fabric painting
- 6) Decorations for specific occasions



- 7) Stencil work.
- 8) Preparing Badges.
- 9) Paper smash.
- 10) Garnishing Baked and carving unbaked objects.

### Practicals

- 1) Embossing work.
- 2) Patch work.
- 3) Applique work.
- 4) Collage.
- 5) Fabric painting.
- 6) Decorations for specific occasions.
- 7) Stencil work
- 8) Preparing Badges .
- 9) Paper Smash.
- 10) Garnishing Baked and carving unbaked objects.

### (L-4) Croche Work Std : IX

### Introduction

Crochet is very popular art in Europe & Japan. It is being practiced for the last 200 years and is popular even in India. Women both from urban and rural region, practice crochet with a lot of interest. Crocheted woollen clothes are particularly used in places of cold climate. Excellence in this art can provide means of living.

Ancient theme the crochet needle was called hooked needle. Crochet is done by the hooked tip of the needle.

Various attractive articles can be made by doing crochet work, e.g. toran, sweaters, shawls, table mats, and garments, for children. One needs to have consistency and patience while performing this art.

### OBJECTIVE

To enable the students to

- 1) Understand the importance and use of crochet work.
- 2) Introduce the technical terms of crochet.
- 3) Learn to select appropriate color combination, threads and wool to make attractive samples.
- 4) Inculcate the habit of consistency, neatness & tidiness.
- 5) Achieve excellence in this art.

### Syllabus IX

### Theory

- 1) Knowledge of various types of crochet needles, threads and wool.
- 2) Knowledge of taking care of crocheted garments.
- 3) Information about different types of stitches and methods of taking measurements.
- 4) Methods of crochet
  - 1] Square handkerchief
  - 2] Round handkerchief
  - 3] Small purse
  - 4] Lace

### Practical

- 1) Square handkerchief (30 cms x 30 cms)
- 2) Round handkerchief (Diameter : 20 cms)
- 3) Small purse (14 cms x 14 cms)  
or  
Doll (Height : 12 cms)
- 4) Lace (width : 3 cms, length : 50 cms)
- 5)



## L-4 KNITTING (std IX)

### Introduction

The art of knitting is very popular in Europe & Japan. It is being practiced from 200 years and is popular even in India. Women both from urban & rural region, practice knitting with lot of interest. Knitted woollen garments are particularly used in the places of extremely cold climate. Excellence in this art can help one to earn a living.

Knitting is done using two needles. These needles are made up of light weight metal or plastic. Two needles numbered 6 to 14 are used according to the ply of the wool, used for knitting.

Variety of attractive items like sweaters, shawls, table mats, and garments for young children can be prepared by knitting. Different samples of these items can be made using different methods & patterns of knitting. One needs to have consistency and while performing this art.

### OBJECTIVE

To enable the students to

- 1) Understand the importance of knitting and its use.
- 2) Introduce the technical terms used for knitting.
- 3) Develop a sense of colour combination and learn to select appropriate thread and wool to make attractive sample.
- 4) Inculcate the habit of consistency, neatness & tidiness.
- 5) Achieve excellence in this art.

### Theory

- 1) Knowledge of different things needed for knitting, such as wool, thread,

needles etc.

- 2) Knowledge of taking care of knitted garments.
- 3) Methods of knitting these articles.
  - 1) Bonnet
  - 2) Booties
  - 3) Scarf
  - 4) Doll

### Practical

Knitting any 3 of these articles

- 1) Bonnet for one year old baby.
- 2) Booties for one year old baby.
- 3) Scarf for two year old baby.
- 4) Doll (Height 12 cms)

## L-4 Croche Work Std : X

### Introduction

Crochet work done with single hooked needle is popular in Europe, Japan, India, America and other countries. New ways of knitting and crochet making are a result of innovative ideas in this field. These methods are used to make sweaters, shawls, and various woollen garments. Toran, handkerchief, bags and various delicate decorative articles can be made by using crochet thread.

Anyone can make crochet or knitted articles using the symbols and draft of different stitches. There is no language barrier for this. Croche work helped in developing concentration, aesthetic sense and neatness.

### OBJECTIVE

To enable the students to

- 1) Understand the importance and use of crochet work.
- 2) Introduce the technical terms of crochet.



- 3) Learn to select appropriate color combination, threads and wool to make attractive samples.
- 4) Inculcate the habit of consistency, neatness & tidiness.
- 5) Achieve excellence in this art.

#### **Theory :**

- 1) Knowledge of different types of thread & wool
- 2) Knowledge of different types of needles required for crochet work
- 3) Making chain of cable according to measurements
- 4) Knowledge of different types of crochet stitches
- 5) Methods of making crochet articles:
  - 1) Glass cover
  - 2) Mobile cover
  - 3) Woolen torran

#### **Practical :**

Making following articles according to the methods.

- 1) Glass cover (6 pieces)
- 2) Mobile cover
- 3) Woolen toran.

### **L-4 Knitting ( Std.X )**

#### **Introduction**

Knitting with two needles is practiced in Europe, Japan, India and America. The pattern book of knitting is getting enriched by different samples using innovative ideas. These patterns can be used to make woolen

sweaters & shawls etc. Anyone can knit by referring to the symbols & draft of the stitches. There is no language barrier for this. Knitting can also be done on knitting machines but there are pattern limitations to it. Knitting can be done loosely and the wool can be re-used. One can develop concentration, aesthetic sense & neatness by knitting.

#### **OBJECTIVE**

To enable the students to

- 1) Understand the importance and use of knitting.
- 2) Introduce technical terms of knitting
- 3) Learn to select appropriate color combination, threads and wool to make attractive samples.
- 4) Inculcate the habit of consistency, neatness and tidiness.
- 5) Achieve excellence in this art.

#### **Theory**

- 1) Information about different types of wool
- 2) Knowledge of different types of needles
- 3) Care of knitted garments
- 4) Knitting stitches according to measurements
- 5) Learning different kinds of knitting stitches.
- 6) Knowledge of knitting different samples and articles.
- 7) Knitting any four specimen samples of the following and record it (10 cms x 10 cms each)
  - 1) Shell stitch
  - 2) Pearl stitch
  - 3) Pine stitch
  - 4) Lattice stitch
  - 5) Simple cable stitch
  - 6) Double cable stitch





## Practical

Preparing following articles by using the above mentioned stitches.

Shawl for a two year old baby

or

Knitting a sweater with full sleeves for a two year old baby.

### (L-5) Household Laundry Std : IX

## Introduction

Textile industry is scaling new heights and entering new horizons. Technological advances have made possible a vast variety of natural and man made fibres, yarns, fabrics, blended fabrics. These fibres and fabrics are not only used to satisfy apparel need but also for a number of many other such as household linens and home furnishing, industrial, medical, commercial and other purposes. It is not only necessary to buy these textiles wisely but also to care them suitably. Label information on textiles serves this purpose effectively. Right choice and right use of cleaning reagents is equally important. As the scope of textiles is ever expanding so do the field of laundry.

Laundry covers a number of processes, washing, dry cleaning, starching, ironing, stain removal etc. Various reagents, chemicals, equipments, processes are used while laundering. Laundry science helps to carry out all these processes effectively with minimum wear and care.

In most of the Indian families clothes are laundered at home and majority of them do it manually. In urban families use of washing machine and variety of new laundry reagents is increasing. With the knowledge of

this subject students will be able to identify various types of fabrics and their properties. Students will be aware of different kinds of soaps, detergents, chemicals, reagents available in the market. Students will also develop the skill of selecting most appropriate reagents and processes for washing particular type of fabrics. Study of this subject will also develop the skills required for laundering and ironing. Acquisition of new concepts, knowledge about advanced techniques and equipments will help to develop vocational aptitude in the students.

## OBJECTIVE

1. To impart knowledge regarding various textile fibres and their properties.
2. To make student understand the importance of the care of various textiles.
3. To make students aware regarding various laundry reagents.
4. To encourage student to collect information regarding modern cleaning agents used in laundry.
5. To give information regarding traditional and modern laundry methods, techniques and equipments.
6. To develop various skills required for laundry.
7. To encourage student to use modern laundry techniques.

## Theory

### Unit 1 - Introduction of textile fibres.

- 1.1 Classification of fibres.
- 1.2 Properties of fibres

### Unit 2 - Care of textiles

- 2.1 Importance
- 2.2 Methods



### Unit 3 - Cleansing agents

#### 3.1 Water

- Hardness of water
- Methods of softening water
- Disadvantages of hard water in laundry

#### 3.2 Soaps and detergents

- Difference between soaps and detergents
- Functions of detergents in laundry.

### Unit 4 - Whitening elements

#### 4.1 Blue

#### 4.2 Fluorescent whitening agents

### Unit 5 - Methods of washing

#### 5.1 Friction washing

#### 5.2 Kneading and squeezing

#### 5.3 Washing by machine.

### Unit 6 - Washing of various garment

#### 6.1 Pre washing processes

#### 6.2 Washing

#### 6.3 Post washing processes

### Unit 7 - Ironing

#### 7.1 Types of irons

#### 7.2 Equipments used for ironing

#### 7.3 General instructions for ironing.

### Practical Unit

- Washing of white cottons.
- Washing of coloured cottons.
- Washing of silk garments.
- Washing of woollens.
- Washing of synthetic garments.
- Ironing shirt.
- Ironing half pant and full pant.
- Ironing skirt.

#### 9. Ironing blouse.

#### 10. Ironing salwar and kurta.

#### 11. Demonstration of preparation of liquid detergent and detergent powder

#### 12. Collection of information of various cleansing agents available in the market.

### (L5) Household Laundry Std. X

### Introduction

Textile industry is scaling new heights and entering new horizons. Technological advanced have made possible a vast variety of natural of man-made fibres', yarns, fabrics and blended fabrics. These fibres and fabrics are not only used to satisfy apparel needs but also for a number of many others such as household lines and home furnishing, industrial medical, commercial and other purposes.

It is not only necessary to buy these textiles wisely but also to care them suitably. Label information on textiles serves these purposes effectively.

Laundry covers not only washing of clothes but also other cleaning processes such as starching, stain removal, dry-cleaning, ironing etc. Cleaning with water and soap is not always possible or advisable for all kinds of fabrics, some rich and expensive silks, rayon's and woollens lose their lustre, sheen colour and rich texture when washed. Such fabrics are cleaned by a method called dry cleaning. Dry cleaning is carried out by the use of grease solvents and grease absorbents.

Study of label information gives the student relevant information while purchasing





various types of textiles wisely and also to care for them in a right way.

Study of this subject will impart necessary skills and knowledge required for the proper selection, use and maintenance of various textiles.

## **OBJECTIVE**

1. To give students the knowledge about methods of starching
2. To develop skills required for starching
3. To develop observation skills for identification of stains
4. To get acquainted with techniques of stain removal
5. To impart knowledge of dry cleaning.
6. To create awareness regarding washing of different types of garments.
7. To give knowledge regarding the symbols used on care labels of readymade garments.
8. To encourage student to collect information regarding modern laundry reagents and equipments.
9. To develop vocational aptitude for the field of laundry.

## **Theory**

### **Unit 1 - Starching**

- 1.1 Objectives of starching
- 1.2 Types of starches.
- 1.3 Methods of starching.

### **Unit 2 - Stain Removal**

- 2.1 Classification of stain
- 2.2 Chemicals and reagents used for stain removal

- 2.3 Methods of stain removal

- 2.4 Removal of unknown stain

### **Unit 3 - Dry Cleaning**

- 3.1 History of dry cleaning
- 3.2 Concept of dry cleaning
- 3.3 Methods of dry cleaning
- 3.4 Chemicals, reagents and equipments used for dry cleaning
- 3.5 Difference between washing and dry cleaning.

### **Unit 4 - Labels**

- 4.1 Interpretation of labels.
- 4.2 Types

### **Unit 5 - Storage of textiles**

#### **Practical**

1. Use of boiling water starch for cotton.
2. Use of cold water starch for cotton.
3. Identification and classification of stains.
4. Preparation of Javelle water.
5. Removal of tea, coffee and fruit stains on cotton fabrics.
6. Removal of turmeric and ink stains on cotton fabrics.
7. Removal of egg and blood stain on cotton fabrics.
8. Removal of oil and grease stains on cotton fabrics.
9. Dry cleaning with grease absorbents.
10. Collection of information of various types of starches and stain removing agents available in market.
11. Collection of various types of labels.
12. Interpretation of care labels.



## **(L6) COOKERY**

### **Std : IX**

#### **Introduction**

Until now Indians preferred to cook and eat food at home. Now-a-days, a lot of change has been noticed in their food habits. Tendency to buy ready-to eat food or eating outside has increased. Therefore catering industry is gaining importance in Indian scenario.

Scientific knowledge, skills & techniques of food production are required for catering business.

This syllabus covers basic recipes which will be beneficial for service and self employment as well as laying down the foundation for further studies in this field.

#### **Objectives**

To enable the students to

1. Know & inculcate rules of hygiene & sanitation in cookery.
2. Learn to improve acceptability of food.
3. Develop skill in preparing food products using different methods of cooking.
4. Learn to methods of serving food products attractively.
5. Learn to pack different food products selecting appropriate material.
6. Learn to calculate selling price of food products
7. Develop entrepreneurship skills.

#### **Theory -**

1. Hygiene and Sanitation.
2. Acceptability of food.
3. Methods of Cooking.

4. Serving and Packaging of food products.
5. Costing and labelling of food products

#### **Practicals-**

1. **Dry Chutney-**
  - (a) Groundnut
  - (b) Dry coconut
  - (c) Niger(karale) Seeds
  - (d) Linseed (Javas)
2. **Breakfast & Snacks.**
  - (a) Sandwiches
  - (b) Kacchi Dabeli
  - (c) Bhel
  - (d) Thepla / Leafy vegetable puri
3. **Salads-**
  - (a) Kuchumber
  - (b) Raita
4. **Sweets-**
  - (a) Basundi / Kheer
  - (b) Shrikhand
  - (c) Chikki / Wadi
5. **Quantity Cookery-** Preparation & Sale of 15 servings of any two products from the syllabus.

## **(L6) Cookery**

### **(Std -X)**

#### **Introduction**

Diet plays an important role in the life of a person right from infancy to the old age. People have to think what to eat to maintain good health. Now a days , there is a rapid change in the life style of a person. The family structure is changed from 'united' to nuclear.



The food habits are also changed. People have started consuming more and more cooked food rather than cooking it at home.

This subject will enable the student to develop and prepare nutritious products. This will help to achieve the objectives of NCF 2005 and SCF 2010. The subject will help to build a foundation for vocational course in cookery std. 11th and 12th Std. It will provide the student with self employment.

### OBJECTIVE

- 1) To learn the nutrients present in food.
- 2) To understand functions & sources of nutrients.
- 3) To know the five basic food groups.
- 4) To plan balanced diet using five basic food groups.
- 5) To develop skill of enrichment of food products.
- 6) To know the factors affecting palatability of food.
- 7) To develop skill in preparation of palatable & nutritious food products.

### Theory

- 1) Nutrients
- 2) Five Basic food Groups.
- 3) Enrichment of food products.
- 4) Palatability of food.

### Practicals -

1. Soups & Beverages
  - a) Tomato/ Mixed Vegetable/Corn.
  - b) jaljeer/Mattha/ Shaebat
2. Breakfast & snacks

- (a) Pohe(Dadpe)
- (b) Leafy vegetable wadi © Idli (d) Batata Wada
3. Sweets
  - (a) Sheera
  - (b) Nutritious Laddu.
4. Nutritious Products-
  - (a) Misal
  - (b) Thalipith
  - (c) Khichadi
  - (d) Pav Bhaji
5. Project- Preparation of " recipe booklet"

### (M4 & M5) ENGLISH TYPEWRITING / MARATHI TYPEWRITING Std : IX

### Introduction

The main aim of the reconstructed syllabus is to prepare the whole based offices. Typewriting will be an additional qualification. As typing structure reflecting the principle of 'constructivism' (Knowledge based learning). In accordance with this aim the importance has been given to the students self-learning and practical work.

Though in this age of Information Technology, typewriting is left behind. The knowledge and skill of typing is still very important for the normal/general and special students. To get a job for general / special students in Government Sector (Semi, Central, State Government), in private office / companies, IT / computer is the base of computer, typewriting should be one of the primary subjects in the schools and at least 2 periods should be given in a week.



## Objectives

1. To create awareness towards typewriter and its types.
2. To give information and functioning of their parts.
3. To make aware about maintenance and how to take care of the typewriter
4. To give information of the key board.
5. To demonstrate the proper sitting position and handling of the typewriter.

## BENEFITS OF TYPEWRITING

1. Typewriting helps the students to become active. More the speed, more the active a typist is.
2. The habit of concentrating on the given work is mostly generated through typing skill. Concentration helps a person to do his work with accuracy and neatness.
3. A typist can achieve the skill of behaving gracefully, use his creativity and make the work presentable, neat and tidy.

## UNIT MAINTENANCE & CARE OF TYPEWRITERS

Every typist expects that his typewriter must work smoothly. For that, he has to take care of it, considering the following points.

1. Before starting the work remove the cover and clean the typewriter with a piece of cloth.
2. Remove the cover in such a way that it should not get stuck with other parts.
3. While lifting, the backside of the typewriter should be held close to chest. The grip should be at the base only.

4. Never hold the carriage and do not keep the typewriter on the shoulder. It may damage the typewriter.
5. In transporting the typewriter, the carriage should be tied up so that it should not move when it is put in sacks, use waste papers for packing. Use the label "TYPEWRITER HANDLE WITH CARE."
6. If the typewriter is not working properly or any part is worn out call proper mechanic and get it repaired/replaced.
7. Oiling and cleaning should be done at least once in a month, call a proper mechanic for regular servicing.
8. After a period of to 11 year the typewriter should be overhauled. It helps to increase the life of the typewriter.

## PRACTICAL

### THE POINTS TO BE REMEMBERED WHILE TYPING.

1. In address-typing, do not type, (Comma) after To. (eg. To,)
2. An underline should not be typed before the matter and under the last signs
3. The sign '&' should not be used the word 'and' must be used instead of it.
4. For tab setting a key top showing + / tab set is to be pressed only once.  
Do not press it more many a time. This may damage the key.
5. In Yours faithfully, "Y" is small. Do no use 's (apostrophe s)
6. When the matter is typed in single line spacing keep double line spacing



between two paragraphs, when the matter is typed in double line spacing keep double line spacing in two paragraphs.

7. Keep two spaces after full stop, question mark as well as exclamation mark at the ending of a sentence. Do not keep any space before them. keep single space after comma, semi-colon etc. No space should be kept before any of these signs.
8. There should be give-space indentation at the beginning of the paragraph.
9. Do not type short forms as Sub., Ref. etc. type full words.
10. While typing date type (,), Comma after month eg. 20th January, 2011

**(M 4 & M5) ENGLISH TYPEWRITING /  
MARATHI TYPEWRITING  
Std : X**

### Introduction

The main aim of the reconstructed syllabus is to prepare the whole structure reflecting the principle of 'constructivism' (Knowledge based learning). In accordance with this aim of importance has been given to the students self-learning and practical work.

Though in this age of Information Technology typewriting is left behind. The knowledge and skill of typing is still very important for the normal / general and special students too. To get a job for general / special students in Government Sector (Semi, Central, State Government), in private office / companies, IT / Computer based offices back-office, front-office, reception, H.R.D., banking the knowledge of typewriting is considered

as an essential qualification. Therefore, it is suggested that every school should include this subject, so typewriting will be an additional qualification. As typing is the base of computer, typewriting should be one of the primary subjects in the schools and at least 2 period should be given in a week. Most of the syllabus in MS Word is developed through typewriting.

### Objectives

1. Awareness towards typewriter and its types.
2. To give information and functioning of their parts.
3. To make aware about maintenance and how to take care of the Typewriter.
4. To give information of key board.
5. To demonstrate the proper sitting position and handling of the Typewriter.
6. To enhance the knowledge of typing.
7. To give special attention to students speed of typing accuracy Neatness etc.

### BENEFITS OF TYPEWRITING:

1. Typewriting helps the students to become active. More the speed more the active a typist is.
2. The habit of concentrating on the given work is mostly generated through typing skill. Concentration helps a person to do his work with accuracy and neatness.
3. A typist can achieve the skill of behaving gracefully, use his creativity and make the work presentable, neat and tidy.

### UNIT MAINTENANCE & CARE OF TYPEWRITERS

1. Every typist expects that his typewriter



must work smoothly. For that he has to take care of it, considering the following points:

Before starting the work remove the cover and clean the typewriter with the piece of cloth.

2. Remove the cover in such a way that it should not get stuck with other parts.
3. While lifting, the backside of the typewriter should be held close to chest. The grip should be at the base only.
4. Never hold the carriage and do not keep the typewriter on the shoulder. It may damage the typewriter.
5. In transporting the typewriter, the carriage should be tied up so that it should not move when it is moved in sacks use waste papers for packing. Use the label

#### **"TYPEWRITER HANDLE WITH CARE."**

6. If the typewriter is not working properly or any part is worn out call proper mechanic and get it repaired/replaced.
7. Oiling and cleaning should be done at least once in a month call a proper mechanic for regular servicing.
8. After a period of to 11 year the typewriter should be overhauled. It helps to increase the life of the typewriter.

#### **THE POINTS TO BE REMEMBERED WHILE TYPING.**

1. In address typing, do not type, (Comma) after To. (eg. To,)
2. An underline should not be typed before the matter and under the last signs.
3. The sign '&' should not be used the word

'and' must be used instead of it.

4. For tab setting a key top showing + / tab set is to be pressed only once. Do not press it more many a time. This may damage the key.
5. In Yours faithfully, "Y" is small. Do not use's (apostrophe s)
6. When the matter is typed in single line spacing keep double line spacing between two paragraphs, when the matter is typed in double line spacing keep double line spacing in two paragraphs.
7. Keep two spaces after full stop, question, mark as well as exclamation mark at the ending of a sentence. Do not keep any space before them. Keep single Space after comma, semi-colon etc. No space should be kept before any of these signs.
8. There should be give-space indentation at the beginning of the paragraph.
9. Do not type short forms as Sub., Ref. etc. type full words.
10. While typing date type (,), Comma after month - eg. 20th Jaunary, 2011

### **(M-2) ELEMENTS OF AGRICULTURE AND CROP PRODUCTION Std : IX**

#### **Introduction**

The population explosion in India is reaching towards 120 Crores. It has become difficult to meet the demand of food grains, fodder, fuel wood. cloth, medicine etc . From agriculture to increasing population. It is due to traditional farming systems, fragmentation of land, industrialization, lack of working capital, indiscriminate irrigation application etc. If





this situation continues scientist predicted that, there will be acute shortage of food grains to feed the millions of the empty stomach, up to 2020.

To overcome the future deficit, it is necessary to make efforts on war footing by educating and creating interest in new generation regarding agriculture.

The population is increasing but, cultivable land is constant, therefore, per capita land holding is decreasing due to fragmentation of land, industrialization, urbanization etc. On the other hand the cost on inputs like, fertilizers, irrigation, seeds, insecticides, fungicides is increasing. For efficient utilization of these production input it is necessary to train the students. By this, not only the food problem is solved but also employment crisis will be dissolved to some extent and standard of living will be improved. Considering all these points this subject is included under work experience.

### Objectives

- 1) To study the factors affecting Agricultural production .
- 2) To study the effect of soil, climate, irrigation management production .
- 3) To study the classification of crops .
- 4) To study the chemical fertilizers .
- 5) To study the different farming systems .
- 6) To study the weeds.

### Theory

- Topic No . 1 : Introduction .
- Topic No . 2 : Factors of crop production-land , Labour, Capital, Management .
- Topic No . 3 : Soil , Different types of

soils, Physical properties of soil .

Topic No . 4 : Weather elements Temperature , Rainfall , Humidity , Evaporation , Wind and their effect on crop growth .

Topic No . 5 : Cultivation of soil - Definition, Objects, types and implements used .

Topic No . 6 : Water - Sources , water requirement of crops , methods of surface irrigation .

Topic No . 7 : Drainage - Types , advantages .

Topic No . 8 : Crops :- Classification and sowing methods.

Topic No . 9 : Types of farming.Rainfed. Dryland and Irrigated , Dryland management .

Topic No.10: Fertilizers - Classification,Nutrient content .

Topic No . 11 : Weed - Its types and classification .

### Practical

Topic No . 1 : Collection and identification of different soil types .

Topic No . 2 : Collection and identification of seeds of different crops.

Topic No . 3 : Collection and identification of weeds .

Topic No . 4 : Preparatory tillage :-

1. Tractor ploughing .
2. Harrowing .



3. Levelling .
4. Use of organic manures .
5. Seedbed preparation .

Topic No . 5 : Irrigation layout .

Topic No . 6 : Methods of sowing .

Topic No . 7 : Inter cultivation .

1. Hoeing .
2. Weeding .
3. Earthing up .
4. Mulching .

Topic No . 8 : Surface irrigation methods.

1. Ridges and furrows .
2. Flat bed .
3. Raised bed .
4. Ring and basin .

Topic No . 9 : Harvesting and storage  
Methods - Harvesting, storage.

## **(M-2) Element of Agriculture and Crop Production (std X)**

### **Introduction**

India is predominant in agriculture and day by day only its population is affects the agriculture production. In addition to this, climate change shortage of farm laboures and their high wages weed and fertilizers management , soil erosion and drainage problems are also contributing towards decreasing agriculture productivity. It these situations prolong then country has to face severe food and nutritional security.

To overcome such problems, it is necessary to undertake the cropping pattern on the basis of climate, adoption of different cropping systems , provision of quality seed

materials , modern irrigation methods , weed and nutrient Management , Season wise package of practices of different field crops, adoption of suitable plant protection measures etc . In addition to this due to rising demand of medicine, there is wide scope for plantation of medicinal plants. By taking advantage of ample available livestock residue for agriculture production can be exploited by its efficient utilization . The quantity and quality of fodder can be provided to feed these live stocks by adopting improved fodder production technology. For updating the knowledge of students regarding agriculture this subject is included under work experience .

### **OBJECTIVE**

- 1) To Study the agro - climatic zones of Maharashtra.
- 2) To Study the effects of climate change on crop productivity.
- 3) To Study different cropping systems.
- 4) To Study the modern irrigation systems.
- 5) To Study the weed and fertilizers management.
- 6) To Study the season wise cropping pattern.
- 7) To Study the cultivation of medicinal plants.

### **Theory**

- Topic No. 1: Agro climatic zones of Maharashtra .
- Topic No. 2 : Climate change and effect on crop .
- Topic No. 3 : Cropping systems .
- Topic No. 4 : Modern irrigation systems.
- Topic No. 5 : Weed management .
- Topic No. 6 : Fertilizers management .





Topic No. 7 : Crop management Practices Soil , Preparatory tillage .

Topic No . 8 : Season , seed treatment , seed and sowing , inter cultivation , fertilizers and water managment , plant protection , harvesting and storage. Cultivation of following major crops on the above aspects .

- 1) Cereals : Paddy , Sorghum , Pearl millet , Maize , Wheat .
- 2) Pulses : Red gram , Soy bean , green gram , black gram, Cow pea , Gram pea .
- 3) Oil seeds : Groundnut , Sesamum , Sunflower , Safflower , Mustard .
- 4) Cash Crops : Sugarcane , Cotton , turmeric , Ginger.
- 5) Fodder Crops : Maize , Sorghum , Lucerne , Yashwant , Jaywant grass , Marvel , Stylo .
- 6) Medicinal Plants : Ashwagandha , Asparagus , Vel khand , Brahmi , Adulsa , Safed musali , Alovera. Element of Agriculture and Crop Production

### Practical

Topic No . 1 : Methods of weed control mechanical and chemical calculation of herbicide closes .

Topic No . 2 : Fertilizer management time and methods of application , Calfertigation .

Topic No . 3 : Seed treatment Objectives, benefits - actual Practical

Topic No . 4 : Modern irrigation methods

components and their uses .

Topic No . 5 : Crop Protection equipments .

Topic No . 6 : Improved implements in Agriculture .

Topic No . 7 : Harvesting and storage .

1. Visit to warehouse / store house .

2. Visit to Agriculture Research Station .

Topic No . 8 : Visit to Agro service Center in the region.

### (R-3) GREEN HOUSE Std : IX

#### Introduction

Today the world population is about 700 crores and Indian population reached upto 121 crores. Food requirement of this population is increasing day by day. Due to industrialisation the cultivable area is decreasing very fastly. The land hold of farmers has been drastically reduced to about 2 acres from 10 acres since 1970. The heavy industrialization and use of fuels had changed the environment resulting the adverse effect on crop production.

There will be a great need of fruits and vegetables to the human being. To fulfil this requirement, the greenhouse technology will definitely increase the production and productivity.

The greenhouse is a inflated structure covered with transparent or semi translucent plastic material in which controlled or partially controlled environment can be created.

The sun rays enter through the plastic cover, are partially absorbed by the greenhouse material and partially entered in the



structure. Radiation and reflected variation cannot pass through the plastic cover. Hence get trapped into the greenhouse structure. Due to this phenomenon the temperature inside the greenhouse is more as compare to ambient temperature. This increase in temperature in greenhouses is known as 'greenhouse effect'.

The environmental factors like temperature relative humidity, solar radiation  $\text{CO}_2$  etc which are required for the growth of crop can be easily controlled in the greenhouse. Photosynthesis rate in the greenhouse is more. Hence, the export quality and quantity production can be taken in greenhouses. Keeping in view the above facts the 'Greenhouse' subject has been introduced in the syllabus.

### Objectives

To enable the students to

1. To know the concept of greenhouse and greenhouse effect.
2. To understand history and development of greenhouse.
3. To know the traditional methods of greenhouse technique.
4. To know the types of greenhouse
5. To know the basic factors regarding construction of greenhouse.
6. To acquire the information regarding the factors affecting the growth of crop.

### Theory

1. Definition of greenhouse, history and development, types of greenhouse
2. Need of greenhouse
3. Factors affecting growth of crops under greenhouse
4. Planning and layout of greenhouse

### Practical

1. Study of planning and layout of greenhouse
2. Comparative Study of crop growth in greenhouse and open field (vegetables and flowers)
3. Visit to greenhouse

Visit to greenhouse to study the different factors and make note.

### (R-3) Green House Std : X

### Introduction

The landhold of farmers is reducing day by day. Due to heavy industrialization the availability of water for agriculture has been reduced. To overcome this problem the greenhouse technique is a solution by which you can control the environmental factors can produce a export oriented flowers and vegetables.

Greenhouse cultivation (protected agriculture) can be made feasible and economical business. It is always easy to due crop management and protects the crop in greenhouses. Protected agriculture will also helpful to allied agricultural industries like packaging transport. etc.

As compare to traditional agriculture the production and productivity in greenhouse is more. Hence this greenhouse technology will be beneficial to students farmers and entrepreneurs involved in agriculture.

### Objectives

To enable the students to

1. Know the various components to be used in the construction of a greenhouse.
2. Workout the expenditure incurred for erection of greenhouse.



3. Know the different growth media in a greenhouse.
4. Study the environment control in greenhouse.
5. Know the computerized control system in a greenhouse.
6. Know the production of crops in a greenhouse.
7. Get knowledge of the post harvest management of a greenhouse produce.
8. Study the economical factors used in the green house technology

### Theory

1. Types of greenhouses.
2. Control of the environmental factors in a greenhouse.
3. Computerized control system in greenhouse.
4. used in Green house for crops & their cultivation.
5. Crops grown under the greenhouses.
6. Improved Irrigation and fertilization in greenhouses.
7. Post harvest management of crops in a greenhouse.
8. The economic evaluation of crops.

### Practical

1. Preparation of laboratory model of greenhouse.
2. Study of growing media.
3. Visit to greenhouse to acquaint with environment control.
4. Observation of crops grown under greenhouse.
5. Harvesting grading, pre-cooling, pack-

ing of flowers - Rose, Carnation, Gerbera, capsicum.

6. Observation of irrigation method and fertigation in greenhouse.
7. Visit to flower market.

## (M-7) PAPER WORK, CARD BOARD AND BOOK BINDING Std.IX

### Introduction

This subject is focused in the concept of education through practical which will give an experience in day-to-day life. The intellectual and emotional development of the students is equally essential with all round development of the students. The students should get experience through practical. The subject - Paper work and Book Binding is very useful to the students to inculcate skill, activity, creativity in them. It will also be helpful to them to earn their own earning and stand on their own in future life.

The students should not only collect the means and materials but they should increase their capacity or creation. Now a days advance techniques, advance mechanical development is rapidly taking place in this world. To face this development, the students should increase their knowledge and should learn new techniques. The syllabus is formed by keeping these points in view - they are new techniques and knowledge and constructivity.

With the help of the curriculum, the importance of earning can be inculcated in students by opening a store of articles. All handicrafts are essential for the students. As the students should understand the values and moral of life and they should develop their knowledge in the point of view of trade and commerce. If the curriculum is helpful to inculcate values in students, it will become easy for him to co-relate to the world of work in present as well as future.



## OBJECTIVE

- 1) To give the information about various types of paper to the students.
- 2) To give the knowledge of the availability of raw material, other means and materials to the students.
- 3) To encourage for using different types of card-sheets, card-boards to make useful artistic thing in daily life.
- 4) To develop, the skill of students in making satisfactory, useful things and show pieces.
- 5) To develop, the skill of planning of work, arrangement, composition and productivity, in the students.
- 6) To inculcate the values in the students such as self-reliance, co-operation, group-work, tolerance, patience, respect etc.
- 7) To understand how the economical development / progress takes place through production.
- 8) To develop the qualities of self assessment and productivity.

### A) Paper - (craftwork) - Theory

- 1) Equipments of pasting
- 2) Information of card-sheet
- 3) Importance of Greeting card

### B) Cardboard work-Theory

- 1) Information and types of cardboard
- 2) Information about the things /articles made from card-paper and card-board.

### C) Book Binding Theory

- 1) The information and history of bookbinding
- 2) Necessary tools and equipments for bookbinding

- 3) To bind the old book.
- 4) The methods of preparing gum and glue.

### A) Paper work - Practical (Any four)

- 1) To make the shapes like cubes, square, pyramid from paper
- 2) To make badges from paper
- 3) To make lanterns from kite-paper
- 4) To make paper-marks of animals
- 5) To make wall hanging of flower with folded paper.
- 6) To make jump-up greeting-card.

### B) Cardboard work - Practical (Any two)

- 1) To make square cube
- 2) To make square tray
- 3) To make letter pad
- 4) To make cartage boxes for packing

### C) Book Binding - Practical (Any two)

- 1) To prepare starch and glue.
- 2) Bookbinding of an old Book
- 3) To make phats albums
- 4) To make office - file.

## (M-7) PAPERWORK - CARDBOARD WORK AND BOOKBINDING (Std X )

### Introduction

All round development of a student, along with his intellectual and emotional development, it is necessary to give them practical experience. To develop their skills, creativity and production abilities



and make them financially self-reliant, the study of paper-work and book-binding has proved useful.

The students should be exposed not just to the material required for developing the skill but also production ability. In this technically fast advancing world the students should be exposed to all production procedures and skills so that they can apply this knowledge in future business prospect.

The students should not just understand the value of creation by hands but also start a store in which they can keep the things made by them and thus the students should appreciate the need to be self reliant.

## OBJECTIVE

To enable the students to

- 1) To Know different types of paper.
- 2) To Acquire knowledge regarding required raw material and other material and tools for the process.
- 3) To Create a variety of artistic and useful items out of paper, card-sheet and card board.
- 4) To Develop skills relating to preparing satisfactory useful items.
- 5) To Develop the ability to technically plan the production process.
- 6) To Inculcate traits like self reliance, co-operation, team work, consistency, patience and respect towards labour hardwork.
- 7) To Develop the values of self reliance and the sense of business and earning capability.

## Theory

### A] Paper work - Theory

- 1) Diagram based on correct proportion and dimensions.

- 2) Information of paper and modeling.
- 3) Information about paper and its different types.

### B] Cardboard work - Theory

- 1) Method of preparing cardboard / Mount board.
- 2) Information relating to decorative items that can be created using cardboard.

### C] Book Binding - Theory

- 1) Knowledge of material and tools required for book-binding.
- 2) Knowledge of paper required for book-binding.
- 3) Various types of stitching
- 4) Information relating to cloth and resin.

### A) Paper work - Practical (Prepare any four articles from the following.)

- 1) A Lintel from the paper fold.
- 2) A sunflower from crape-paper.
- 3) A wing moving bird from the card sheet.
- 4) A diamond shape from thick paper
- 5) A sculpture from an empty box.
- 6) A calendar from a paper.

### B) Cardboard - Practical (Prepare any four articles from the following)

- 1) Toys out of card-board.
- 2) Mobile or hanging pictures.
- 3) A letter rack and it's decoration.
- 4) A hexagonal box.
- 5) An octagonal flower /pot / pen stand.

### C) Book Binding - Practical

- 1) A letter - pad for daily use.
- 2) A file to hold news clippings.



## **(M-8) BEAUTIFICATION**

### **Std : IX**

### **Introduction**

The new syllabus designed for secondary and higher secondary level gives an opportunity to the students, to get knowledge in the field they like. It is very necessary to motivate the students to achieve skill, to practice the skill and even they should come to about the theorise related to cut and beautification. This will help them to get profound knowledge of various arts and to understand the importance of the subject "Art of Beautification."

As the appreciation of beauty and various arts has become an essential part of human life; it is necessary to adjust with new and changing circumstances. The creativity in art and literature and the creativity in other field of knowledge are interrelated with each other. Education should give the opportunity to the student to show ability, creativity and ability of the appreciation of beauty. The tools of increasing creativity should be given through education. Today the opinions and interest about beauty is produced under the pressure of the demand in market. This is the right time to give real knowledge of creative art and learning about aesthetics or beautification.

Now-a-days the sense and awareness about aesthetics has been increased in all level, and at all ages due to the rapid spread of mass-media. So it has become very necessary to give knowledge about aesthetic to the school students.

Personal and public cleanliness are included in the art of beautification. This is a science which inculcates the habits of cleanliness and also enhances it further.

Personal Beautification includes personal cleanliness, skin-care, and

the proper methods of using cosmetics. Massage of the legs and manicure are newly included in this syllabus.

Profession syllabus of 'Cosmetic Making' is inspiring for the student for their future life.

### **OBJECTIVE**

1. To give information about personal aesthetics to the students.
2. To give information about basic principles of aesthetics.
3. To introduce various techniques of beautification.
4. To give information about the knowledge of techniques and there use.
5. To develop the skills of increasing personal beauty.
6. To learn the technique of cosmetics making.
7. To learn accurate and proper use of cosmetics.
8. To encourage the students to create professional attitude.

### **Theory**

#### **I Hygiene**

- 1.1 A) Personal hygiene
- B) Exercise
- C) Balance diet.

#### **1.2 Public Hygiene**

- A) Pollution
- B) Garbage problem.
- C) Contagious Disease, Preventive medicines.

#### **1.3 Importance of Beauty**

#### **II Structure of skin**

- 2.1 Types of skin





2.2 Section of the skin and structure

2.3 Parts of the skin

2.4 Functions of the skin

2.5 Sweat glands, oil glands

2.6 Common diseases of the skin

2.7 Variation in pigmentation.

### **III Manicure and pedicure**

3.1 Nails

3.2 Nail structure

3.3 Nail diagram

3.4 Nail growth

3.5 Nail wraps care

3.6 Nail care

3.7 Nail Art

3.8 Care of hands and foot

3.9 Introduction of equipments.

### **IV Massage**

4.1 Basic manipulation

4.2 Methods of massage

4.3 Points to remember while massaging

4.4 Facial massage

4.5 Hand massage

4.6 Foot massage

### **V Cleaning of the skin**

5.1 Cleansing

5.2 Steaming

5.3 Mask theory

5.4 Pack theory

### **VI Make up**

6.1 Basic principles

6.2 Tools, uses of equipments.

### **VII Cosmetics**

7.1 Face powder

7.2 Creams

7.3 Face pack

7.4 Tooth powder

7.5 Types of Aroma

### **B) Practical Work**

1) Manicure and pedicure

2) Massage - 1) Face

2) Hand

3) Foot

3) Mask and packs.

4) Uses of Make up

1) Bridal make up

2) Party make up

3) Stage make up

5) Face powder

6) Creams

7) Face pack

8) Tooth powder

9) Types of Aroma

Take any two practical from 5 to 9

## **(M 8) BEAUTIFICATION Std. X**

### **Introduction**

The syllabus designed for secondary and a higher secondary student gives an opportunity to get specific knowledge about the field which they like. It is very necessary to mould the students to achieve skill, to practice the skill as well as to understand the theories of art and beautification or aesthetic. Because of this their knowledge about various arts will become profound and it will help them to understand the importance of art to be cosmetics.



The appreciation of beauty and art has now become an essential part of human life. Art and creativity in literature and creativity in other field of knowledge are, inter-related to each other. Education should help them to appreciate the creativity to increase the ability of creation and the opportunities in this on text. Now-a-days the opinions and interest about cosmetics is handled under the pressure of cosmetic market. In this crucial period the knowledge about cosmetics is very necessary.

The sense and awareness about cosmetics has been increased due to the rapid spread of mass-media. The awareness about beauty has been increased in all groups of ages. So it is necessary to give knowledge about art of beautification to the students.

The most important element of beauty in the art of beautification is 'Hair', the growth of hair, care, hair-dressing, hair treatment on various hair problems are included in this syllabus.

The study on skin is an important topic in the art of beautification. The knowledge about inner and outer elements of skin is studied in Std. IX. So now in Std X we are going to learn more about waxing, bleaching and their methods.

The topics like cosmetic surgery and exercise are newly included in the syllabus of Std X in point of view of changing life style, and advance treatments.

This subject is included in the syllabus to teach the students to prepare cosmetics and in to make alert about the use of natural cosmetics.

## **OBJECTIVE**

1. To give information about personal aesthetics to the students.

2. To give information about basic principles of aesthetic.
3. To introduce various techniques of beautification.
4. To give information about the knowledge of techniques and use of them.
5. To develop the skills of increasing personal beauty.
6. To learn the technique of cosmetic making.
7. To learn accurate and proper use of cosmetics.
8. To encourage the students to create professional attitude.

## **Theory**

### **I Hair**

- 1.1 Structure and divisions of hair.
- 1.2 Hair growth
- 1.3 Oil massage for dry hair.
- 1.4 General care of hair.
- 1.5 Head massage.
- 1.6 Disorders of the hair and remedies.

### **II Hair Cutting**

- 2.1 Tools of hair cutting- Information and care
- 2.2 Techniques and basic methods.
- 2.3 Hair cutting for woman.
- 2.4 Hair cutting for men.

### **III Hair Styling**

- 3.1 Procedures of hair styling.
- 3.2 Information of head lines.
- 3.3 Factors to be considered while hair styling.
- 3.4 Applications and uses of tools.





- 3.5 Types of curls.
- 3.6 Various types of hair styling.
- 3.7 Blow drying use of hair dryer.
- 3.8 Hair style for long hair. (open curls, closed curls, flat curls, stand-up curls)
- 3.9 Hair style for short hair. (Back hair combing)

#### **IV Hair Dye**

- 4.1 Artificial and natural dye.
- 4.2 Application of Mehendi dye.
- 4.3 Equipments and application for Mehendi dye.

#### **V Hair removing on skin**

- 5.1 Epilation
- 5.2 Depilation

#### **VI Bleaching of skin**

- 6.1 Procedure of bleaching.
- 6.2 Precautions while bleaching.
- 6.3 Equipments and tools for bleaching.

#### **VII Cosmetic surgery**

- 7.1 Introduction of cosmetic surgery
- 7.2 Types of cosmetic surgery.

#### **VIII Exercise**

Importance of exercise

Types of exercise.

#### **IX Procedure of making cosmetics.**

- 9.1 Ingredients and tools.
- 9.2 Shikakai and amla
- 9.3 Aromatic oils.
- 9.4 Shampoo
- 9.5 Conditioner
- 9.6 Aloe-Vera Gel and liquid

#### **B) Practical**

- 1) Hair cutting.
  - 2) Head massage
  - 3) Hair styling - French roll, Back combing, Back brushing.
  - 4) Recipes for making curls
    - a) Close curls
    - b) Flat curls
    - c) Direct curls
    - d) Indirect curls
  - 5) Eye brow shaping - Threading
  - 6) Procedure of making cosmetics.
    - 6.1 Shikakai powder and amla
    - 6.2 Aromatic oils
    - 6.3 Shampoo
    - 6.4 Conditioner
    - 6.5 Aloe-vera gel and liquid
- Take any two practical from chapter 6.  
1 to 4 practical are compulsory.

#### **(N1) CLAY MOULD WORK**

- 1) Topics for written Examination
- 1) Information about bricks production
- 2) Information of uses of Sticks / gummy article preparation process (Starch, Glue, Gum)
- 3) Preparation of various moulds from Plaster of Paris.
- 4) Types of moulds
  - Press mould
  - Pull cut mould
  - Single waste mould
  - Double waste mould
- 5) Uses of mould, care



## 2) Format of Question for written examination

**Marks 25**

	Topics	Marks	Marks with option
1)	Fill in the blanks	05	05
2)	Match the following	05	05
3)	Short notes (Any two)	06	09
4)	Tell Uses / Say uses	04	04
5)	Write Answer in 4 to 5 lines (Any one)	05	10
Total		25	33

### 3) Annual Work

Records of annual work and written examination is to be maintained in a journal or a practical note-book.

#### Topics

- 1) Preparation of bricks with wet clay - filling the moulds and preparing bricks.
- 2) Methods of preparing sticky/ gummy articles - Use of sticky articles.
- 3) Use of moulds and care - information of preparing moulds.
- 4) Following things are to be prepared by a student and its record is to be maintained in a record book.
  - i) Fruits - Apple, custard apple.
  - ii) Vegetable - Brinjal, lady's finger
  - iii) Animals - Elephant, cow
  - iv) Birds - Sparrow, parrot
  - v) Flower pot -
  - vi) Human face -

- vii) Ganpati
- viii) Half offset plate/half embossing plate
- ix) Preparing moulding for three dimension create various shapes with decoration (any two) for example - triangle, circle rectangle etc.

While coming to practical examination, it is necessary to bring practical note-book/ journal.

#### 3) Practical examination

Time = 02 hours

Marks = 50

The articles created during the year, one article is to be asked to create /to prepare.

Topics

Division of Marks

- 1) Proportion of the article /measurement of the article = 20
- 2) Skill in the work / elegance in the work = 10



3)	Decoration of the articles	=	10
4)	Performing the work in the given time / proper time	=	10
<b>Total</b>		<b>=</b>	<b>50</b>

## (N-2) Cane work and Bamboo work Std : IX

### Introduction

Focusing the needs of 21st century, it is necessary that every student should acquire some specific skills. Taking into consideration the technological developments which are taking place across the globe, and also focusing on the developments and standard of living, it has become necessary to develop the syllabus of the subject 'Work Education', compulsory. According to 'National Curriculum Frame Work 2005' and 'State Curriculum Frame Work 2010', learning process must make the student think and implement the work. It is necessary to include the following interactions in learning process; they are 'student-student learning, student-teacher learning, student - learning material.

Knowledge Constructivism' is the base of National Curriculum Frame Work 2005'. Knowledge constructivism is a theory of learning. Knowledge becomes more clear with experience; that is why knowledge is affected by the temporary conditions, developments, social and cultural conditions; so the knowledge is irrational. As learning is a dynamic process, it has become necessary to stress on personal and social knowledge constructivism. The stress should be given on 'How the student has learnt', instead of 'what topics he has learnt'. For this we have to take into consideration the age group of students, their capabilities, their previous knowledge and then plan the 'learning-experiences' accordingly. This will make the stu-

dent active in learning process. For this the syllabus which can meet the challenges of the changing world been constructed. The syllabus will give scope to the creativity of the student which will build strong citizen of tomorrow.

In today's changing world, it is difficult to tell that everyone will get a job. So to create business minded approach among the students, it is necessary that student should develop intellectually as well as his creative expression is also very much necessary.

Use of Cane-work is increasing in home - decoration, in hotels, in public places. Though the wood is used on less scale today, the Cane is used for making -partitions in big-halls, swings, chairs, furniture, things for home-decorations, artistic baskets on large scale, Cane and Bamboo are available in many sizes and many types. Cane is cheap, the prices are reasonable, affordable, and hangs made out of Cane are light weighted, durable and long lasting. Instead of using plastic items, people nowadays prefer to use Cane to save the environment. That is why the demand for Cane products is increasing. Taking into consideration all the above things the subject 'Cane work and Bamboo work' is included in the syllabus.

### GENERAL OBJECTIVES

- 1] To create awareness about the dignity of work among the students.
- 2] To introduce the students to labour work and skilful work.
- 3] To encourage the students to develop among themselves the skills, which will develop the qualities of an entrepreneurship
- 4] To avail the student the opportunity of 'Earn and Learn' method.
- 5] To develop among the students the



capacities and skills for choosing proper material and tools. (useful for learning)

- 6] to develop the student to become productive.
- 7] To avail the students the opportunities to acquire different skills necessary for different products.
- 8] To inspire the students to start small scale-industry.
- 9] To explain the students the methods of planning and team-work in production.
- 10] To inform the students about the different methods of production.
- 11] To make the students enjoy their creations.
- 12] To develop among the students confidence and self-discipline.
- 13] To develop among the students the habit of self-evaluation while learning or doing the work.
- 14] To help the student to become independent while producing the product or providing the service.
- 15] To develop among the students the habit of inculcating scientific attitude and to develop the habit of using modern technology in the skills which he is acquiring.

#### **Objectives IX and X**

- 1] To develop the skill of making things from Cane and Bamboo.
- 2] To develop the attitude of using modern technology while making the furniture and decorative items from Cane and Bamboo.
- 3] To explain and develop, among the students the principle of 'proportion'.

- 4] To acquire the happiness of one's own creation.
- 5] To develop the interest of making household items and artistic items.
- 6] To develop aesthetic sense and environmental sense.
- 7] To develop the importance of dignity of labour.
- 8] To develop the interest of acquiring practical knowledge by organising exhibitions and to develop the attitude of product selling.
- 9] To avail the opportunity to acquire the skills based on previous knowledge.

#### **Theory**

- 1] Plantation of Cane and Bamboo
- 2] Types of Cane and Bamboo
- 3] Use of Cane and Bamboo in day to day life.
- 4] Information about the tools used in Cane and Bamboo work, their maintenance and their use.
- 5] Methods of preservation of Bamboo plants.
- 6] Method of cutting Bamboo.
- 7] Method of Bamboo stripping.
- 8] Cleaning of Bamboo
- 9] Colouring the Bamboo sticks with natural colours.
- 10] To give information of weaving fan.
- 11] To give information about making decorative and artistic items. Example - greeting card, pen stand, wall decoration, key chain decoration, photo-frame decoration).
- 12] Information of making mats and baskets.
- 13] care of readymade items.



- 14] Environmental importance of Cane and Bamboo.

### Practical

- 1] Bamboo cutting
- 2] Making Bamboo strips
  - A] To cut thin stripes.
  - B] To make round sticks.
  - C] To make square stripes.
- 3] To process the Bamboo sticks for durability
  - A] Process using natural things.
  - B] Process using chemical things.
- 4] To colour the Bamboo sticks with natural colour
- 5] To make small mat out of Bamboo
- 6] To make different items from Bamboo. (small baskets, fan, tray, bowl, flower basket) Easy activities which can be taken according to the convenience.
- 1) To make greeting card (using bamboo stripes) collage method.
- 2) To make sky lantern using Bamboo stripes.
- 3) To make pen-stand by using Bamboo.
- 4) To make decorative pieces by using Bamboo
- 5) To make name plate using Bamboo  
(Complete any two activities according to students choice)

### Complementary activities

- 1) To collect information about various types of Bamboo.
- 2) To collect the samples of Bamboo tree which are there in your surrounding area.
- 3) To collect the items made from various types of Bamboo.

- 4) To visit small-scale industries in your nearby area which produce the Bamboo items and decoratives.
- 5) To interview the Bamboo craftsman.
- 6) To arrange to demonstration of Bamboo craftsman in your area.
- 7) To visit the exhibitions of the bamboo and Cane item, observe the items and to collect information about the items.
- 8) To understand the importance of the items made out of bamboo and Cane in day-to-day life, to collect information about it, to make list of the collection.
- 9) To create float-painting by using bamboo sticks.
- 10) to collect information about the advanced tools used in bamboo and Cane work.

## (N-2) Cane and Bamboo work Std: X

### Introduction

We have already started learning the subject in std IX. It is mandatory to reconstruct the syllabus of std X according to the 'National curriculum frame work 2005' and according to the state curriculum frame-work 2010. We have created the syllabus for std X taking into consideration the demands of the society. How to fulfil the demands, and the syllabus is designed which will give scope to student's creativity.

It has become difficult to get 9 to 5 job to every person because of the computers and advanced technology. So it is necessary that our students should develop the attitude of self-employment and for this attitude students manifestation in the creative manner is very important.

It is necessary that the students should have the knowledge about the various types



of Bamboos, their modern and artistic utilizations, tools used in making Bamboo and Cane items, and methods used to preserve and store the items.

We could see that wood is less used in today's changing world but the use of furniture made out of Cane and Bamboo are used on large scale. Cane and Bamboo is used for in reasonable and affordable price today. Cane and Bamboo are cultivated on large-scale today it has produced on large scale today. People are preferring to cultivate Cane and Bamboo. Items made out of Bamboo and light weighted attractive and durable. Their demand is increasing in market because of the above mentioned qualities. Focusing on all these circumstances, 'Bamboo and Cane work' is included in the syllabus of work education.

### Theory

- 1) To collect information about the various types of Bamboo.
- 2) To know the special usages (artistic and others) of Bamboo.
- 3) Information of making household items from Bamboo.
- 4) Information of the chemical process done on Bamboo.
- 5) Information about the tools used in colouring bamboo, and advanced tools used in colouring Bamboo.
- 6) Information about the making of decorative house-hold items and furniture out of Bamboo.

- 7) Information about making different items made out of bamboo (example hair clip, phone-stand, wood sculpture, modern sculpture made out of Bamboo-roots).
- 8) Information about the knowledge of repairing the damaged Bamboo items, tools used in it, procedure for it.
- 9) To fix the price of the item for sell, taking into consideration the time for manufacturing and the raw material used for make the items.
- 10) Bamboo diseases, insect and remedies for it.
- 11) Bamboo bonsai.

### Practical

- 1) To make household items out of bamboo.  
(e.g. spoon, Mug, sieve, tray)
- 2) To make baskets of different shapes.
- 3) To decorate bamboo by heating it.
- 4) To make chemical process on Bamboo for durability.
- 5) To make decorative show pieces out of Bamboo  
(example - artificial flowers, lamp-shade, miniature of a ship)
- 6) To repair damaged items of Cane and Bamboo
- 7) To organise and exhibition of items made of bamboo and Cane and to sell the items.







## GROUP B

### (M-6) DRAWING & PAINTING Std : IX

#### Introduction

To achieve the objective of all round development of a student, emphasis cannot be given to academic study alone. It is necessary to develop their ability of appreciation as well as to cultivate aesthetic sense in them. Hence art and drawing has been included as a subject in the syllabus along with painting.

India has rich cultural heritage where traditions are revered. It is our duty to nurture this tradition and also encourage aesthetic vision and passion for its study.

To achieve emotional, intellectual and physical development and to maintain a balance among them, the study of art becomes essential. The subject Art is supplementary in the learning process of students, with Information Technology and science. Development of art would not only help to preserve our rich traditional heritage but would also cultivate nationalism through national integration and help to build, a strong democracy.

While studying the scope of Art Essence, Expression, Creativity and new-productivity should be stressed. This booklet will be useful for the teachers to teach the students about the history of art and even information with pictures about pre-historic art, Indus- culture, Maurya period, Architecture of Indian Hindu temples, glorious caves in Maharashtra, basic principles of art,

Indian painters, sculptors etc. It is expected that the teachers should make use of the various techniques, mediums in practicals. Also to encourage students for practical's along with written work it is necessary to give them knowledge of stable- drawing, memory-drawing, nature-drawing, art of graphic, and clay-work etc-

#### OBJECTIVES

To enable the students to

- 1) Create alertness about the importance of dignity of labour.
- 2) Introduce the work of labour and of work skill.
- 3) Introduce the method of creativity
- 4) Increase self-discipline and self confidence.
- 5) Achieve the pleasure of creativity.
- 6) Acquire skills regarding efficient use of various art media and to develop the ability to handle art material and tools.
- 7) Inculcate a passion of art and to develop the sense of art through constructivism.
- 8) Give opportunity to express own actions thoughts, concepts through knowledge of constructivism.
- 9) Enrich the student's cultural insight and artistic skills through various projects of arts on school-level.
- 10) Make purposeful use of audio-visual, field-visits models in the study of art



## History of Art

### Theory

#### Basic Fundamentals of Art

1. Principles of Drawing
2. Colour Theory
3. Principles of Design

### Practicals

- 1) Design.
- 2) Still life .
- 3) Memory Drawing / composition (Cartoon style)
- 4) Nature Drawing
- 5) Geometry plain
- 6) Calligraphy
- 7) Art & Decoration
- 8) Clay work (sculpture)

## (M-6) Drawing and Painting (STD - X )

### Introduction

To achieve the objective of all round development of a student, emphasis cannot be given to academic study alone. It is necessary to develop their ability of appreciation as well as to cultivate of aesthetic sense in them. Hence art and drawing has been included as a subject in the syllabus along with painting.

India has rich cultural heritage where traditions are revered. It is our duty to nurture this tradition and also encourage aesthetic vision and passion for its study. To achieve emotional and intellectual development and maintain a balance between the two, the study of art becomes necessary. It is essential to develop the student's artistic skills as well as

technical know - how while promoting the passion for art.

Development of art would not only help to preserve our rich traditional heritage but would also cultivate nationalism through national integration and help to build, a strong democracy. It will also promote the essential objectives of work-experience education which are to promote a means of livelihood as well as provide satisfaction in the area of art education. While appreciating the essence of art, the child's personal and creative expression needs to be nurtured. It is essential to channelize the student's latest talent on the basis of sound fundamental principles. Art, History, colour theory, geometry, calligraphy and cartoon illustration should form the contents of Art of Education. Along with painting the other visual arts should also be promoted.

### Objectives

To enable the students to

- 1] Understand the great importance of art as human life becomes prosperous due to the art.
- 2] Enrich the ability to appreciate an art and develop aesthetic sense.
- 3] Develop the skill of using the techniques of information and technology through the medium of Art.
- 4] Enrich various types of values and arts and qualities.
- 5] Introduce the labour work and skilled, technical work and develop the sense of set creativity.
- 6] An art is the primary language of human being. Hence it is necessary to develop this subject step by step at every standard related to the student's





level. The help constructivism should be taken. The aptitude and interest of students should be considered.

- 7] Inculcate the love about Indian culture and social heritage and welcome the cultural heritage of other countries.
- 8] Realise the problem like provinciality, blind-belief, increasing population, terrorism, corruption, environment etc.
- 9] Provide trained manpower in the field of art for industrial field, advertising, instead of only focusing on modern art.
- 10] Provide a facility to a student if he has a special attitude or skill in any special field of art.
- 11] Take opportunity and encouragement for earn and learn scheme and enrich their productivity and creativity.
- 12] Enrich qualities like group-work, co-operation, patience, consistency, continuity etc.
- 13] Develop the ability of self examination, self-assessment, also develop the planning and habit of group-projects.
- 14] Realization of the things like critical appreciation, information-transfer, creativity, productivity, aesthetic sense, inspiration of work, rules while working together, industrious skill and social responsibility.

### Theory

1. Gupta Period
2. Indian Temples
3. Moghal Architecture
4. Modern Indian Sculptures/ Painters
5. Glorious caves in Maharashtra

### Practical

1. Design

2. Still life.
3. Memory Drawing/ Composition
4. Nature Drawing
5. Free hand drawing
6. Cartoon
7. Geometry (solid geometry)
8. Occasional Decoration  
Equally essential activity
- A] Occasional easy activities
- B] Socially useful activities  
Gathering Rukhwat, Decoration  
On dining table, corner of a house, stage, ceremonies birth days etc.
- A] Equally Essential Activity :To prepare shades of colour,

### Gray scale

- B] Occasional easy activities : To prepare any texture by using leaves, flowers, thread, rangoli etc.
- C] Socially useful activities : To prepare flower garlands, ornaments, of Halwa, bouquet, flower arrangement articles for decoration.

## (M3) Indian Music (Vocal and Instrumental) Std : IX

### Introduction

The basic purpose of education is to achieve the all-round development of a student. Education in music is very helpful for this. The physical, emotional and intellectual development of a student is indeed possible through the music. So the subject "Indian Music" is included in the syllabus at school level.

According to the state Curriculum Framework 2010, the efforts have been taken to unburden the load of unnecessary



information from the syllabi to make the firm foundation and focus on the practical's, the new syllabus is designed by including all the topics studied in std.VIII such as Alankara,Tala,Saragama etc.

The new topic " Prayer" is included in the syllabus of std-IX, to help the students in concentration. The National Anthem is also included in the new syllabus so that the students can sing it in proper way. Kirtans, Owyas, Powadas are included as they will be helpful for public awareness and social awakening.

The biographies of the great personalities in music - Pt. V.D. Paluskar and Pt. V.N. Bhattachande will definitely inspire the students to study the life-sketches as well as Indian Music.

The Syllabus is framed by thinking about both the normal students and special students.

### Objectives

To make the students enable to.

- 1) Feel interest in music.
- 2) Give scope to hidden qualities and to create self - confidence.
- 3) Enrich the knowledge of 'swaras' with the help of 'swaralankar' and 'sargam'.
- 4) To give basic knowledge of 'ragas'.
- 5) To introduce various talas.
- 6) To describe and explain the contributions of musicians to Indian music
- 7) Increase the ability of recognizing the types of instruments by the classification of instruments in Indian Music.
- 8) Introduce the musical words through the definitions of technical words.
- 9) Enrich the values like national integrity,

fraternity etc.

- 10) Introduce the present method of swarlekhan
- 11) Indentify different musical forms.
- 12) Develop the personality of a student recognizing his ability in art.
- 13) Describe the importance of music in information technology.
- 14) Develop interest in different talas with their specialities with the table and demonstrate geetas with gayaki.
- 15) Describe the importance of music in day to day life.

### Indian Music (Theory)

#### Unit 1

##### Folk Music - Information about various forms in Maharashtra

- 1.1 Folk- Music
- 1.2 Folk-Music in Maharashtra
  - 1.2.1 - Bhajan
  - 1.2.2 - Lawani
  - 1.2.3 -Powada
  - 1.2.4 -Ovi
  - 1.2.5 - Bharud

#### Unit 2

##### Definition of Technical Terms in Music

- 2.1 - Raga Anga - Sangeet,Swara, Aroha, Awaroha,Vadi, Samvadi Varjaswar
- 2.2 - Tala Anga - sam, kal, khand, Matra, Awartan

#### Unit 3

##### Information about musical terms

- 3.1 - Swara and different types.



3.2 - Saptak and different types.

3.3 - Laya and different types.

3.4 - Jati and upajati

#### **Unit 4**

##### **Theory of Talas**

4.1 - Kerwa

4.2 - Dadra

4.3 - Roopak

4.4 - Trital

#### **Unit 5**

##### **Bhatkhande Swarlipi Method(Swar, Saptak & Tala)**

#### **Unit 6**

##### **Different Musical Forms**

6.1 Group Song

6.2 Light Music

#### **Unit 7**

##### **Classification of Instruments**

#### **Unit 8**

##### **Biographical Sketches**

8.1 - Pt. V.D. Paluskar

8.2 - Pt. V.N. Bhatkhande

#### **Indian Music (Practical)**

#### **Unit 1**

##### **Alankar- 2 or 3 Swaras 4 alankaras**

#### **Unit 2**

##### **Theory of Ragas**

2.1 - Yaman

2.2 - Bhoopali

2.3 - Kafi

2.4 - Bhimpalas.

#### **Unit 3**

#### **Theory of Talas**

3.1 - Kerwa

3.2 - Dadra

3.3 - Roopak

3.4 - Trital

#### **Unit 4.**

##### **Presentation.**

4.1 - one sargam (in each raga)

4.1.1- Yaman

4.1.2- Bhoopali

4.1.3- Kafi

4.1.4- Bhimpalas

4.2 - Laxangeet (Any one in prescribed Ragas)

#### **Unit 5.**

##### **Presentation.**

5.1 - Bandish in Chhota Khyals. (one any following Ragaseach)

5.1.1- Yaman

5.1.2 - Bhoopali

5.1.3- Kafi

5.1.4- Bhimpalas

5.2 - Chhota Khyal with 2 alap & 2 tanas(Any Two in prescribed Ragas)

#### **Unit 6.**

##### **Presentation**

6.1 - Prayer (One) or Environment song (one)

6.2 - Loksangeet in Maharashtra (Any one form)

#### **Unit 7.**

##### **National Anthem**

7.1 - Jan-Gan-Man.

7.2 - Vande-Mataram.



### **(M-3) Indian Music (Vocal Instrumental) (Std - X )**

#### **Introduction**

The new syllabus is framed by keeping the following things in focus- to create an interest about music in students, to make the all round development through music, to help the normal students as well as students of special need, handicapped etc. The study of music will help the students concentrate, to enjoy, to become courageous, confident and to have positive attitude. The fatigue which they face due to the burden of other subjects will decrease, they will become energetic. It will help them to control their breathing system, there will be an improvement in their health. In short it will make their all-round development.

According to the State Curriculum-Framework 2010, this subject is included in the syllabus to unburden the load of unnecessary information, Considering their age factor the topics like Gurukul-system and Gharanes in music are excluded from the syllabus of std.X instead the students should observe the surrounding situation of a musician. To enrich their basic knowledge the topics like swaralankar, sargam, from VIII std syllabus are re-included in this syllabi.

The Song like Wel-come songs, patriotic songs, pasaydan are included to facilitate the celebrations like 15th August, 26th January, festivals, birth-death anniversaries etc.

According to the State Curriculum Framework 2010, the students should pay attention towards the new techniques for music from informational technology. Through internet or other medium they will enjoy the music and even will get knowledge about it.

#### **OBJECTIVE**

To enable the students to.

- 1) Create an interest in students about music.
- 2) Give a scope to the hidden qualities of students
- 3) To enrich knowledge of swaras with the help of alankar and sargam.
- 4) Define basic principles of ragas with technical terms.
- 5) Introduce Talas.
- 6) Describe and explain the contribution of musicians to Indian music.
- 7) Describe recognize and analyse Indian musical instruments.
- 8) Define and describe the theory of technical terms of Indian music.
- 9) To enrich the values like national integrity, fraternity etc.
- 10) Introduce the present notation signs.
- 11) Identify different musical forms.
- 12) Study the present situation of Indian Music.
- 13) Explain the importance of informational technology in music.
- 14) Develop the personality of a student identifying his capacity in art.
- 15) Explain the importance of music in day to day life.

( Theory)

#### **Unit 1**

**Information about present scenario in music**

#### **Unit 2**

**Information about musical forms**



2.1 - Sargam

2.2 - Lakshangeet

2.3 - Chhota Khyal.

### **Unit 3**

#### **Information about instruments**

3.1 - Tabala

3.2 - Harmonium

3.3 - Sitar

3.4 - Violin

### **Unit 4**

#### **Theory of Talas**

4.1 - All talas of std IX

4.2 - Zaptal

4.3 - Drut Ektal.

### **Unit 5**

#### **Biographical Sketches**

5.1 - Amir Khushro

5.2 - Lata Mangeshkar

5.3 - Balgandharva

5.4 - Pt. Ravishankar.

### **Unit 6**

#### **Paluskar Swaralipi Method. (Swar, Saptak & Tala)**

### **Unit 7**

#### **Importance of modern Technology in music education**

7.1 - Radio

7.2 - Tele-vision

7.3 - Tape-Recorder

7.4 - Computer.

### **Practical**

### **Unit 1**

**Alankar - 2,3,4, swaras 3 alankaras.**

### **Unit 2**

#### **Theory of Ragas**

2.1 - Khamaj

2.2 - Vrindawani Sarang

2.3 - Shankara

2.4 - Malkauns

### **Unit 3**

#### **Theory of Talas**

3.1 - All talas in std IX,

3.2 - Zaptal

3.3 - Drut Ektal

### **Unit 4**

#### **Presentation**

4.1 - Sargam(Any two in prescribed ragas)

4.2 - Lakshangeet(Any Two in prescribed Ragas)

### **Unit 5**

#### **Presentation**

5.1 - Bandish in Chhota Khyal(One Bandish in each Raga)

5.1.1 - Khamaj

5.1.2 - Vrindawani Sarang

5.1.3 - Shankara

5.1.4 - Malkauns

5.2 - Chhota Khyal with 2 Alap & 2 Tanas.(Any Two Chhota Khyal in prescribed Raga)

### **Unit 6**

#### **Presentation - Pasaydan**

### **Unit 7**

#### **Presentation - One Wel-come song or one devotional song**



## **(L - 8) ELEMENTS OF COMMERCE**

### **Std. IX**

#### **Introduction**

National Curriculum Framework 2005 and State Curriculum Framework 2010 emphasize the importance of practical, productive and entrepreneurship oriented syllabus at school level. Work education is very important from this point of view elements of commerce is included under work education subject for IX and X.

Commerce is playing a vital role in today's modern and competitive world. Hence, study of commercial matters is as important as study of science as a subject. Commerce is also playing an important role in national economy.

The subject includes study of production, distribution and exchange of goods, banks, money and business correspondence. Commerce is a scientific subject dealing with goods production and its study includes services required to provide there goods to the customer. Availability of materials is accelerating the national and International trade. Elements of Commerce is included in the syllabus since it deals with the study of bank, money etc.

This subject will prepare the students for various competitive examinations of banks, insurance, economics and statistics in future.

#### **OBJECTIVE**

To enable the students to

1. get introduced to business transactions.
2. get motivated to start own business.

3. get elementary knowledge about working of business institutions.
4. get knowledge of evolution of commerce.
5. get introduced to working of banks.
6. get introduced to business offices and modern equipments used in these offices.

#### **Theory -Units**

1. Introduction of commerce.
2. Evolution of commerce.
3. Kinds of Trade.
4. Money
5. Bank
6. Business correspondence.

#### **Practical**

1. Visit to a retailer and take interview.
2. Visit to chain shops and departmental store and draft a report .
3. To get /collect the information about various types of money.
4. Visit to Bank and observe the banking transaction.
5. Collect the documents which are using banking transaction.
6. Draft a layout of business letter.
7. Prepare Inward and Outward Register.
8. Handling of official documents.

## **(L - 8) ELEMENTS OF COMMERCE**

### **Std. X**

#### **Introduction**

National Curriculum Framework 2005



and State Curriculum Framework 2010 emphasize the importance of practical, productive and entrepreneurship oriented syllabus at school level. Work Education is very important from this point of view Elements of Commerce is included under work education subject for IX and X.

Independent study of commercial organisation is necessary since the importance of commerce as a subject is increasing day by day.

This third dimension is uniquely important for economic development of nation. Marketing, advertising, salesmanship, transport, communication and insurance etc. enable the industrial development of nation.

The scientific and technical discoveries have brought the world closer. So, study of modern communication facilities like e-mail, e-banking is included in this syllabus.

The syllabus will be helpful for the students who wish to study commerce after Std X.

## OBJECTIVE

To enable the students to

1. Get introduced to business transactions presently used.
2. Get motivated for self employment.
3. Get elementary knowledge of working of various business institutions.
4. Know basic functions related to market.
5. Get introduced to advertising media.
6. Get knowledge of different types of insurance.

## Theory

1. Types of Business Organisation
2. Marketing
3. Advertisement and Salesmanship
4. Modern Communication
5. Insurance

## Practical

1. Visit to the business organisation and draft a report
2. Visit to the mall/Big Bazar and draft a report.
3. Collect various printed advertisement.
4. Arrange group discussion in respect of media of advertisement.
5. Prepare advertisement according to a given subject
6. Arrange expert lecture regarding communication.
7. Collect an information about opening e-mail account on internet.
8. Collect information of various types of insurance.

## (L -9 ) ELEMENTS OF BOOK KEEPING Std : IX

## Introduction

National Curriculum Framework 2005 and State Curriculum Framework 2010 emphasizes the importance of practical training and entrepreneurship development in school education. Work Education is an important and practical oriented subject at school level aimed at putting the student's skills to use.





There are 36 subjects included in work education which include theory and practical units.

Elements of Book Keeping is included in work education as Special/ separate Subject. Study of this subject will motivate the students to become economically independent. They will acquire scientific knowledge of financial transaction, related paperwork and record keeping. Book keeping is a science and this art teaches the students to keep up to date account of their business and to complete the legal formalities related to it. It is expected that the theoretical and practical knowledge of this subject will help them to start earning.

The syllabus for Elements of Book keeping for std. IX included basic knowledge of monetary transactions, financial entries, related paperwork, account keeping and entry books.

### Objectives

To enable the students to

- 1) Motivate them to classify transactions.
- 2) Keep permanent written record of monetary transactions.
- 3) Practically enter business transactions in books of account.
- 4) Introduce different types of book keeping
- 5) Know importance of book keeping and its use in day to day life.
- 6) Have logical information of book-keeping.
- 7) Improve skills of maintaining income and expenditure account in a system-

atic & correct manner.

- 8) Keep a regular record of income and expenditure for everyday use in daily life.
- 9) Motivate the use of modern technology to procure the information of new book-keeping techniques.
- 10) Keep up to date record of daily accounts.

### Theory

- 1) Types of Transactions .
- 2) Basic Accounting Terminologies .
- 3) System of Book keeping .
- 4) Classification of Account .
- 5) Journal and Subsidiary books.

### Practical

- 1) Preparation of specimen forms of Documents required for accounting .
- 2) Preparation of Journal .
- 3) Preparation of Subsidiary books.

## L-9 Elements of Book Keeping (Std. X)

### OBJECTIVE

To enable the students to

- 1) help them selves to allocate different accounts in a ledger related to the business .
- 2) Enter monetary transaction in different accounts of a ledger.
- 3) get information about balancing of account .
- 4) prepare trial balance of all accounts in





ledger at the end of accounting year .

- 5) determine profit or loss at the end of accounting year .
- 6) prepare balance sheet of a business, indicating its financial and monetary position .
- 7) get information about computer and its use related to book keeping .
- 8) get information about e-commerce Transaction.
- 9) Know about tally - programmer and motivate the students to learn tally software .

### Theory

- 1) Ledger.
- 2) Trial Balance .
- 3) Final Account of Sole Trading Concern.
- 4) Computer Awareness .

### Practical

- 1) Preparing ledger and balancing ledger etc .
- 2) Preparing of Trial Balance .
- 3) Preparation of final Accounts of Sole trading concern.

## (M 1) FISHERIES Std IX

### Introduction

Our country has been facing numerous problems due to ever-increasing population. Facilities of higher education and employment is just unable to meet the demand. Even if employment opportunities are generated, there is lack of technological and financial aid. In such circumstances to earn

your livelihood, the only alternative remains is to utilise available resources with the help of present knowledge and skills. The means of livelihood are naturally based on the three basic human needs, i.e. food, clothing and shelter.

Man is a terrestrial animal. So, till now, he has preferably utilised the land resources for his development and mainly for food production. But due to global problem of population explosion, the demand of food is increasing very fast. On the contrary majority of the population is facing the problem of malnutrition. To control the use of land resources and simultaneously solve the problem of malnutrition, it has become essential to utilise the water resources on the earth.

Nearly 71% of the earth's surface is covered by water bodies. Majority of them are rich in number of living and non-living things. Out of them many aquatic organisms can be utilised in human diet. Various fish, shell fish as well as algae could be a part of regular human diet. However, to utilise these water resources, effective and appropriate management is of prime importance. Fisheries is an enterprise related to procurement of aquatic organism. Realising its importance, the work experience programme of Std. IX is designed with the inclusion of types of fisheries, present status of Indian Fisheries, commercially important aquatic organism, methods of capture, transport and sale of fish etc.

### OBJECTIVE

1. To know the utility of aquatic organisms in human diet.
2. To consider the production of aquatic



organisms as a profitable enterprise.

3. To get acquainted with the economically important aquatic organisms from fresh water as well as marine water.
4. To have a knowledge of the present status of fisheries in India and to make efforts to improve it.
5. To study the methods of procurement of fish from natural water bodies.
6. To get acquainted with fish transport and fish marketing.
7. To know the importance of co-operative movement in the development of fisheries.

### Theory

1. Introduction to fisheries and types of fisheries.
2. Present status of fisheries in India.
3. Study of commercially important aquatic organisms in India.
4. Study of various fishing methods.
5. Transport and marketing of fresh fish.
6. Oceanography, navigation and seaman-ship
7. Co-operation.

### Practical

1. Biological record of commercially aquatic organisms.
2. Fabrication and operation of fishing nets and gears.
3. Operation of fishing boats in different water bodies.
4. Visit to a retail fish market.
5. Study of various buoys and signals in

navigation.

6. Study of life saving appliances in navigation.
7. Visit to co-operative society.

## (M-1) FISHERIES (Std : X)

### Introduction

Like many other countries of the world, India has been also facing the problem of food supply due to population explosion. Increasing urbanization and industrial development has resulted into the decrease of agricultural land. Simultaneously the present land under agriculture is endangered due to excessive crop production and is facing the problem of becoming infertile. To decrease the pressure on the agricultural sector, it has become a necessity to concentrate on supplementary and alternative agriculture based sectors like Fisheries.

There are various types of water bodies on the earth most of them are rich in aquatic organisms useful in human diet. Many types of fin-fish, shell-fish, mollusks as well as algae are rich in proteins, minerals and vitamins. Identifying such useful organisms, many countries are now engaged in their production. But this business needs proper management. So topics related to the effective management of fish production and marketing are included in the work experience program of the Std. X.

Programmers like production of fish and shell-fish from natural and man-made reservoirs, procurement of seed for their culture, packing and transport of the seed,



preservation of produced fish, and preparation of special products from fish are included in Std. X syllabus. Due to such activities, numerous opportunities of employment and livelihood will be generated. If these programmers get support of higher education facilities and modern technological aid, skilled manpower will be made available in fisheries sector. Then only the dream of blue revolution will come in reality.

### Objectives

1. To notice the utility of fish in human diet.
2. Identification of culturable fish seed, methods of procurement and controlled production of the fish seed.
3. Identification of culturable fish, know their main characteristics and their culture methods.
4. To know the importance of quality control during fish transport and marketing.
5. To know necessity of fish preservation.
6. To get acquire the different methods of fish preservation.
7. To acquire knowledge about manufacturing of different & special products, by products, value-added products from fish.
8. To acquire technique of important ornamental fish and obtain skill of their seed production.
9. To gain skill of fabrication of an aquarium.
10. To obtain skill about setting, beautification and maintenance of an

home-aquarium.

11. To know the role of fisheries in rural economy and try to improve it.

### Theory

Methods of production and procurement of fresh water and brackish water fish-seed.

1. Packing and transport of fish seed.
2. Culture of aquatic organisms in fresh, brackish and sea-water.
3. Management of fisheries.
4. Fish as 'food'.
5. Necessity of fish preservation and its methods.
6. Special products and by products from fish.
7. Study of ornamental fishes and maintenance of household aquarium.

### Practical

1. Visit to a nearby fish seed production farm.
2. Identification, conditioning and transport of fish seed.
3. Visit to fresh water/brackish water fish culture unit.
4. Visit to a fish landing centre.
5. Study of fish curing methods.
6. Visit to a fish processing unit.
7. Visit to a fish meal plant
8. Fabrication, setting and maintenance of an household aquarium.
9. Visit to a public aquarium and fish museum.



## **(R-4) VOCATIONAL GUIDANCE**

### **Std : IX**

#### **Introduction**

Industrialization and progress in Science and Technology have opened the doors of new vocational opportunities. Globalization and Privatization have been adding new dimension to quality and competitions. In this context students need to be made aware of vocational opportunities in indigenous as well as in global areas. Right guidance and right time would help the student to choose the appropriate vocation according to the aptitudes, abilities etc.

Career planning is most crucial aspect in every individual's life. While choosing a career not only aptitudes and abilities are taken into consideration but Interest, Adjustment, Attitude, Financial position and Personality factors also play significant role.

#### **OBJECTIVE**

- 1) To help the students understand the meaning, scope, need and areas of Guidance.
- 2) To acquaint the students with the meaning, nature, importance and assumptions of Vocational Guidance.
- 3) To help the students understand the relation between school subjects and career opportunities.
- 4) To make the students aware about proper utilization of leisure time.
- 5) To help the students understand the importance of proper study habits/ study skills.
- 6) To make the students aware about choosing proper courses and vocations according to their capacities and available sources.
- 7) To help the students understand about the factors affecting career choice and importance of career planning.
- 8) To motivate the students to collect information about the academic and vocational courses conducted by various institutes.
- 9) To acquaint the students with external, competitive, & scholarship examinations and common entrance tests.
- 10) To make the students aware about the need of counseling to be successful in life.
- 11) To create the interest among the students to collect information regarding careers and occupations from various sources.
- 12) To inculcate professional ethics in the minds of the students by developing healthy attitude towards dignity of labour.
- 13) To make the students aware about acquiring essential education and skills to develop their personality along with their vocational preparation.
- 14) To make the students aware to get right information about various types of occupations and their nature of work.
- 15) To acquaint the students with Distance Education Scheme, self employment and employment opportunities.
- 16) To make the students aware about the importance of adjustment to be successful in life.



### Std. IX

Sr.No.	Unit		Sub Unit
1.	Vocational Guidance	1.1 1.2 1.3	Meaning & nature Need and importance Assumptions of Vocational Guidance
2.	Study Skills	2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9	Listening Note taking techniques Reading Skill Writing Skill. Use of Library Planning of study Time management Preparation for Examination Stress Management
3.	Leisure Time Management	3.1 3.2 3.3 3.4	Social activities. Physical activities Mental Activities Vocational Activities
4.	School Subjects & Related Careers	4.1 4.2 4.3 4.4	Career Arts. Career in Commerce Career in Science. Career in Fine Arts
5.	Some Vocational Options	5.1 5.2 5.3 5.4 5.5 5.6. 5.7 5.8	I.T.I Polytechnic Lok Seva Kendra District Industrial Centers. Khadi & Gramodhyog Centers Jan Shikshan Sansthan. Laghu Udhog Seva Sanstha. M.S Board of Vocational Education
6.	Competitive Examinations	6.1 6.2 6.3	Various Scholarship Examinations Various Entrance Examinations Various External Examinations.
7.	Dignity of Labour	7.1 7.2 7.3 7.4	Importance of Labour culture Nature of work of come occupations. Nature of work of come occupations. Job Satisfaction Professional Ethics
8.	Importance of Adjustment	8.1 8.2 8.3 8.4 8.5	Human needs Adjustment. Mal Adjustment Defence Mechanism Need of counseling



## Practical Work

### Std. IX

1. Collection of Advertisement related to vocations/ careers.
2. Preparation of Charts related to different careers/ vocations.
3. Writing an essay on career 'career'.
4. Visit to vocational / industrial center and preparing visit report.
5. Job analysis of an occupation.
6. Collection of articles / tips about 'Health' from newspapers.
7. Interviewing of any successful ex-student of the school.
8. Writing daily dairy.
9. Preparing list of one's merit and demerit points.
10. Collection of information regarding different products of daily use i.e. Medicine, Milk, etc.

## (R-4) VOCATIONAL GUIDANCE

### Std : IX

### Introduction

Industrialization and progress in Science and Technology have opened the doors of new vocational opportunities. Globalization and Privatization have been adding new dimension to quality and competitions. In this context students need to be made aware of vocational opportunities in indigenous as well as in global areas. Right guidance and right time would help the student to choose the appropriate vocation according to the aptitudes, abilities etc.

Career planning is most crucial aspect in every individual's life. While choosing a career not only aptitudes and abilities are taken into consideration but interest, Adjustment, Attitude, Financial position and Personality factors also play significant role.



### Std. IX

Sr. No.	Unit		Sub Unit
1.	Need of Guidance	1.1 1.2 1.3	Meaning & Scope of Guidance Need of Guidance Areas of Guidance.
2.	Sources of Vocational Guidance	2.1 2.2 2.3 2.4 2.5	Vocational Guidance Centers. Institute of Vocational Guidance. Resource persons. Various Medias. Reference material.
3.	Factors affecting Career Guidance.	3.1 3.2 3.3 3.4 3.5 3.6 3.7	Intelligence. Aptitudes. Disposition Interest. Physical ability. Circumstances. Academic Achievement.
4.	Some Career Options	4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 4.10	Medical Field Engineering Field Agriculture Field Pharmacy Social Field Information Technology Commerce Arts. Fine Arts / Architecture. Management Field
5.	Competitive Examinations and Career Opportunities	5.1 5.2 5.3	Competitive Examinations Career opportunities in Defense Career opportunities for Women and handicapped
6.	Career Planning	6.1 6.2 6.3 6.4	Importance of career planning Preparation for vocation Know Yourself Personality Development
7.	Common Entrance Examinations.	7.1 7.2 7.3	Common Entrance Tests after HSC. Common Entrance Tests for P.G. courses. Entranced tests for studying abroad.
8.	Distance Education and Self employment.	8.1 8.2 8.3 8.4	National institute of Open Schooling. Open Universities Distance Education. Self employment

**Practical Work:**

1. Writing Daily Diary.
2. Collection of Advertisements related to Vocations/ careers.
3. Preparation of charts related to different careers and vocations.
4. Visit to a vocational & Industrial center and preparing visit report.
5. Preparing List of occupations related to the parts of human body. E.g. Eyes - Opticians.
6. Collection of Advertisements regarding vacancies / recruitment from the news papers.
7. Collection of articles from the news papers about the students who have secured good marks in the SSC/ HSC examination by overcoming many hurdles.
8. Collection of Articles regarding interviews of the meritorious students of various competitive / entrance examinations from the news papers and magazines.
9. Collection of Articles published in the news papers regarding choosing a career.
10. Collection of Articles/ tips published in the news papers regarding preparation for SSC examinations.







## Group - C

### 9.1

## New Work Experience Activity Std- IX and X

### Preface

The importance of practical training productivity and entrepreneurship is nowadays emphasized in the school education. In that view, the subject Work Education is very useful, & practical oriented. In this subject, it is expected to utilize the skills of the students. There are 35 various activities covered in this group and these activities are divided into theoretical & practical aspects. Some activities are based on and encourage the students for production – oriented – training. These activities which enhance the various skills of the students are included in “Group-A”.

Some activities are primarily based on theoretical aspects of the field, but still influence the day to day human lifestyle. Such activities are included in “Group-B” & are useful in overall development of the students.

The board has its own broad views about the subject – Work Education Schools can start any new activity taking into

consideration the local conditions, social needs, interest of the students as well as infrastructure facilities. However the school should take prior approval by the Board to start a new activity. In the overall development of the skills, psychological, physical & development in knowledge is also expected. With the fast changing global scenario, the society is confronting new subjects and problems. The new activities should aim at these subjects or problems in the interest of the society. If any school takes on such new activity, it will be included in the Group – Work Education. However, separate proposal with relevant information in due proforma should be submitted to Board well in advance. After the approval by the Board, the school should accept the syllabus Objectives and evaluation pattern laid down by the Board. Such new activities will be included in Group C. It is expected that schools will discover some new activities and implement them successfully.





## Introduction

NCF 2005 highlighted importance of work as pedagogical medium of education. In the context of work certain radical steps to link learning with work from the primary steps upwards are suggested on the ground that work transforms knowledge into experiences and generates important personal and social values, such as self reliance, creativity and co-operation. It also inspires new forms of knowledge & creativity. At a senior level a strategy to recognize resources from the community for work is recommended. (NCF 2005, Prelims, Page IX-X).

In consistent with NCF 2005 directions, pre-vocational curriculum is revised. In the Pre-vocational program, Students are trained to solve their daily problems by using these skills. The community service is the major way in which schools provides services to the community and community pays for such services. This helps in giving real life experiences and prepares them for future.

## OBJECTIVE

The Objectives of pre-vocational education at the secondary stage are –

1. To impart training of simple basic skills to students in class IX and X, useful in everyday life.
2. To develop vocational interests, aptitudes and allow self-exploration.
3. To facilitate the students in making choice of vocational courses at the higher secondary level.
4. To prepare students for participation in work as a desired dimension of academic education and

5. To inculcate healthy values related to work culture.

## 2) This Pre-vocational subject has the following aims:

### 1. Capability to think and act –

General academic education is intended to give the capability to think. This subject not only helps the thinking but also gives the capability to act on one's thoughts, by giving action-oriented experiences.

### 2. A Work culture –

Industry has a work culture of which the important components are the monitoring of performance indicators to ensure competitiveness, cost control and planning; the client is considered supreme and every effort is made to satisfy the public need. The economics and productivity are key considerations under such circumstances, hard and effective work and invention are encouraged, and dignity of labour is recognized. Such a work culture should be encouraged in the education system.

### 3. Delivery Channel for New Technology –

The school technical wing in a remote rural area also acts as a channel for delivery of new technology. Because of the equipment and staff, and their use in services to the community, they are good receptors for introducing new technology developed elsewhere, such as by National Laboratories etc. community service work in real life as part of education. Education and Development have been integrated.



#### 4. Plan Future Career –

Experience is a basic component of learning and this pre-vocational programme is intended to widen their experience base and also make it modern. It therefore has 4 modules of different skills. This helps the student to access his own potential and likes and dislikes and thus helps him/her to plan for his/her career. It also introduces him to the modern world of industrial operation and the spirit of enterprise. The usual admission to higher education is not prohibited.

##### 4) Benefits expected from this:

The student will get a wide exposure to the world of work. He will be guided to apply acquired knowledge and skills to socially useful work. This will generate self-confidence in the student. By making services available to the community, education will be brought closer to the community.

Instructor provides services to the community with the help of students. The Community, the staff and to limited extent the student will also share economic benefits.

The student will be encouraged to develop his own potential and will be helped to make choice of his future career.

##### 5) Instructions for Pre-Vocational Subject:

1. The whole scheme of Pre-Vocational program is explained through three points - Scheme of the examination, Syllabus, Task List.
2. The syllabus is just a guideline for the teachers. A Teacher's Hand Book should be prepared. Additionally, the teachers are expected to refer the Teaching Material and Reference books given and give latest, locally useful information related to the practical skill.

3. Each period comprises of 30 to 35 minutes. It is taken for granted that this subject will be allotted 12 periods from the main timetable of school. In general, during one educational year 35 weeks are available. (365 days of a year - 80 holidays - 52 Sundays - 12 unit test days - 24 Terminal and final exam days - 5 gathering etc. days = 192 days = 30 weeks.) Considering 30 weeks per year x 12 periods per week = 360 periods per year.
4. To plan the yearly work of teaching, a tentative guideline of distribution of periods is given below. However, the prevalence of each of the following sections over daily life is so deep that the periods allotted are not sufficient. The teachers may require extra time to teach the sections more effectively. The School Administration is also expected to provide necessary infrastructure.
5. Most of these sections are expected to be taught practically. Hence, it is advisable that the theory periods may be utilized for the practical or projects or some theory topics can be effectively taught through practical. Hence, the policy to distribute the workload between Teachers and Instructors should be flexible.
6. A vernacular language copy of these syllabi must be provided along with the English version, as most of the topics are related to daily life.
7. If possible, the vernacular version of question papers and model answers should be considered as the original document instead of the English version. At least the state authorities should agree with this policy. This would be helpful for the proper assessment of answer papers and practical exams, because most of the teachers and



examiners are more familiar with the vernacular language.

8. Though some tasks or practicals from the Lab Handbook & Practical Hand Book are very useful, due to technical difficulties these are not actually taught. By modifying them slightly or finding some local alternatives for them, these practicals should be taught. e.g. Milk test by Gerber method.
  9. While using the presently available study material, all the three theory books, practical Handbooks, Lab Handbooks, drawing manual etc. are necessary for every standard.
- 

## **IX STD**

The first year is devoted to give an introduction to the techniques and their potential use.

## **X STD**

The second year is to carry out projects to demonstrate their use and create an asset or wealth in some form, to benefit the community school.





10.1

## Introduction To Basic Technology (V1)

### Standard IX

#### Paper - I

**Drawing, costing & I.T.  
(03 Period per week, Total 90 Periods)**

1. Drawing
- 1) Introduction of Engineering Drawing – Drawing Instruments , Types of Lines , Lettering and Numbering )

**(04 Periods)**

- 2) \* Concept of Plan, Elevation and side view(Orthographic Projection), Isometric Projection – 4 sheets

**(32 Periods)**

- 3) Contours – 2 sheet

**(04 Periods)**

- 4) Electrical circuits – Series and parallel Circuits , DOL Starter and Three Phase Motor Connection - 2 Sheet

**(06 Periods)**

- 5) Flow chart – 2 Sheet

**(04 Periods)**

- 6) Graphs – 2 Sheet

**(04 Periods)**

\* Students to make free hand sketches of hand tools and object of daily use, in the drawing sheet under Orthographic and Isometric projection.

#### 1. Costing

- 1) Costing of Engineering Section - fabrication works, Ferro cement articles, Carpentry works and RCC or brick construction etc.

- 2) Costing of Energy & Environment. Section - Electrical Wiring of room, Estimation of Electric bill etc.
- 3) Costing of Agriculture and AH - Poultry, Crops, Nursery, Vermicomposting etc.
- 4) Costing of Home & Health – Food products.

#### 2. Information Technology

- 1) Paint – electrical Circuits, Free hand drawing of jobs , Hand Graph etc.

**(05 periods)**

- 2) Word Processing – e.g. M.S.Word – Writing recipe, notes etc.

**(05 Periods)**

- 3) Spread Sheet – e.g. M.S.Excel – Water Table, Plant Growth, Costing etc.

**(05 Periods)**

- 4) Presentations – e.g. M.S.Powerpoint – Flow Charts, Electrical Circuits etc.

**(05 Periods)**

- 5) Internet – Introduction of Internet, E-mailing etc.

**(04 Periods)**

#### Paper II Theory

**(01 Period per week,  
Total 30 Periods)**

#### SECTION I ENGINEERING

- 1) Safety Precautions in Engineering Section.
- 2) Measurement and Units
- 3) Materials - Iron & Steel
- 4) Construction
- 5) Carpentry- wood work



## **SECTION II ENERGY AND ENVIRONMENT (Total 08 Periods)**

- 1) Safety Precautions in Electric Work - Accidents & Risks.
- 2) Energy
- 3) Electric Energy
- 4) Maps and contours
- 5) Septic Tank and Biogas Plant
- 6) Earthing

## **SECTION III AGRICULTURE & ANIMAL HUSBANDRY (08 Periods)**

- 1) Safety Precautions in Agriculture and Animal Husbandry.
- 2) Land , soil and water supply.
- 3) Fertilizers
- 4) Plants, Birds and Animals.
- 5) Animal Food

## **SECTION IV HOME AND HEALTH**

- 1) Safety Precautions in Home Health Laboratory.
- 2) Water Pollution
- 3) Health Practices, Diseases and Prevention of diseases.
- 4) Blood Content

## **Paper II PRACTICAL (08 Period per week, Total 240 Periods)**

(The following list contains the practical skills expected. The detailed LIST \*\* should be referred for planning yearly practical and practical examinations)

## **SECTION I ENGINEERING (60 Periods)**

### **1) FABRICATION –**

Measurements ,Cutting, Filing, Drilling, Threading of Rod , Tapping, Welding, and Soldering etc. general workshop operations to prepare a utility article viz. stool, chair, table, RCC frame etc. (20 Periods)

### **2) PLUMBING -**

Cutting, Threading of G.I. Pipes, Introduction of accessories and tools of plumbing, Simple piping by using coupling , Elbow ,bend , cocks etc.

### **3) CONSTRUCTION –**

Using plum bob, spirit level make a brick bonds, mortar work for repairing etc. , Ferro cement sheet technique to prepare items as storage tank etc., (16 Periods)

### **4) CARPENTRY –**

Handling carpentry tools, sharpening plane blade, saw, saw-teeth setting, wooden joints (L, T etc.), fitting various hinges, laminating wooden surface, drilling on wood etc. (16 Periods)

**Carburettor** - device for mixing oil-vapour and air in petrol engines.

## **SECTION II ENERGY & ENVIRONMENT**

### **1) ELECTRICAL –**

Introduction of Electrical tools ,Symbols, Types of wires and Cables , Types of joints , Simple circuits, wiring (staircase, go down, house wiring, light control wiring), fuse fitting, connecting various appliances to AC supply (iron, fan, heater, tube light, motor with starter





etc.), earthing, Estimation of Electricity bill.  
**(20 Periods)**

## **2) ELECTRONICS**

Make a LED AC and DC bulbs, LED torch etc. Maintenance of Lead acid batteries and connect battery to inverter.  
**(12 Periods )**

## **3) SURVEYING**

Plane table method, Map sketching, mark contours by various methods etc., dam construction techniques.  
**(12 Periods)**

## **4) ENERGY EQUIPMENT HANDLING**

Soak pit, Petrol Engine – Cleaning of carburettor and make fitting, pressure & wick stoves, LPG & biogas stove etc.  
**(16 Periods)**

### **SECTION III AGRICULTURE & ANIMAL HUSBANDARY**

## **1) AGRICULTURE**

Preparing land, seed processing, sowing, Use of Mulching Paper, using pesticides, hoeing etc., maintenance of Knapsack sprayer, Irrigation methods.  
**(24 Periods)**

## **2) NURSERY TECHNIQUES**

Different types of grafting, Use of Shed Net, Production of plants in a nursery  
**(14 Periods)**

## **3) ANIMAL HUSBANDARY -**

Measuring body temperature, guessing age by teeth, weight by size, calculating food amount for a milch animal as per its TDN, milching capacity etc., visit to dairy for dairy technique, visit to AI center, grow broiler chicks.

**(22 Periods)**

### **SECTION IV HOME & HEALTH**

## **1) STITCHING –**

Back stitch, running stitch, Cross stitch for hand sewing , machine stitch, chain stitch of embroidery work **(08 Periods)**

## **2) KNITTING -**

Garter Stitch, Seed Stitch.  
**(08 Periods)**

## **3) HYGIENE –**

Balanced Diet - weigh out them in proper quantity so as to get given calories and protein contents, Drinking Water testing , Blood checking (group & Hb), soil testing (pH, N.P.K.).

**(18 Periods)**

## **4) COOKERY –**

Food preservation by sauces, jams, jellies, chikki, khoa, muramba, pickles etc., Make a Nankatai by using Microwave Oven, use of solar cooker & Dryer.

**PRACTICAL LIST**  
**(The Practical List with \***  
**mark may be given to group of**  
**students)**

### **SECTION I ENGINEERING**

1. Handle & study the tools, hinges and screws used in carpentry.
2. Sharpen the Mortise Chisel.
3. Sharpen the blade of Plane.
4. Set and sharpen the teeth of a Saw.
5. Prepare an L joint from the given wood.
6. Prepare a T joint from the given wood.



7. Fix suitable hinges to the given 2 pieces of wooden batten so that they can open flat and fold on each other.
8. Cut the given M.S. angle to prepare a frame of given size. (No overlap)
9. Weld the given pieces of an M.S. angle to prepare a frame.
10. Fix the hinges to the given wooden article.
11. Thread the given G.I. pipe according to the given drawing/dimension.
12. Prepare an article from given G.I. sheet according to the given drawing/dimension.
13. Prepare an article from given G.I. sheet according to the given drawing/dimension, by soldering.
14. Cut and weld the given M.S. rod according to the given dimensions of a frame for Ferro cement sheet.
15. Cut the given chicken mesh according to the given dimensions and weld it on the given M.S. rod frame of a Ferro cement sheet.
16. Prepare an article of Ferro cement according to the given drawing/dimension.
17. Drill 2 holes at right angles to each other on a given wooden block.
18. Apply a sun mica sheet to the given wooden/plywood surface.
19. Weld 2 pipe pieces to form an L joint.
20. Tap the given job according to the given drawing/dimension.
21. Thread the given metallic rod according to the given drawing/dimension.
22. Arrange given bricks in Flemish Bond (Stretcher & Header) up to 1 metre.
23. Arrange given bricks in English Bond up to 1 metre.
24. Arrange given bricks in Rat Trap Bond up to 1 metre.
25. Construct a 0.5-metre high brickwork in Flemish Bond (Stretcher & Header) with mortar.
26. Construct a 0.5-metre high brickwork in English Bond with mortar.
27. Construct a 0.5-metre high brickwork in Rat Trap Bond with mortar.
28. Construct an R.C.C. work as per the given drawing/dimensions.
29. Prepare a concrete slab according to the given drawing/dimension.
30. Plaster a given wall area of approx. 1 sq. metre, using proper mortar.
31. Make a simple piping by using Plumbing accessories such as elbow, bend, coupling, cock etc.

## SECTION II ENERGY & ENVIRONMENT

1. Sketch a proportionate map of the area surrounding the school/examination center. Show the important places by proper symbols.
2. Sketch a proportionate map of an imaginary/memorized place for tourists. Show the important places by proper symbols.
3. Control a lamp by one switch.
4. Control two lamps by two separate switches.
5. Connect two or more lamps in series.
6. Connect two or more lamps in parallel.
7. Prepare and join a circuit for staircase wiring. \*





8. Prepare and join a circuit for go down wiring. \*
9. Survey a slope area by using a frame or water tube and at least 2 contour lines with 5 points on each line.
10. Dig a pit measuring 30 x 30 x 30 cm for earthing.
11. Fill up the given earthing pit by proper layers. Place the earthing plate in it and connect the given circuit to earth. Test the circuit for proper earthing.
12. Dismantle the given pressure stove, draw a neat sketch to show all parts of it, assemble it.
13. Remove the burner and nipple of the given pressure stove, clean it if necessary, refit it and kindle the stove.
14. Dismantle the wicks of the given wick stove, trim the wicks in a level, assemble the stove and kindle it.
15. Change the over burnt wicks of the given wick stove and kindles it.
16. Prepare and join a circuit for hospital/ light control wiring. \*
17. Assemble a tube light circuit.
18. Calculate the current used by a 3KW geyser or 3 HP motor and find prepare a fuse of proper capacity from a 36 SWG wire. Test the ampere capacity of the fuse by using autotransformer. Fix the fuse in proper place.
19. Connect a three-phase motor to an electric supply through a DOL starter and show the reversal of motor direction.
20. Fill up petrol & oil in proper proportion in an empty tank of 2 strokes I.C. engine and start it.
21. Remove the spark plug of a petrol engine by using proper tools. Test it for proper sparking and refit it.
22. Measure the efficiency of the given electric pump set. Measure the input electric energy in wattage of the pump and measure the output water using a bucket and watch with seconds markings. (The delivery head will be given)
23. Measure the electric load of the given electric circuit by using revolutions of the disk of the energy meter connected in that circuit.
24. Prepare slurry from the given cow-dung and feed the given Biogas tank. (If available)
25. Measure the biogas consumed in the given time by a kitchen stove connected to the Biogas tank. Use the difference in the height of the gasholder. (If available)
26. Make a soak pit of the given size. (If possible)
27. Make a LED AC & DC Bulbs, torch etc.
28. Make maintenance of lead acid batteries and connect battery to inverter.
29. Clean a carburetor of petrol engine and make fitting.

### SECTION III AGRICULTURE & ANIMAL HUSBANDARY

1. Estimate the expenses of various crops considering the soil, weather, water supply and select a suitable crop for profitable cultivation.
2. Prepare land measuring 2 sq. metres for cultivation.
3. Process the given seeds by anti-fungus chemicals.
4. Process the given monopetalous (cereals) seeds by Azetobactor.



5. Process the given bipetalous (legumes) seeds by Rizobium.
6. Process the given seeds by internal pesticides.
7. Prepare a channel bed and sow the given seed.
8. Prepare a flat bed and sow the given seed.
9. Observe the Sprinkle Method of Irrigation and study its advantages and disadvantages.
10. Collect various pests, classify them, and decide the method of their control.
11. Study various grafting methods. And prepare 5 different types of graft for 5 different trees.
12. Prepare an air layering graft (Gutty) on given 2 trees (Pomegranate/Fig).
13. Perform a Budding on given 2 trees (Ber/Rose/Orange/Lemon).
14. Prepare a Wedge Graft on two given mango trees.
15. Disassemble the given Knapsack Pump and assemble.
16. Collect the ripen crop and manage its sale.
17. Prepare the balance sheet for the cultivated crop.
18. Guess the age of an animal (cow/bull) from its teeth.
19. Measure the temperature and respiration of the given animal.
20. Estimate the weight of the given animal from its body size.
21. Manage the feed of a milch animal, considering the weight, milching capacity and TDN.
22. Measure the body temperature of given 5 chicks.
23. Visit a dairy study its management viz. milching rate, testing of milk, storage, transport etc.
24. Take lactometer reading of milk of various qualities.
25. Visit an AI center, study its work and write the advantages and disadvantages of AI.
26. Manage and grow the given broiler chicks of 1 day age, till their saleable age.
27. Weigh any 10 chicks and calculate their market price from their average weight.
28. Manage the food and water for 10-20 broiler chicks of 2 day age.
29. Compare the two methods of poultry keeping by drawing graph of age v/z weight.
30. Vaccinate the given 10 broiler chicks by Lasota.
31. Feed water to 10 broiler chicks.
32. Irrigate the given 5 trees by Drip Irrigation Method. Measure the water received by each tree within an hour.
33. Cultivate any cereal/cash crop on a land admeasuring 10 Guntha.
34. Prepare silage of 2000-3000 kg.
35. Control the pests on a particular crop.
36. Prepare a nursery, school garden etc.
37. Participate in the management of an AI center at least for a month and prepare a report.
38. Vaccinate the given Milch animals.
39. Take a crop by using mulching paper.
40. Production of plants in a nursery such as rose, Mango, Mogra , Coconut etc.



## SECTION IV HOME & HEALTH

1. Prepare 5 cm long samples of running stitch and buttonhole stitch of hand sewing.
2. Prepare 5 cm long samples of machine stitch and hem of hand sewing.
3. Prepare 2 samples measuring 5 cm length by using chain stitch and cross-stitch of embroidery work.
4. Prepare a sample measuring 10 cm length by using chain stitch and cross-stitch of embroidery work.
5. Mend the given torn cloth by Darning.
6. Prepare a pattern measuring 5 X 8 cm by using Garter Stitch.
7. Prepare a pattern measuring 5 X 8 cm by using Reed Stitch.
8. Identify the given cereals and pulses. Weigh out them in proper quantity so as to get given calories and protein contents.
9. Perform the simple water test of the given water sample.
10. Test the given soil sample for  $p^H$ .
11. Find the proportion of Phosphorous in the given soil sample.
12. Find the proportion of Potassium in the given soil sample.
13. Find the proportion of Organic Carbon in the given soil sample.
14. Find the proportion of Nitrate Nitrogen in the given soil sample.
15. Find the proportion of Ammoniac Nitrogen in the given soil sample.
16. Find the proportion of Hemoglobin in the given blood sample.
17. Find the blood group of the given blood

sample.

18. Prepare a Sauce from the given Tomatoes.
19. Prepare a Chikki from the given material.
20. Prepare Khoa from the given quantity of milk.
21. Use a solar dryer and dry the vegetables.
22. Make a Nankatai by using oven.

## STANDARD X Paper I Drawing, costing & I.T. (03 Period per week, Total 90 Periods)

### 1. Drawing \*

- 1) \* Orthographic Projections of fabricated jobs – 2 sheets **(24 Periods)**
- 2) \* Isometric Drawing of fabricated job – 1 sheet
- 3) Drawing & Reading graphs – 3 sheet
- 4) Conversion of contours into profiles – 2 sheet
- 5) Electric wiring diagrams (Tube Light , Go down , Staircase ) – 3 sheet
- 6) Flow chart – 1 sheet

\* Students to make free hand sketches of hand tools and object of daily use, in the drawing sheet under Orthographic and Isometric projection.

### 2. Costing

#### Costing of all project works Note Book

- 1) Costing of Engineering Section Project. Costing of Energy & Environment Section Project
- 2) Costing of Agriculture and AH Project
- 3) Costing of Home & Health Project.



### 3. Information Technology

- 1) Word Processing – e.g. M.S. Word – Project Report Writing etc.
- 2) Spread Sheet – e.g. M.S. Excel – As required by the project work.
- 3) Presentations preparing – e.g. M.S. Power Point – Presentation of entire project, recipes
- 4) Internet – Web Browsing & searching.

#### Paper II

#### Theory

(01 Period per week, Total 30 Periods)

#### SECTION I ENGINEERING (Total 08 Periods)

- 1) Scalar & Vector
- 2) Friction and Lubrication
- 3) Work, power and force
- 4) Budget and estimation
- 5) Fabrication

#### SECTION II ENERGY AND ENVIRONMENT (08 Periods)

- 1) Flow of Electric Current.
- 2) Starter and motor
- 3) I.C. Engines
- 4) Ground Water and Management of water.
- 5) Water pumps

#### SECTION III AGRICULTURE & ANIMAL HUSBANDRY (06 Periods)

- 1) Pest and insect control
- 2) Nursery Technology.
- 3) Artificial Insemination and its benefits

#### SECTION IV HOME AND HEALTH (08 Periods)

- 1) Diet & Nutrition
- 2) Methods of preserving food
- 3) Methods of preserving agriculture products
- 4) Packing, costing and market survey  
Paper II

#### PRACTICAL CUM PROJECT (08 Period per week, Total 240 Periods)

In standard the students are supposed to develop 4 projects from each of the four sections. The project work itself is considered as practical. The following skills are expected from the students-

- 1) Planning the project, report writing, drawing conclusions, referring to earlier work.
- 2) Technical skills from all the 4 sections.
- 3) Produce assets for school or community.

Costing & estimation, selling and earning profit.

(A sample list of various Projects is given below. The students are supposed to takeover any one such project either individually or in groups. The reports, graphs, flowcharts, costing should be done with the help of various office packages of computer.)

#### SECTION I ENGINEERING

Prepare a hand device to peel the coconut.

- 1) Prepare a bucket, tumbrel, Letter Box from sheet metal.



- 2) Undertake a plumbing work for supply and distribution of drinking water.
- 3) Construction and Setting up a W.C. Block.
- 4) Construct a Ferro cement tank for water storage.
- 5) Prepare Ferro cement articles for daily usage. (e.g. water tanks of various shapes, pots for plants, Ferro cement sheets for walls, shades etc.)
- 6) Construct brickwork for routine usage. (Part of house, room, shade, drainage / sanitary system, toilets, gate poles etc.)
- 7) Prepare articles viz. Poultry Cage, Notice Board , Paper Stand , T-Poi , Paper Weight, Pipe vice, Bench vice, wheelbarrow, cot, rack, shelf, Table, chair, pot stand, and School benches, Tree Guard, Memento ,Exam Pad etc.
- 8) Prepare equipment used in agriculture viz. burrow.
- 9) Make an oil extractor for groundnuts.
- 10) Paint a room or board and find the cost of this work.
- 11) Make a Solar Dryer, Solar Cooker, Rain gauge etc.

## **SECTION II ENERGY & ENVIRONMENT**

- 1) Wiring of households or school premises.
- 2) Installing a water pump.
- 3) Maintenance of a Hand Pump, biogas plant
- 4) Installing a prime mover- electric motor or diesel engine.

- 5) Make LED products such as AC bulbs, DC Bulbs, Torches etc.
- 6) Survey of percolation tank.
- 7) Repair and maintain a domestic electric appliance viz. iron, mixer, and rechargeable battery, fan.
- 8) Motor panel box repairing and connection to the motor.
- 9) Prepare the charcoal from wood.
- 10) Building bunds for small percolation tank.
- 11) Repair CFL Bulb.
- 12) Make 5 Household Earthing in a village.
- 13) Maintenance of invertors and lead acid batteries.

## **SECTION III AGRICULTURE & ANIMAL HUSBANDARY**

- 1) Vaccination of poultry, goats etc.
- 2) Develop a nursery for social forestry or fruit plants etc. and sell the plants.
- 3) Making silage of 2000-3000 kg
- 4) Prepare the school garden or personal garden
- 5) Grow & sell 25 broiler birds.
- 6) Pest Control for at least 5 different crops.
- 7) Prepare a vermin compost and vermin wash.
- 8) Maintaining a dairy at least for 1 month including milk test, record maintaining, profit calculations etc.
- 9) Sample study of effects of various fertilizers on any one crop.
- 10) Practice the Hydroponics (Farming without soil) Techniques for various plants.



- 11) Practice at the village A.I. center at least for 1 month.
- 12) Prepare a organic fertilizers.

#### **SECTION IV HOME & HEALTH**

- 1) Measure HB proportion of students, pregnant women etc.
  - 2) Measure HB, cell count of animal blood.
  - 3) Prepare pickles, jams, jelly, chikki, salted groundnuts, salted soybeans , Soya milk , Tutti-Frutti , Nankatai etc. sale the items and earn profit.
  - 4) Quality analysis of drinking water of village sources.
  - 5) Making simple garments such as Bags, Purse, Scarp etc.
  - 6) Developing low cost, high calorie menus.
  - 7) Prepare/ practice time & energy saving appliances viz. solar cooker, pressure cooker roaster etc.
  - 8) More diagnostic tests blood grouping.
  - 9) Soil sample testing for farmers.
  - 10) Make sweater, embroidered garments etc. and sale them.
  - 11) Make a vapors of Potato, banana etc.
- 







## Elements of Mechanical Engineering (V2)

According to the latest frontline curriculum declared more emphasizes given on imparting vocational skills at secondary education level. Introduction to Basic Technology is in consistency with this frontline curriculum. It imparts practical Training of various vocational skills. The students are trained to solve the daily life problems by using those skills. The pre-Vocational Education should provide some work experience to the students for preparing them for world of work.

This curriculum is designed to acquaint the students to provide them basic skills. The skills learnt while carrying out jobs will be useful to the student and it need arises, he can develop these skills further and acquire self and /or wage employment.

### Objectives:

The Objectives of Pre Vocational Education at the secondary stages are...

1. To develop the fundamental workshop skills useful in everyday life
2. To develop skill in handling and use of different tools, instruments and accessories.
3. To facilitate the student in making choice of vocational courses at the higher secondary level.
4. To acquire basic knowledge and understanding of Engineering Drawing.
5. To enable students to learn to process words and number, analyze data, communicate ideas effectively and

make the optimum use of computer recourses.

6. To enable student to learn to use the World Wide Web in order to gather knowledge and communicate with students and the academic community all over the world
7. To develop pride in labor work and use skills acquired in daily life.

This Pre Vocational student has the following aims:

1. Capability to think and act
2. A work culture
3. Delivery channel for New Technology- The school Technical wing in remote rural area also acts as a channel for delivery of new technology because of the availability equipment and staff and their use in service to the community
4. Plan future Career.

Benefits expected from this:

The student will get a wide exposure the work. He will be guided to apply acquired knowledge and skills to socially useful work. This will generate self confidence in the student by making services available to the community; education will be brought closer to the community.

The community, the staff and to limited extent the students will also share economic benefit. The student will be encouraged to develop his own potential and will be helped to make choice of his future career.

**Instructions:**

1. The whole scheme of Pre-Vocational is explained through three points. Scheme of the examination, Syllabus, task list.
2. The syllabus is just a guide line for the teacher. The teachers are expected to refer the teaching material and reference book, locally useful information related to practical Skill.
3. Each period comprises of 30 to 35 minutes. It is taken for granted that this subject will be allotted 12 periods per week per standard. In general during one educational year 35 weeks are available [365 days of a year - 80 holidays, 52 Sundays, 12 unit test days, 24 terminal and final exam days, 5 gathering and local holidays etc days = 192 days = 30 weeks ] considering 30 weeks per year x 12 periods per weeks = 360 periods per year.
4. The teachers may require extra time to teach the section more effectively. The school administration is also expected to provide necessary infrastructure.
5. Most of the sections are expected to be taught practically Hence it is advisable that the theory periods may be utilized for the Practical or Projects or some theory topics can be effectively taught practical. Hence the policy to distribute the workload between lecturer and Instructor should be flexible.
6. The Head Master and Head of the Technical Department are also expected to distribute the available workload between Lecturer and instructor equally in available staff.
7. Elements of Mechanical Engineering (V2)

**STD – IX (Paper-I)**  
**Engineering Drawing and Information Technology**  
**Section I- Engineering Drawing**

Sr. No.	Topics	Sub Topics	Periods <sup>1</sup> 15
1.	Introduction	Principal, Objectives and application of Engineering Drawing.	
2.	Drawing instruments	Drawing instruments and their applications, Layout of drawing sheets Sizes of Drawing papers as per I.S.I. (i.e.A1, A2, A3, A4)	1
3.	Lettering and numerical	Lettering and numerical to I.S.I .	1
4.	Types of Lines and Dimensioning	a) Types of Lines used in engineering drawing, b) Dimensioning techniques	2





Sr. No.	Topics	Sub Topics	Periods 15
5.	Simple Geometrical Construction	a) Bisect a line, trisect a right angle, Divide a line into any number of parts b) Construction of Regular polygons c) Simple curves e.g. Ellipse	3
6.	Introduction to orthographic projection	a) Explaining the term plane H.P., V.P., A.V.P. and ground line. b) 1 <sup>st</sup> Angle and 3 <sup>rd</sup> Angle method of projection Orthographic projection of simple solids (Cube, cone, cylinder, prism, pyramid etc., by 3 <sup>rd</sup> Angle method (Standing position)	3
7.	Introduction to Isometric projections	A. Introduction to isometric projections B. Drawing of isometric scale, C. Difference between isometric drawing and isometric projections D. Isometric views of simple solids with dimension	4

### PRACTICALS

45 Periods

The following assignments are to be drawn on half imperial drawing sheets.

1.	Lines, letters, and numbers	1 Sheet	9
2.	Simple Geometrical Constructions involving Divide of line into equal number of parts, Construction of Regular polygons, Simple curves e.g. Ellipse (By one Methods)	1 Sheet	9
3.	Orthographic Projections of simple solids like Prisms and Pyramids	1 Sheet	9
4.	Orthographic Projections of simple solids like cylinder, cone	1 Sheet	9
5.	Conversion of simple pictorial view into orthographic view	1 Sheet	9



**Section II**  
**Introduction To Information Technology**  
**Theory**

Sr.No	Topics	Sub-topics	Details	Periods
1	Computer	Fundamentals	Definition of Computer, Block Diagram of Computer, Function of Different Units of Computer	1
2	Operating Systems & Accessories	Introduction to Operating Systems and Accessories	DOS, Windows, Unix, Linux	1
			Study of various Accessories Notepad, Word pad, Paint, Calculator	1
3	Office Automation Tools	Introduction to MS Word Creating and Editing a Document	Starting MS Word ( MS Word 2003) Creating a New Document, Selection of text, Editing text, Insert / type over, Delete, undoing mistakes, cut, copy, paste	1
		Formatting Paragraph	Font, Selection, Size And Style (B/I/U) Paragraph Formatting, Paragraph Spacing, Line Spacing. Borders and shading	1
		Miscellaneous	Spelling checking, creating a table, Adding data to the table, changing row & column size, Inserting a picture.	
		Page formatting and Printing	Inserting page numbers, margins, headers & footers, Page Setup, preview, Printer, Selection, Copies, Printing Documents	1
		Introduction to MS Excel	Starting MS Excel (MS Excel 2003) What Is Worksheet, Screen layout, choosing commands, Creating Worksheet, Saving Worksheet, Opening & Exiting worksheet, Entering data,	1



Sr.No	Topics	Sub-topics	Details	Periods
		Editing worksheet Creating Formula	Editing cell content, Inserting - Cell, Column, rows, Deleting - Cell, Rows, Column, Formatting- Cell, Rows, Column, Moving cells, Copying cells, Clearing-data, content, format, undoing mistakes, Creating a formula, Arithmetic Operations Only	1
		Insert charts	Charts-Line, Bar, Pie, XY	1
		Introduction to MS Power Point	Starting MS Power point ( MS Power Point 2003) Preparing Slides, typing into slides, file management, Changing slide views, Changing text style, Slide show	1
		Multimedia	What is multimedia? Use Of Multimedia- Application Of Multimedia In Power Point Presentation (Sound Recorder).	1
4	Communication	Concept and Type	Concept of Communication, Formal, Informal, Oral, Writing.	1
		Modes	Phone, Fax, Internet, Postcard, Newspaper, Television, Mobile etc.	1
5	Internet	Modes Introduction to Internet	What is Internet? Uses of Internet.	1
<b>Practicals</b>				
1	MS Office	M S Word	1. Prepare a document- An article, story in English using the word processing including selection of points marking index word and titles for contents page Approx. 200- 400 words or 2k bytes.	8
			2. Type Any Paragraph From Your English Reader Book And Apply Spell Check On It.	8



Sr.No	Topics	Sub-topics	Details	Periods
		MS Excel	3. Prepare A Mark sheet Of Six Subject Enter At least 10 Records And Use Sum, Auto Sum, Insert, Delete, Records, Find Grand Total Of Each Student Using Sum Formula.	8
			4. Prepare Different Charts (Pie, XY, Bar, Line)	8
			5. Prepare One Presentation Using Power Point (At least Three Slides)	8
		MS Power Point	5. Prepare One Presentation Using Power Point (At least Three Slides)	8
2		Communication	6.Study of sending fax message	5
<b>Achievements</b>				
<b>Each student will write</b>				
a) An article, story in English using the word processing including selection of points marking index word and titles for contents page Approx. 200- 400 words or 2k bytes.				
b) Each Student will prepare a worksheet of mark list and perform various mathematical functions. Prepare graphs (charts) etc.				
c) Each student will prepare at least 3 slides with animation effects and sound effects.				
d) Each student will print his own page from word processing & spread sheet practical.				



**Elements of Mechanical Engineering (V2)**  
**STD - IX (Paper-II)**  
**Theory**

Sr. No.	Shop	Topics	Sub Topics	Periods
1.	Fitting	Introduction	Introduction of the fitting shop and importance of Safety precautions.	2
		Description of measuring instruments	Steel Rule, Vernier caliper, Micro metre, Outside and inside calipers, spring and firm joint, Try square, Divider	3
		Marking and measuring tools	Scriber , Center punch, Dot punch, Surface Gauge, V Block, Angle plate, Surface plate, Height gauge	3
		Files	Classification on the basis of shape- Flat, Square, Triangular, Round, Half round, Knife, Classification on the basis of Cut- Single, Double, Rasp, Second Classification on the basis of purpose-Rough, Bastard, Smooth, Dead smooth	2
2.	Welding	Introduction	Importance of the welding and Safety precautions in gas and electric welding	2
		Tools and Equipments	Description, use, maintenance of tools and equipments used in welding	4
		Process of welding	Process of arc and gas welding, terms, types of welded joints, Flames -their structure, types, setting and applications.	4
3.	Plumbing	Introduction	Introduction to the Plumbing shop	2
		Plumbing tools and devices	Dies and die stock, pipe cutter, adjustable and monkey wrench, pipe vice, pliers, spanners, spirit level, line dori etc	2



		Classification	Description and uses pipe and their classification, pipe threading and pipe joints of pipes.	4
		Accessories	Description and use of bends, elbows, sockets, tee, unions, couplings, nipples etc.	2
4.	Carpentry	Introduction	Introduction of the carpentry shop and Safety precautions and first aid	1
		Hand tools	Classification of hand tools, carpenter's work bench, marking and measuring tools , different types of planes, type of saws, different types of chisels, holding and driving tools, drilling equipments	3
		Timber	Timber, Different types of timber used in carpentry artificial wood i.e. plywood, particle board used in carpentry	3
		Wood working joints	Common wood working joints, their uses joining materials Nails, Glue, Synthetic, adhesive etc.	3
5.	Basic Electricity	Introduction	Introduction of the Basic Electricity shop. Importance of Safety precautions and first-aid, Treatments for electric shocks etc.	2
		Units, fundamental laws	Units, fundamental laws, terms and definition, Current, Resistance Voltage. Resistance in series and parallel, Specific effects of electric current. Ohms law and its applications	2
		Conductors and insulators, wires	Conductors and insulators. Kinds of insulators as regards to insulation and voltage. Types of wires, cables, their types	3
		Electrical hand tools and Accessories	Common hand tools used in shop, Accessories -Controlling- All types of switches , Holding- All types of Holders, Protecting- All types of Fuses, General- ceiling rose, plug socket, Distribution board.	3



6.	Auto Engineering	Introduction	Introduction to Automobile vehicles	4
			Parts of two-wheeler and their function, frame, wheels, tyres, brake, engine gear box, clutch etc, chain and belt drive	6
PRACTICALS				
1.	Fitting	1) Marking out, scribing lines, filing flat surface, checking flatness		6
		2) Filing four edges to faces and prepare the piece within dimensions, checking the squareness and dimensions		8
		3) Sawing and champhering		8
		4) Simple square fitting in male and female joints		8
2.	Welding	1) Familiarity with arc welding process striking an arc,		6
		2) Preparation of joints, practice of straight line beads.		8
		3) Open corner joint weld on M.S. Materials.		8
		4) T fillet joint weld on M.S. Materials.		8
3.	Plumbing	1) Familiarity with different plumbing tools to hold and cutting G.I./ P.V.C pipe		6
		2) Threading different G.I./P.V.C pipes and join them with the coupling, tees, elbows, bends etc. as per simple layout		8
		3) Fitting of cocks, valves, unions and water metre on a water line		8
		4) Installation of a wash basin, with all its connections and fitting		8
4.	Carpentry	1) Planning the faces and sides of a wooden piece making them.		7
		2) Flat within dimensions and 90 to each other to check the squareness and flatness, sawing by the different methods.		8
		3) Preparing simple job, using simple half lap joints or cross half lap joint		8
		4) Preparing an utility article using above joints		7
5.	Basic Electricity	1) Single and Standard conductors forming different joints like Britania, Tee, Western Union etc		6



		2) Study the connection of simple series and parallel circuits involving various combinations	6
		3) Wiring jobs on wiring board for practice in fixing and connecting different accessories	6
		4) Connecting fluorescent tubes/ ceiling fan through regulator/ Electric iron. General Safety to be observed	6
		5) Simple wiring circuits in P.V.C. pipe and P.V.C. casing and capping	6
6.	Auto Engineering	1) Replacing and setting a clutch cable, replacing and adjusting gear cable for two wheeler.	8
		2) Checking, replacing and testing the bulbs of head and tails break lights, Side Indicator (Only for demonstration)	8
		3) Removing and refitting the front wheel of two wheeler cleaning and polishing the break shoes.	8
		4) Remove spark plug, clean it, Prepare and Inspection, Reassembled	6

### Project Work - For Example

- 1) Book Rack
- 2) Black board stand
- 3) Photo Frame
- 4) Agricultural instruments (Hand Operated)
- 5) Towel Bar

### NOTE-

1. Project work should include estimating and costing. Imbibe product consciousness and quality consciousness in the students.
2. The project work given in syllabus is only for guideline candidate may choose any one project and prepare it. He / She has liberty to prepare any useful project other than the mentioned project. He / She may produce a collection of information regarding latest indigenous technology. He / She may write a visit report about any nearest industry and their product.
3. One project should be compulsory for each students / group of maximum ten students.





**Elements of Mechanical Engineering (V2)**  
**STD -X (Paper-I)**  
**Engineering Drawing and Information Technology**  
**Section I- Engineering Drawing**  
**Theory**

Sr. No.	Topics	Sub Topics	Periods
1.	Surface Development	Surface development of simple solids like (cube, cone, cylinder, prism, pyramid etc.)	3
2.	Orthographic Projections	Orthographic projections of simple machine parts in common use by third angle method	3
3.		Blue Print Reading Reading of Simple blue prints, Exercise on blue print reading & practice	2
4.	Isometric Projections	Isometric Projection, Construction of Isometric Scale, its use, Isometric Axis, Isometric views by natural scale, Isometric projections of simple objects by Box method	3
5.	Introduction to machine drawing	a) Rivets and their types (Heads) b) Screw threads and their types. c) Screw threads Terminology d) Nuts - Types of nuts (square, hexagonal, ) e) Bolt - Types of bolts (square, hexagonal, ) f) Keys, cotters (Simple types) & washers	4

**PRACTICALS**

The following assignments are to be drawn on half imperial drawing sheets.

45 Periods

1.	Simple developments of cone, prism, cylinder and pyramid (any two)	1 Sheet	9
2.	Orthographic projections of machine parts	1 Sheet	9
3.	Isometric views from given orthographic view	2 Sheet	18
4.	Free hand sketches of threads rivets, nuts, Keys, cotters & washers	1 Sheet	9



## Section II

### Introduction To Information Technology Theory

S.No	Topics	Sub-topics	Details	Periods
1.	Introduction to AutoCAD	Necessity, Opening Auto CAD	Necessity Advantages Conventional methods of drafting, Auto CAD, Screen, Different Tool Bars, Command line, Setting Limits - Metric.	1
		Co-ordinate System	Absolute, Relative, Polar	1
		Commands	<b>Draw commands</b> : Line, P-Line, Circle, Polygon, Arc, Ellipse, Rectangle. <b>Modify Commands</b> : Erase, Copy, Move, Offset, Trim, Extent, Break, Fillet, Scale, Array, Mirror, Chamfer, Explode.	1
		Line types and Dimensioning	Changing line type, Toolbar, linear, Angular	1
2.    3	Introduction To Computer Networking	Introduction	What is a network? Use of Networks.	1
		Types, Topologies	LAN, MAN, WAN etc. Star, Ring, Bus, Mesh etc.	1
		Components	Modem, Switch, Hub, Routers.	1
	Internet	Introduction	What is Internet? How it Works? Domain, Address, Internet Service Provider, Browser	1
		Application,	E-mail, Web Browsing,	1
		E- commerce	Searching, Web Applications like online banking, online reservation, online shopping & online exam. Concept of E-commerce, Advantages and Applications	
4	HTML	Introduction	Language used in World Wide Web, concepts of Hyper Text Mark up & language, Advantage & Disadvantage	1



		Structure of HTML	Structure of HTML Documents, Tags, Attributes.	1
		Application	Creating Web Pages using HTML tags	1
5	Introduction to C++ Language	Introduction	Introduction to C++ language, Application & Features of C++.	1
		Tokens in C++, Data types	Keywords, Identifiers, Variables, Constants , Strings and Operators, Basic data types	
		Structure	A structure of C++ Programme	1
Practicals				
1.	Auto Cad	1) Drawing of simple object and like Rectangle, Circle etc.		6
		2) Drawing of simple orthographic Views with Dimensions.		
2	Networking and Internet	3) Internet Browsing (1-Practical)		7
		4) Sending and Accessing e-mail message (1-Practical)		7
3.	HTML	5) Simple Programmes in HTML Language (2-Practicals)		16
4	C++	6) Simple Programmes in C++ Language (2-Practicals)		16
Achievements				
a) Each Student will draw an orthographic projection of simple solid by using AutoCAD.				
b) A batch of students will browse the internet and send and receive at least one e-mail message.				
Important Note				
1) Printed study material and Practical Assignment should be prepared by the teacher and made available to the students to save the teaching time.				
2) Teacher should prepare his own power point presentation on different topics and show it to students.				
3) Teaching should be done on-line with the help of computer and LCD				



**Paper-II Elements of  
Mechanical Engineering (V2)  
Theory**

Sr. No.	Shop	Topics	Sub Topics	Periods
1.	Fitting	Filing process	Technique of filing, Flat filing, Angular filing, Straight filing Cross filing draw filing	2
		Drilling	Introduction to drilling, Parts of Drill- Shank, Tang, Body clearance, Margin (lead), Flute, Web, Lip clearance, Dead centre, Drill- Flat Twist, Carbide tipped, Straight shank, Taper Shank Cutting angle of drill	2
		Threading	Internal threading, tap and tap wrench, Care can be taken while tapping	1
		Drilling machines	Introduction to hand operated, bench and pillar type electric drilling machines (With Block diagram) important part and their functions, types, Specifications, Operating principals care and maintenance.	3
		Heat treatment	Heat treatment and its important	2
2.	Welding	Welding equipments	Welding equipments i.e. oxygen and acetylene cylinders, Regulators, blow pipes, Their selection to use care and maintenance.	4
		Welding electrodes	Welding electrodes their types selection according to jobs to be performed, effect of moisture on electrodes	2
		Welding techniques	Welding techniques right hand left hand welding, common welding defects and their causes, precaution to be taken to avoid welding defects. Common welding symbols used in drawing.	4



Sr. No.	Shop	Topics	Sub Topics	Periods
3.	Plumbing	Cocks and valves	Types of cocks – pillar, concealed, stop, automatic, ball, multiuse, spring loaded etc. their uses various types of valves like sluice, non-return, gate valve, air valve, foot valve, their uses, care and maintenance	4
		Pumps	Pumps and their classification, centrifugal pump and hand pump, their principle of working, parts and its function in short. Domestic and irrigation pump in common use.	3
			Installation of domestic pump, pipe connection of pumps and fitting, priming used for centrifugal pump and hand pump trouble shooting.	3
4.	Carpentry	Wood working Machine	Different types of wood working Machines e.g. wood turning lathe, circular saw, band saw planning machine etc. Their description, parts, functions. Care and maintenance of the machines.	6
		Accessories	Various accessories, hinges, tower bolt, aldrops, door locks, handles etc. used in normal carpentry work, their types, specification materials and uses	4
5.	Basic Electricity	House wiring, M.C.B, Wiring Symbols, Measuring instruments	Different types of house wiring M.C.B. and its important. Wiring symbols, Connections of electrical measuring instruments in circuits, i.e. ammeter, voltmeter, Energy- meter, Meager	2
		Contact Breaker	Earth Leakage contact Breaker and I.E. Rules.	2
		Wiring layout	Wiring layout for domestic purpose (Additional Knowledge of electrical power saving lamp, electronic chokes etc.)	3



Sr. No.	Shop	Topics	Sub Topics	Periods
6.	Auto Engineering	A.C. Fundamentals terms	A.C. Fundamentals different terms used in A.C. and their inter relation between current, voltage, power factor, General idea of Single phase and three phase	3
		Invertors	Introduction , working	1
		Introduction to Engines	Introduction to Internal combustion Engines and External Combustion Engines, Two stroke and four stroke engine, Diesel and petrol engine. Their types, application and disadvantages.	4
		Systems	Engines Fuel system, Ignition system, cooling system	3
		Maintenance	Periodical maintenance of two-wheeler	3
<b>PRACTICALS</b>				
1.	Fitting	1) Marking out, with location of holes of different sizes, on already filed piece drilling tapping and counter sinking on a hole.		10
		2) Making a job of any Hexagonal shape within an accuracy of 0.5 mm		10
		3) Simple male and female job.		10
2.	Welding	1) Inside corner joint in flat position		10
		2) Fillet lap joint in Horizontal position		10
		3) Butt Joint of M.S. plate		10
3.	Plumbing	1) Mounting a centrifugal pump with prime mover on test bed with all fitting running testing		10
		2) Piping and fitting of geyser, shower with hot and cold water services as per layout		10
		3) Dismantling of centrifugal pump, cleaning the parts and reassembling		10
4.	Carpentry	1) Simple Dovetail joint.		10



		2) Mortise and tenon joint	10
		3) Wood turning involving preparation utility article like file handle, rolling pin table lamp, dombells etc.	10
5.	Basic Electricity	1) To draw wiring diagrams for connecting voltmeter, Ammeter and Energy meter, connect and study reading	8
		2) Different wiring exercises for connection and fixing electrical accessories (Minimum two exercise)	10
		3) Connection to geyser and storage type water heater.	6
		4) Connection to domestic Electrical water pump by using D.O.L. starter in the circuit.	6
		2) Cleaning of a spark-plug	10
		3) Battery dismounting from a vehicle, checking specific gravity of electrolyte	10

### Project Work – For Example

- 1) A kitchen Rack
- 2) Shoe Stand
- 3) Agricultural instruments (Hand Operated)
- 4) A window grill
- 5) Wooden Bracket

### NOTE-

1. Project work should include estimating and costing. Imbibe product consciousness and quality consciousness in the students.
2. The project work given in syllabus is only for guideline candidate may choose any one project and prepare it. He / She has liberty to prepare any useful project other than the mentioned

project. He / She may produce a collection of information regarding latest indigenous technology. He / She may write a visit report about any nearest industry and their product.

3. One project should be compulsory for each students / group of maximum ten students.

### Pre-Vocational subject

Elements of Electrical and Electronics Technology (V3)

According to the latest frontline curriculum declared more emphasizes given on imparting vocational skills at secondary education level. Introduction to Basic Technology is in consistency with this frontline curriculum. It imparts practical Training of various vocational skills. The students are trained to solve the daily life problems by



using those skills. The Pre-Vocational Education should provide some work experience to the students for preparing them for world of work.

This curriculum is designed to acquaint the students to provide them basic skills. The skills learnt while carrying out jobs will be useful to the student and it need arises, he can develop these skills further and acquire self and /or wage employment.

### Objectives

The Objectives of Pre-Vocational Education at the secondary stages are

1. To develop the fundamental workshop skills useful in everyday life
2. To develop skill in handling and use of different tools, instruments and accessories.
3. To facilitate the student in making choice of vocational courses at the higher secondary level.
4. To acquire basic knowledge and understanding of Engineering Drawing.
5. To enable students to learn to process words and number, analyze data, communicate ideas effectively and make the optimum use of computer recourses.
6. To enable student to learn to use the World Wide Web in order to gather knowledge and communicate with students and the academic community all over the world
7. To develop pride in labor work and use skills acquired in daily life.

This Pre-Vocational student has the following aims:

1. Capability to think and act
2. A work culture

3. Delivery channel for New Technology- The school Technical wing in remote rural area also acts as a channel for delivery of new technology because of the availability equipment and staff and their use in service to the community
4. Plan future Career.

### Benefits expected from this:

The student will get a wide exposure the work. He will be guided to apply acquired knowledge and skills to socially useful work. This will generate self confidence in the student by making services available to the community; education will be brought closer to the community.

The community, the staff and to limited extent the students will also share economic benefit. The student will be encouraged to develop his own potential and will be helped to make choice of his future career.

### Instructions

1. The whole scheme of Pre-Vocational is explained through three points. Scheme of the examination, Syllabus, task list.
2. The syllabus is just a guide line for the teacher. The teachers are expected to refer the teaching material and reference book, locally useful information related to practical Skill.
3. Each period comprises of 30 to 35 minutes. It is taken for granted that this subject will be allotted 12 periods per week per standard. In general during one educational year 35 weeks are available [365 days of a year - 80 holidays, 52 Sundays, 12 unit test days, 24 terminal and final exam days, 5 gathering and local holidays etc days = 192 days = 30 weeks ] considering 30 weeks per year x 12 periods per weeks = 360 periods per year.





4. The teachers may require extra time to teach the section more effectively. The school administration is also expected to provide necessary infrastructure.
5. Most of the sections are expected to be taught practically. Hence it is advisable that the theory periods may be utilized for the Practical or Projects or some theory topics can be effectively taught practical. Hence the policy to distribute the workload between lecturer and Instructor should be flexible.
6. The Head Master and Head of the Technical Department are also expected to distribute the available workload between Lecturer and Instructor equally in available staff.



**10.3**

## Elements of Electrical and Electronics Technology (V3)

**STD -IX (Paper-I)**  
**Engineering Drawing and Information Technology**  
**Section I- Engineering Drawing**  
**Theory**

Sr. No.	Topics	Sub Topics	Periods 15
1.	Introduction	Principal, Objectives and application of Engineering Drawing.	1
2.	Drawing instruments	Drawing instruments and their applications, Layout of drawing sheets Sizes of Drawing papers as per I.S.I. (i.e.A1, A2, A3, A4)	1
3.	Lettering and numerical	Lettering and numerical to I.S.I .	1
4.	Types of Lines and Dimensioning	a) Types of Lines used in engineering drawing,	2
		b) Dimensioning techniques	
5.	Simple Geometrical Construction	a) Bisect a line, trisect a right angle, Divide a line into any number of parts	
		b) Construction of Regular polygons	
		c) Simple curves e.g. Ellipse	3
6.	Introduction to orthographic projection	a) Explaining the term plane H.P., V.P., A.V.P. and ground line.	
		b) 1st Angle and 3rd Angle method of projection	



Sr. No.	Topics	Sub Topics	Periods
		c) Orthographic projection of simple solids (Cube, cone, cylinder, prism, pyramid etc., by 3rd Angle method (Standing position)	3
7.	Introduction to Isometric projections	a) Introduction to isometric projections	4
		b) Drawing of isometric scale,	
		c) Difference between isometric drawing and isometric projections	
		d) Isometric views of simple solids with dimension	

### PRACTICALS

The following assignments are to be drawn on half imperial drawing sheets.

45 Periods

1.	Lines, letters, and numbers	1 Sheet	9
2.	Simple Geometrical Constructions involving Divide of line into equal number of parts, Construction of Regular polygons, Simple curves e.g. Ellipse (By one Methods)	1 Sheet	9
3.	Orthographic Projections of simple solids like Prisms and Pyramids	1 Sheet	9
4.	Orthographic Projections of simple solids like cylinder, cone	1 Sheet	9
5.	Conversion of simple pictorial view into orthographic view	1 Sheet	9



## Section II - Introduction To Information Technology Theory

Sr.No	Topics	Sub-topics	Details	Periods
1	Computer	Fundamentals	Definition of Computer, Block Diagram of Computer, Function of Different Units of Computer	1
2	Operating Systems & Accessories	Introduction to Operating Systems and Accessories	DOS, Windows, Unix, Linux Study of various Accessories Notepad, Word pad, Paint, Calculator	1 1
3	Office Automation Tools	Introduction to MS Word Creating and Editing a Document Formatting Paragraph	Starting MS Word ( MS Word 2003) Creating a New Document, Selection of text, Editing text, Insert / type over, Delete, undoing mistakes, cut, copy, paste Font, Selection, Size And Style (B/I/U) Paragraph Formatting, Paragraph Spacing, Line Spacing. Borders and shading	1 1
		Miscellaneous	Spelling checking, creating a table, Adding data to the table, changing row & column size, Inserting a picture.	1
		Page formatting and Printing	Inserting page numbers, margins, headers & footers, Page Setup, preview, Printer, Selection, Copies, Printing Documents	1
		Introduction to MS Excel	Starting MS Excel (MS Excel 2003) What Is Worksheet, Screen layout, choosing commands, Creating Worksheet, Saving Worksheet, Opening & Exiting worksheet, Entering data,	1



Sr.No	Topics	Sub-topics	Details	Periods
		Editing worksheet Creating Formula	Editing cell content, Inserting - Cell, Column, rows, Deleting - Cell, Rows, Column, Formatting- Cell, Rows, Column, Moving cells, Copying cells, Clearing-data, content, format, undoing mistakes, Creating a formula, Arithmetic Operations Only	1
		Insert charts Introduction to MS Power Point	Charts-Line, Bar, Pie, XY	1
			Starting MS Power point ( MS Power Point 2003) Preparing Slides, typing into slides, file management, Changing slide views, Changing text style, Slide show.	1
		Multimedia	What is multimedia? Use Of Multimedia Application Of Multimedia In Power Point Presentation (Sound Recorder),	1
4	Communication	Concept and Type Modes	Concept of Communication, Formal, Informal, Oral, Writing. Phone, Fax, Internet, Postcard, Newspaper, Television, Mobile etc.	1 1
5	Internet	Introduction to Internet	What is Internet? Uses of Internet.	1
<b>Practical</b>				
1	MS Office	M S Word	1. Prepare a document- An article, story in English using the word processing including selection of points marking index word and titles for contents page Approx. 200- 400 words or 2k bytes.	8
			2. Type Any Paragraph From Your English Reader Book And Apply Spell Check On It.	8
		MS Excel	3. Prepare A Mark sheet Of Six Subject Enter At least 10 Records And Use Sum, Auto Sum, Insert, Delete, Records, Find Grand Total Of Each Student Using Sum Formula 4. Prepare Different Charts (Pie, XY, Bar, Line)	8 8
		MS Power Point	5. Prepare One Presentation Using Power Point (At least Three Slides)	8
2		Communication	6.Study of sending fax message	5



Achievements	
Each student will write	
a) An article, story in English using the word processing including selection of points marking index word and titles for contents page Approx. 200- 400 words or 2k bytes.	
b) Each Student will prepare a worksheet of mark list and perform various mathematical functions. Prepare graphs (charts) etc.	
c) Each student will prepare at least 3 slides with animation effects and sound effects.	
d) Each student will print his own page from word processing & spread sheet practical.	

### Elements of Electrical and Electronics Technology (V3)

#### STD – IX (Paper-II) Theory

Sr. No.	Shop	Topics	Sub Topics	Periods
1.	Fitting	Introduction	Introduction of the fitting shop and importance of Safety precautions.	2
		Description of measuring instruments	Steel Rule, Vernier caliper, Micro meter, Outside and inside calipers, spring and firm joint, Try square, Divider	3
		Marking and measuring tools	Scriber , Center punch, Dot punch, Surface Gauge, V Block, Angle plate, Surface plate, Height gauge	3



		Files	<p>Classification on the basis of shape-Flat, Square, Triangular, Round, Half round, Knife</p> <p>Classification on the basis of Cut-Single, Double, Rasp, Second ,Classification on the basis of purpose-Rough, Bastard, Smooth, Dead smooth</p>	2
2.	Welding	Introduction	Importance of the welding and Safety precautions in gas and electric welding	2
		Tools and Equipments	Description, use, maintenance of tools and equipments used in welding	4
		Process of welding	Process of arc and gas welding, terms, types of welded joints, Flames -their structure, types, setting and applications.	4
3.	Plumbing	Introduction	Introduction to the Plumbing shop	2
		Plumbing tools & Devices	Dies and die stock, pipe cutter, adjustable and monkey wrench, pipe vice, pliers, spanners, spirit level, line dori etc	2
		Classification of pipes	Description and uses pipe and their classification, pipe threading and pipe joints.	4
		Accessories	Description and use of bends, elbows, sockets, tee, unions, couplings, nipples etc.	2
4.	Basic Electricity	Introduction	Introduction of the Basic Electricity shop. Importance of Safety precautions and first-aid, Treatments for electric shocks etc.	1
		Units, fundamental	Units, fundamental laws, terms and definition, Current,	3



		laws	Resistance, Voltage. Resistance in series and parallel, Specific effects of electric current. Ohms law and its applications	
		Conductors and insulators, wires	Conductors and insulators. Kinds of insulators as regards to insulation and voltage. Types of wires, cables their specifications and use	3
		Electrical hand tools and Accessories	Common hand tools used in shop, Accessories-Controlling- All types of switches , Holding- All types of Holders, Protecting- All types of Fuses, General- ceiling rose, plug socket, Distribution board.	3
5.	Electronics	Introduction	Common components used in electronic equipments	2
		Semi-conductor	Semi-conductor, atomic structure and P-type, N-type semi-conductors, PN junction diode and transistors	4
		Testing and assembly of electronic components.	1. Testing and checking (diodes and transistors) with the help of multi-meter 2. Soldering iron and assembly of components	4
6.	Electrical machines and domestic Appliances	Magnetism	Definition and properties of magnet, types of magnet-natural, artificial, law of magnetic force	2
		Electromagnetism	Magnetic rules, Faradays laws, Laws of electromagnetic Induction	2
		A.C. Generator	Introduction, Its principles, different parts, functions, Types of winding, Generation of alternating	2





			Voltage and current,	
		D.C. Generator	Introduction, Its principles, different parts, functions, Generation of D.C Voltage and current,	2
		Domestic Appliances	Study of electric Iron and Hot Plate	2

### PRACTICALS

1.	Fitting	1) Marking out, scribing lines, filing flat surface, checking flatness	6
		2) Filing four edges to faces and prepare the piece within dimensions, checking the squareness and dimensions	8
		3) Sawing and champhering	8
		4) Simple square fitting in male and female joints	8
2.	Welding	1) Familiarity with arc welding process striking an arc.	6
		2) Preparation of joints, practice of straight line beads.	8
		3) Open corner joint weld on M.S. Materials.	8
		4) T fillet weld on M.S. Materials.	8
3.	Plumbing	1) Familiarity with different plumbing tools to hold and cutting G.I. / PVC pipe.	6
		2) Threading different G.I./PVC pipes and join them with the coupling, tees, elbows, bends etc. as per simple layout	8
		3) Fitting of cocks, valves, unions and water meter on a water line	8
		4) Installation of a wash basin with all its connections and fitting	8
4.	Basic Electricity	1 ) Single and Standard conductors forming different joints like Britannia, Tee, Western, Union etc	6
		2) Study the connection of simple series and parallel	6



		circuits involving various combinations	
		3) Connecting ceiling fan through regulator/ fluorescent tubes/ Electric iron.	6
		4) Simple wiring circuits in P.V.C. pipe and P.V.C. casting and capping	6
		5) Wiring jobs on wiring board for practice in fixing and connecting different accessories	6
5.	Electronics	1) Study of resistance by colour code	6
		2) Use of multi-meter	6
		3) Check terminals of transistor, diode and capacitor	6
		4) Practice of soldering and assembly of different electronic components	6
		5) Study of display systems, LED and LCD	6
6.	Electrical machines and domestic Appliances	1) To check electromagnetic induction with the help of galvanometer	8
		2) Study of electromagnetic bell.	6
		3) Study of D.C. Generators and their parts	8
		4) Study of electric iron/hot plate and its parts	8

### Project Work – For Example

1. Book Rack
2. Blackboard stand
3. Photo Frame
4. Electronic Fence
5. Electronic Fuse

### NOTE

1. Project work should include estimating and costing. Imbibe product consciousness and quality consciousness in the students.
2. The project work given in syllabus is

only for guideline, candidate may choose any one project and prepare it. He / She has liberty to prepare any useful project other than the mentioned project. He / She may produce a collection of information regarding latest indigenous technology. He / She may write a visit report about any nearest industry and their product.

One project should be compulsory for each students / group of maximum ten students.



**Elements of Electrical and Electronics Technology (V3)**  
**STD –X (Paper-I)**  
**Engineering Drawing and Information Technology**  
**Section I- Engineering Drawing**

**Theory**

Sr. No.	Topics	Sub Topics	Periods 15
1.	Surface Development	Surface development of simple solids like (cube, cone, cylinder, prism, pyramid etc.)	3
2.	Orthographic Projections	Orthographic projections of simple machine parts in common use by third angle method	3
3.	Blue Print Reading	Reading of Simple blue prints, Exercise on blue print reading & practice	2
4.	Isometric Projections	Isometric Projection, Construction of Isometric Scale, its use, Isometric Axis, Isometric views by natural scale, Isometric projections of simple objects by Box method	3
5.	Introduction to machine drawing	g) Rivets and their types (Heads) h) Screw threads and their types. i) Screw threads Terminology j) Nuts - Types of nuts (square, hexagonal, ) k) Bolt - Types of bolts (square, hexagonal, ) l) Keys, cotters (Simple types) & washers	4

**PRACTICALS**

The following assignments are to be drawn on half imperial drawing sheets.

45 Periods

1.	Simple developments of cone, prism, cylinder and pyramid (any two)	1 Sheet	9
2.	Orthographic projections of machine parts	1 Sheet	9
3.	Isometric views from given orthographic view	2 Sheet	18



4.	Free hand sketches of threads rivets, nuts, Keys, cotters & washers	1 Sheet	9
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## Section II - Introduction To Information Technology Theory

S.No	Topics	Sub-topics	Details	Periods
1.	Introduction to AutoCAD	Necessity, Opening Auto CAD	Necessity Advantages Conventional methods of drafting, Auto CAD, Screen, Different Tool Bars, Command line, Setting Limits – Metric.	1
		Co-ordinate System	Absolute, Relative, Polar	1
		<b>Commands</b>	<b>Draw commands</b> : Line, P-Line, Circle, Polygon, Arc, Ellipse, Rectangle.	1
			<b>Modify Commands:</b> Erase, Copy, Move, Offset, Trim, Extent, Break, Fillet, Scale, Array, Mirror, Chamfer, Explode.	
		Line types and Dimensioning	Changing line type, Toolbar, linear, Angular	1
2.	Introduction To Computer Networking	Introduction	What is a network? Use of Networks.	1
		Types, Topologies	LAN, MAN, WAN etc. Star, Ring, Bus, Mesh etc.	1
		Components	Modem, Switch, Hub, Routers.	1
3	Internet	Introduction	What is Internet? How it Works? Domain, Address, Internet Service Provider, Browser	1
		Application, E- commerce	E-mail, Web Browsing, Searching, Web Applications like online banking, online reservation, online shopping & online exam. Concept of E-commerce, Advantages and Applications	1
4	HTML	Introduction	Language used in World Wide Web, concepts of Hyper Text Mark up & language, Advantage & Disadvantage	1



		Structure of HTML	Structure of HTML Documents, Tags, Attributes.	1
		Application	Creating Web Pages using HTML tags	1
5	Introduction to C++ Language	Introduction	Introduction to C++ language, Application & Features of C++.	1
		Tokens in C++, Data types	Keywords, Identifiers, Variables, Constants , Strings and Operators, Basic data types in C++	1
		Structure	A structure of C++ Programme	1
<b>Practicals</b>				
1.	Auto Cad	1) Drawing of simple object and like Rectangle, Circle etc. 2) Drawing of simple orthographic Views with Dimensions.		6
2	Networking and Internet	3) Internet Browsing (1-Practical) 4) Sending and Accessing e-mail message (1-Practical)		7
3.	HTML	5) Simple Programmes in HTML Language (2-Practicals)		16
4	C++	6) Simple Programmes in C++ Language (2-Practicals)		16

<b>Achievements</b>		
a) Each Student will draw an orthographic projection of simple solid by using AutoCAD.		
b) A batch of students will browse the internet and send and receive at least one e-mail message.		
<b>Important Note</b>		
4) Printed study material and Practical Assignment should be prepared by the teacher and made available to the students to save the teaching time.		
5) Teacher should prepare his own power point presentation on different topics and show it to students.		
6) Teaching should be done on-line with the help of computer and LCD		



**Elements of Electrical and Electronics Technology (V3)**  
**STD – X (Paper-II)**  
**Theory**

Sr. No.	Shop	Topics	Sub Topics	Periods
1.	Fitting	Filing process	Technique of filing, Flat filing, Angular filing, Straight filing, Cross filing, draw filing	2
		Drilling	Introduction to drilling, Parts of Drill- Shank, Tang, Body clearance, Margin (lead), Flute, Web, Lip clearance, Dead centre, Drill- Flat, Twist, Carbide tipped, Straight shank, Taper Shank Cutting angle of drill	2
		Threading	Internal threading, tap and tap wrench, Care can be taken while tapping	1
		Drilling machines	Introduction to hand operated, bench and pillar type electric drilling machines (With Block diagram) important part and their functions, types, Specifications, Operating principals care and maintenance.	3
		Heat treatment	Heat treatment and its important	2
2.	Welding	Welding equipments	Welding equipments i.e. oxygen and acetylene cylinders, Regulators, blow pipes, Their selection to use care and maintenance.	4
		Welding electrodes	Welding electrodes their types selection according to jobs to be performed, effect of moisture on electrodes	2
		Welding techniques	Welding techniques right hand, left hand welding, common welding defects and their causes, precaution to be taken to avoid welding defects. Common welding symbols used in drawing	4
3.	Plumbing	Cocks and valves	Types of cocks – pillar, concealed, stop, automatic, ball, multiuse, spring loaded etc. their uses.	4



			various types of valves like sluice, non-return, gate valve, air valve, foot valve, their uses, care and maintenance	
		Pumps	Pumps and their classification, centrifugal pump and hand pump, their principle of working, parts and its function in short. Domestic and irrigation pump in common use.	3
			Installation of domestic pump, pipe connection of pumps and fitting, priming used for centrifugal pump and hand pump trouble shooting.	3
4.	Basic Electricity	House wiring, M.C.B, Wiring Symbols, Measuring instruments	Different types of house wiring, M.C.B. and its important. Wiring symbols, Connections of electrical measuring instruments in circuits, i.e. ammeter, voltmeter, Energy-meter, Meager	2
		Contact Breaker	Earth Leakage contact Breaker and I.E. Rules.	2
		Wiring layout	Wiring layout for domestic purpose (Additional Knowledge of electrical power saving lamp, electronic chokes etc.)	2
		A.C. Fundamentals terms	A.C. Fundamentals different terms used in A.C. and their inter relation between current, voltage, power factor, General idea of Single phase and three phase	3
		Invertors	Introduction , working	1
5.	Electronics	Power Supply	Introduction to rectifiers, types, Regulated power supply, Solar cell	4
		Amplifiers	Amplifiers Principal of working, types and application	4
		Micro-processor	Introduction to Micro-processor	2
6.	Electrical machines and	A.C. Motors & Starter	Types of A.C. Motor-Single Phase, Three Phase induction motor, Types of Single phase motor and its application, Types of	3



	domestic Appliances		starter	
		Transformer	Working principle, parts and construction, types-Single phase, three phase core type shell type, step up and step down	3
		Domestic Appliances function and precaution	Study of electric Room heater, Geyser, storage water heater their parts, function and precautions	2
		Maintenance. Safety and precaution	Electrical domestic appliances such as ceiling fans, mixer-grinder and hair driers parts and function	2

### PRACTICALS

1.	Fitting	1) Marking out, with location of holes of different sizes on already filed piece drilling, tapping and counter sinking on a hole.	10
		2) Making a job of any Regular shape within an accuracy of 0.5 mm	10
		3) Simple male and female job.	10
2.	Welding	1) Inside corner joint in flat position	10
		2) Fillet lap joint in Horizontal position	10
		3) Butt Joint of M.S. plate	10
3.	Plumbing	1) Mounting a centrifugal pump with prime mover on test bed with all fitting running testing	10
		2) Piping and fitting of geyser, shower with hot and cold water services as per layout	10
		3) Dismantling of centrifugal pump, cleaning the parts and reassembling	10
4.	Basic Electricity	1) To draw wiring diagrams for connecting voltmeter, Ammeter and Energy meter, connect and study reading	8
		2) Different wiring exercises for connection and fixing	10





		electrical accessories (Minimum two exercise)	
		3) Connection to geyser or storage type water heater.	6
		4) Connection to domestic electrical water pump by using D.O.L. starter in the circuit.	6
5.	Electronics	1) Study of half wave, full wave rectifiers, Bridge rectifier	10
		2) Study of single stage amplifier	10
		3) Study of Transistor as switch	10
6.	Electrical machines and domestic Appliances	1) To check continuity of primary and secondary wiring with multi-meter and to check insulation of transformer with meager	10
		2) To disassemble mixer / fan motor and observe parts cleaning and greasing motor. Clean armature brushes etc. and reassemble	10
		3) To connect a single phase motor to supply through ammeter and measure its starting and running current.	10

#### Project Work – For Example.

1. A kitchen Rack
2. Shoe Stand
3. Agricultural instruments (Hand Operated)
4. Electronic Voltage stabilizer (Regulator)
5. Electronic Fence / Relay / Door Safety

#### NOTE

1. Project work should include estimating and costing. Imbibe product consciousness and quality consciousness in the students.

2. The project work given in syllabus is only for guideline candidate may choose any one project and prepare it. He / She has liberty to prepare any useful project other than the mentioned project. He / She may produce a collection of information regarding latest indigenous technology. He / She may write a visit report about any nearest industry and their product.
3. One project should be compulsory for each students / group of maximum ten students.





11.1

**SCHOOL EXAMINATION**  
**CERTIFICATE SUBJECT (COMPULSORY)**  
**(P1) HEALTH AND PHYSICAL EDUCATION**

**Std**  
**IX and X**

**Introduction**

The process of Physical Education requires the integration of psychomotor, cognitive and affective learning. As a part of this process, the physical education content area establishes the competencies and skills necessary for all students to be physically, mentally, socially and emotionally educated. Each individual possesses a Life Energy Curve, which cannot be rewritten but can be improved upon.

Unfortunately in today's age we have been successful in engineering activity out of modern life and we train children to be sedentary. Research strongly suggest that this life style would ultimately lead to the onset of hypokinetic diseases like premature death, blood pressure, diabetes, cardiac problems, etc. Stress is one other factor that is adversely affecting the lives of one and all. Hence intervention in the schooling age would be one of the keys to address this serious problem. There is a growing momentum for change, and the proposed syllabus of Health and Physical Education has adopted a totally new approach. We now seek to implement outcome reform. This challenge requires us to approach the subject with a whole new mind set. It focuses on encouraging the adoption of appropriate life ling exercise behaviour in order to develop and maintain sufficient health related physical fitness for adequate functional capacity and health enhancement.

**The syllabus has certain distinct characteristics**

1. It has been designed for the masses and not merely for selected few.
2. It is realistic, achievable, effective, accountable and objectively measurable.
3. In the secondary stage Health and Physical Education curriculum is based on the curriculum of the primary stage.
4. It takes care of the Rural and Urban school settings, the availability of infrastructure, the time span of a period and the teacher-student ratio.
5. It proposes continuous comprehensive evaluation which involves student participation.
6. Self learning has also been incorporated in the syllabus in terms of assignments, observation, project work etc.
7. A new concept of deriving a Physical Fitness Index for each school has been suggested. Motivation in terms of Awards would also be considered for the Best School.

Wide range of option has been suggested, so as to take care of diversity in the State. The focus being Fitness, Fun, Excitement and Skill, along with the development of a positive attitude towards lifelong exercise behaviour which would ultimately lead to Wellness and the Health of the Nation.



## OBJECTIVE

1. To promote physical fitness
  - 1.1 Health Related Physical Fitness.
  - 1.2 Motor Related Physical Fitness.
2. To promote Sports Skill acquisition
3. To promote lifelong Physical activity and Physical fitness
  - 3.1 Skill in life time recreation.
  - 3.2 Skill in life time fitness.
  - 3.3 Adoption and maintenance of a creative life style.
4. To promote cognitive learning
  - 4.1 Games and sports rules
  - 4.2 Scientific basis of movement and health
  - 4.3 Physical fitness concepts and procedures
  - 4.4 Drug/Dope abuse
5. To inculcate desire to compete
  - 5.1 With oneself
  - 5.2 With others
  - 5.3 For Excellence
6. To promote Social development
  - 6.1 Self concept
  - 6.2 Interpersonal skills

## Learning Outcomes

The syllabus in Health and Physical Education at this stage aims at realizing the

### Health and Physical Education (A) Practical 80% (B) Theory 20%

#### Part A - This part comprises of the following

No.	Items	Standard - IX	Standard - X
1	Physical fitness	20%	20%
2	Athletics	20%	20%
3	Sports and games	45%	45%
4	Yogic exercises	10%	10%
5	Body Management Skills	5%	5%

following learning outcomes.

A student –

1. Achieves and maintains a health-enhancing level of physical fitness.
2. Demonstrates competency in many movement forms and proficiency in few movement forms.
3. Applies movement concepts and principles to the learning and development of motor skills.
4. Exhibits a physically active lifestyle.
5. Understands that physical activity provides opportunities for enjoyment, challenge, self expression and social interaction.
6. Demonstrates responsible personal and social behavior in physical activity settings.
7. Demonstrates understanding and respect for differences among people in physical activity settings

### Health and Physical Education for IX and X

The syllabus of Health and Physical Education comprises of two parts.

1) Theory and 2) Practicals.

The weightage given to these two parts and their sub units including evaluation are as follows.

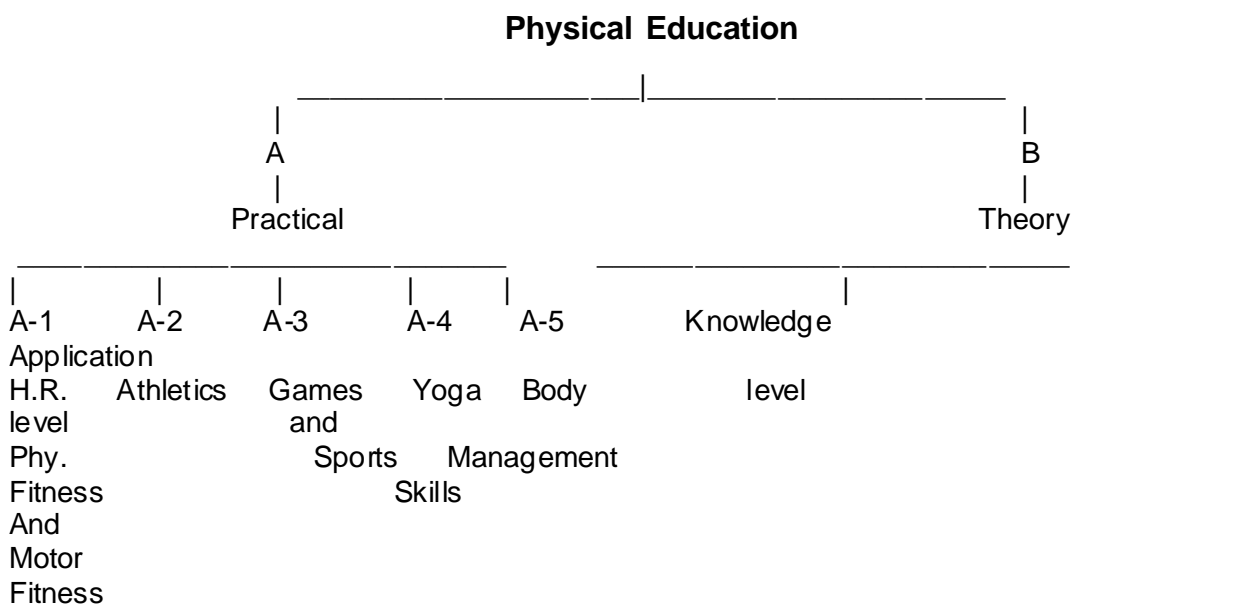


## Std. IX and X

### Syllabus

The syllabus for the IX and X standards consists of two parts A and B and its subparts.

They can be schematically represented as follows.



### Practicals Std. IX and X

#### Part – A

This part consists of five sub parts

- A-1 Health Related Physical Fitness and Motor Fitness
- A-2 Athletics
- A-3 Games and Sports
- A-4 Yoga
- A-5 Body Management Skills

#### **A-Health Related Physical Fitness and Motor Fitness :**

This is the most important part of the curriculum, which is to be objectively evaluated. Activities have been suggested

for proficiency in these areas. These activities should be gradually increased in terms of **Frequency, Intensity, Time and Type of Exercise**. (FITT) principle.

Development of Health Related Physical Fitness and Motor Fitness components is compulsory. Schools should adopt innovative and viable methods to improve these components.

#### **Components of Health Related Physical Fitness (HRPF)**

- A.1.1 Cardio Vascular Fitness
- A.1.2 Muscular Strength
- A.1.3 Muscular Endurance
- A.1.4 Flexibility
- A.1.5 Body Composition



## Activities suggested for developing Health Related Physical Fitness

Points to be considered

### A.1.1 Cardio Vascular Fitness

- i) Target Heart rate
- ii) Warming up and cooling down
- iii) Exercises-
  - 1) Stretches
  - 2) Upper body development
  - Lower body development
  - Mid section development
- iv) **Activities** : Routines
  - a) Exercises to music
  - b) Continuous movement activity

### Compulsory -

Aerobics, Rope Jumping

### Minimum One -

Jogging, Walking, Interval Training, Circuit training, Astronaut Drills, Staircase running, Hill running, Running on the spot.

### A.1.2 Muscular Strength-compulsory

- i) Dandas
- ii) Pushups Boys/Modified Pushups-girls
- iii) Pullups/Modified Pullups-girls
- iv) Squats and Wide squats
- v) Lunges
- vi) Rope climbing
- vii) Flexed Arm Hang/Hanging
- viii) Sitting Ball Throw (Basket Ball)

### A.1.3 Muscular Endurance-compulsory

- i) Sit ups – Bentknee
- Curl ups
- Reverse curls
- Obliques

- ii) Pullups-Modified Pullups

- iii) Knee sit wall

### A.1.4 Flexibility-compulsory

- i) Suryanamaskar
- ii) Stretching Asanas with, without aid

### A.1.5 Body Composition - Compulsory Compulsory -

(i) Waist to Hip Ratio (W:H) (i) Body Mass Index (B.M.I.)

Desirable - Measurement of Body Fat with skinfold calipers.

Counselling with respect to Nutrition and Exercise.

### A.1.6 Components of Motor fitness (MF)

- i) Speed
- ii) Agility
- iii) Power
- iv) Co-ordination

#### A.1.6.1 Suggested Activities for developing Motor Fitness (M.F.)

- i) Speed-50m.run, sprints, games, Frisbee games
- ii) Agility - (6x10)Shuttle run, games, Frisbee games
- iii) Power- Plyometrics, games, Frisbee games
- iv) Co-ordination-Skipping, Wall volley, Ball Drills, Frisbee games

#### A.1.6.2 Obstacle Course – Compulsory

The obstacle course comprises of Stretching, Vaulting, Agility, runs, Climbing, Hanging, Chinning, Crawling, Balancing etc. to develop Motor fitness.

Variations include Run for time Repetitions.



## A.2 Athletics –

It is a compulsory activity and has an essential and a desirable component.

The performance level has to improve from IXth to Xth. Intramurals should be conducted on Mass level.

Items	Essential	Desirable
Runs	50 m., 100m.	200 m., 400 m.
Relays	4 x 100	4 x 400 m.
Jumps	Long Jump High Jump	Triple Jump --
Throws	Shot Put	Discus/Javelin

## A.3 Sports and Games –

The Sports and Games have been divided into three groups ('A', 'B' and 'C')

The school must make arrangements for **at least one** from each group.

Regular Intramurals must be conducted for the same.

A	B	C
Kabaddi	Volley ball	Wrestling
Kho-Kho	Hand ball	Judo
Foot Ball	Basket Bal	Karate
Cricket	Hockey Soft ball	Taekwondo

**Instead of above games, you have to select any one game which is Popular & Favorite in school area.**

The games should be taught according to the guidelines given below –

- 1) Warming up-Single, Partner-free hand exercises
- 2) Conditioning

- 3) Basic Skills- offensive, defensive Drills for the skills
- 4) Tactics, Strategies & Techniques-Drills
- 5) Participation in game
- 6) Officiating
- 7) Skill related test

## A-4 Yogic Exercises

Yogasanas prescribed standard wise are as given below -

- 1) Sarvangasana
- 1) Ardha Matsyendrasana
- 2) Tolang ggulasan
- 2) Paschimottanasana
- 3) Hansasana
- 3) Bhadrasana
- 4) Badh Padmasana
- 4) Ushtrasana
- 5) Halasana
- 6) Akarana Dhanurasana
- 7) Vipareet Karni
- 8) Shavasana

Pranayam –Anulom- Vilom

Pranayam - Ujjai

Yogasana program should start with Suryanamaskars and close with Shavasana & Omkar.

## A-5 Body Management-Skills

- 1) Posture – Correct form of the following Standing Sitting Walking Lifting
- 2) Anthropometric measurements- Height, Weight, Body girths-shoulder, chest, arms, wrist, waist, thigh, calf.



### **Stds.IX and X**

#### **Theory**

#### **Part-B**

This part comprises of theory which is related to health and physical education. This would help develop an attitude and awareness towards the various issues related to physical education and sports and to work towards understanding lifetime wellness.

Nonconventional methods of teaching which encourage self learning should be adopted, student participation is central to the learning outcome of this part.

Project, assignments, Debates, etc. are some suggested methods. The teacher should use innovative methods and approaches and ensure maximum student participation.

#### **Std.IX**

- 1) Meaning and importance of physical fitness and wellness
- 2) Related sports terminologies (ten)

- 3) Rules of the games (Games not selected in part A-2)
- 4) Basic first-aid techniques (two)
- 5) Records
- 6) Ethics and values related to sports
- 7) Personal course in fitness (laboratory methods) level-1-calculation of personal fitness index.

#### **Std.X**

- 1) Components of physical fitness and wellness
- 2) Factors affecting physical fitness and wellness
- 3) Benefits of exercise
- 4) Obesity
- 5) Nutrition
- 6) Sports awards
- 7) Personal course in fitness (lab methods) level-2

Calculation of fitness index and comparison of fitness index between two people from different Strata.





**SCHOOL EXAMINATION**  
**CERTIFICATE SUBJECT (Any One)**  
**Scouting & Guiding**

**Std : IX**

**Theory**

- 1) Scouts – Guides prayer song
- 2) Scouts / Guides Flag-Song - Jhanda geet.
- 3) Prayer . Camp fire song
- 4) General knowledge or History of Scout & Guide movement
- 5) Scout & Guides Law & Promise.
- 6) Know the composition & Significance of the national flag, world Scout & Guide flag, Bharat Scout & Guide flag diagram & imports.
- 7) Learn your patrol, its flag & yell, song & patrol corner know the importance.
- 8) First-Aid box & its contents, treatment for cuts, scratches, scalds, choking fractures & collar Bone Arm, leg.
- 9) Compass – uses, finding north, setting north, knowledge of paces & bearing.
- 10) Knowledge organization of Bharat Scout & Guide movement.
- 11) Learn six rope knot's & its uses.
- 12) Whipping the ends of a rope.
- 13) Knowledge about Uniform & Patrol System.
- 14) Wood craft signs & Wide Game.
- 15) Preparation of Patrol Hike/Participation in two troop/Company meeting & Overnight Camp.
- 16) Knowledge of Social Service.

**Practical**

- 1) Know knowledge about the Historical, Physical, Economics, background of your village, Block or Taluka.
- 2) Community Development project, illiteracy awareness of Health Education.
- 3) To teach good Health habit to the child.
- 4) Nature study project.
- 5) Services of Panchayat / municipality.
- 6) Good behavior.
- 7) Serve in mela or health camp.
- 8) Survey of your locality about water sewage and pollution problems.
- 9) Visit to Historical place.
- 10) To make project, estimate of cooking.
- 11) Nature Lover – snake, earthworm.
- 12) Visit to voluntary Institution or social welfare Institutions and submit a report.
- 13) Ecologists, soil Conservation, solar energy awareness, water literacy, cancer awareness, water management, computer awareness.
- 14) Traffic – Vehicle problems, electrical utilization its disadvantages, Disadvantage of mobile.

**Std X**

**Theory**

- 1) To tie and show the uses of Hitches Lashings.
- 2) Estimation Distance and Time.
- 3) First-aid – wound dressing , stretcher





making, carrying patient

- 4) First Aid – shock fainting.
- 5) Pioneering – use of Axe & knife, bill hook, Hand saw, small pickax
- 6) Map sketches Identification mark, reading drawing & Tourist map.
- 7) How to pitch tent and improvised shelter.
- 8) Handicrafts and making gadgets demonstration.
- 9) Fire Demonstration of wood fire to stop gas leakage, safety precautions with regard to fair.
- 10) Knowledge of All faith prayer & good behaviour.
- 11) Knowledge of Proficiency Badges & night game.
- 12) Knowledge of community development.
- 13) Knowledge of Thinking day & Foundation day.
- 14) Theory – Signalling – more code.
- 15) Knowledge about Social Service camp.
- 16) Preparation of Overnight Hike & night game.
- 17) Knowledge of Proficiency Badges Group A & B.

### Practical

- 1) All faith prayer.
- 2) Lashing on stickers.
- 3) Demonstrate the practical use of compass and know the sixteen points.
- 4) Good turn.
- 5) One and proficiency Badge : Cook,

debater, friend to animals, Gardner, Handyman.

- 6) Fire – Lax and Light wood fire in open with not, more than 2 match sticks or clean and light stove, safety precautions with regard, to fire. Bucket – chain method. Tackling a dry grass Fire.
- 7) Cooking – In open two simple dishes and tea.
- 8) Patrol games.
- 9) Whipping he ends of the rope.
- 10) Knew knots and uses.
- 11) Estimation – Estimate any given two heights depths, not more than 30 meters. Two weights not more than 2 Kg and two different types of things in numbers.
- 12) First-Aid – Treatment for shock, fainting chocking. Deal with simple fracture of arm, collar, borne and jaw fracture first aid for drowned person and electric shock. Demonstrate mouth to mouth resuscitation.
- 13) How to pitch a tent improvised shelters.
- 14) A Trestle and Rope ladder with the help of another scout.
- 15) Log Book – Service – Our heritage & culture development in school. Social services camp service in fair / mela. Solution to any problem in the locality. National integration. Motivation programme for family welfare. Gobi project – Leprosy control programme. Ex. Aids-sq flu, Dengu, & Chiken gunia etc.





# Maharashtra Cadet Corps (MCC)

**For Std.IX only**

## Introduction

The overall aim of Maharashtra Cadet Corps Syllabus is to ingrain in students minds the utmost necessity of being worthy Citizens, with healthy minds and bodies with the awareness of their minimum essential obligations towards society. To enable them to assist the authorities and citizens at the time of need. To create Social awareness and brother

## OBJECTIVE

1. To inculcate the sense of discipline, bearings and appearance.
2. To develop the confidence and ability to protect oneself.
3. To develop spirit of Co-operation, Comradeship, brotherhood and dignity of labour.
4. To acquire knowledge of elementary aspect of good health.
5. To acquire knowledge of first aid, Hygiene, and sanitation.
6. To create awareness of good and moral character in the young students.
7. To develop the sense of national integration
8. To inculcate the cause of accident, good traffic and civil sense.
9. To familiarise students with the origins of social tensions.
10. To acquaint with primary information of Rifle.

## Syllabus

1. Drill
  2. Self Defence & Unarmed Combat
  3. Character Building & National Integration
  4. Traffic rules & Internal Security
  5. First-Aid Hygiene & Sanitation
  6. Social Work
  7. Camps
1. Drill
    - 1.1 Turning while marching and wheeling.
    - 1.2 Saluting while marching (Left, Right)
    - 1.3 March past in columns and files
    - 1.4 Ceremonial parade
    - 1.5 Word of command (Practices)
  2. Self Defence and Unarmed Combat
    - 2.1 Vulnerable parts of the body
    - 2.2 Practice of unarmed combat
    - 2.3 Defensive sports (a) tug of war (b) Push away, (c) prison break, (d) finger bent
  3. **Character Building and National Integration**
    - 3.1 Leadership qualities and development
    - 3.2 Brief study of prominent national and military leaders of Maharashtra (a) King Shivaji, (b) Rani Laxmibai, (c) Subhash Chandra Bose, (d) Gen.Arunkumar Vaidya



3.3 Religious, customs, traditions and culture of Maharashtra

3.4 Patriotic marching Song/songs – (At least one)

#### **4. Traffic rules and Internal Security**

4.1 Necessity for traffic rules, prevention of accidents and basic traffic right.

4.2 Basic idea of internal security and health. the district authorities in an emergency like earthquakes, floods and civil security.

#### **5. First-Aid Hygiene and Sanitation**

5.1 Fractures and Hemorrhage

5.2 First aid in animal bites from Snakes and Dogs.

5.3 First-aid in burns, shocks and drownings.

5.4 Medical aid in emergency cases.

5.5 Practice on various types of bandages.

5.6 Evacuations of casualties

5.7 Water borne diseases and preventive measures.

5.8 Hints on domestic and community sanitation.

#### **6. Social Work**

6.1 Improvement of road/drainage and cleaning of surrounding areas.

6.2 Pulse polio and Aids awareness: Eradication of superstition & addictions.

6.3 Tree plantation

#### **7. Camps**

Visit to a place of interest of educational importance, Trekking, Bicycle expedition. Examination will be conducted at the end of year for 100 marks.

A) Practice – 50 marks

B) Theory – 50 marks

**Note** – A Total of four periods split into two sessions of 60 minutes each (30 minutes x 2 periods + 60) will be organised one after each term.

The scheme of Training laid down by the Govt. of India for the Junior Division of N.C.C. will be followed.

OR

#### **Sea Cadet Corps**

**Note** – The students from Mumbai City Completing the Course in Sea Cadet Corps satisfactory would be exempted from N.C.C. (Navy).





## National Cadet Corps (NCC)

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### Std : IX and X

The scheme of Training laid down by the Govt. of India for the Junior Division of N.C.C. will be followed.

OR

### Sea Cadet Corps

**Note** – The students from Mumbai City Completing the Course in Sea Cadet Corps satisfactory would be exempted from N.C.C. (Navy).





12.4

## Defence Studies

**Std : IX and X**

### Introduction

The security of a nation depends upon its defence forces. Defence studies aim at creating a body of knowledge which is related to the internal and external organisational set up of the strategic components of the Defence forces. The course outline is designed keeping in mind the need to develop interest in the defence organisation of our motherland.

### OBJECTIVE

1. To acquaint students progressively with aim of national defence and the role of India's Defence Forces.
2. To familiarise them with the organisation, weapons, and equipment of the Army, the Navy and the Air Force under each of them.
3. To introduce them the role of organisation of N.C.C. the territorial Army and the Civil Defence.
4. To create an urge to emulate the brave deeds of India soldiers, sailors and airmen in the defence of the country.
5. To inculcate the qualities of discipline, leadership, devotion to duty and loyalty to the Country. Through a study of India's Defence set-up and to create interest in them to take up Defence Studies as a subject.
6. to prepare the students physically and

mentally to accept the challenges.

### Theory IX

1. The National Pledge and Soldier's Oath of Allegiance :
  - a) National Integrity- Meaning and Importance. The diversity of India's religious and social life.  
Territorial Integrity –Meaning and Importance-
  - b) National Pledge as defined by the National Integration Council. Co-relation between National Integrity and National Defence-
  - c) Soldiers Oath of Allegiance and it's for reaching implications.
2. **The Role of the Armed Forces (Army, Navy, Airforce) during Peace time and War time-**
  - a) Meaning of National defence and National Security
  - b) A brief introduction of Army, Navy and Airforce (Indian Armed Force) and meaning of peacetime and wartime.
  - c) Peace time role of Army, Navy and Airforce.
  - d) Wartime role of Army, Navy and Airforce.
3. **Second line of Defence –** Introduction, Importance and their role in National Security.
  - a. Border Security force (B.S.F.)



- b. Indo-Tibetan Border Police.
- c. Assam Rifles.
- d. Central Reserve Police.
- e. State Reserve Police.
- f. National Cadate Corp-
  - 1) Establishment/Formation
  - 2) Commader/Commandent, Rank/ Designation
  - 3) Location/Head Quarter.
  - 4) Importance and Role in National defence.

#### 4. Importance and Role of Civil defence organization.

- a) Civil defence – Meaning, Importance and Origine of civil defence.
- b) Role of Civil defence organization in peacetime and in the time of disaster.

#### 5. Defence and Environment –

- a) Environment- Meaning, Scope and Security measures of Environment.
- b) Co-relation between Defence and Environment.

#### 6. Importance of Discipline and Training in Military leadership.

- a) Discipline and training – Meaning, need and importance
- b) Valour stories of same – emient Indian Military leaders-
  - 1. Chhatrapati Shivaji Maharaj
  - 2) Maharana Pratap Singh.
  - 3) Thorale Bajirao Peshawa.
  - 4) Field Marshal Manek Shaw.

#### 7. Gallantry Awards—Certain hearoic Actions.

- a) Gallantry Awards – meaning and necessity.
- b) Certain Heroic Action with Gallantry Awards-
  - 1) Paramvir Chakra—
    - a) Lt. Col. D.B. Tarapore,(1965), b) Maj. Hoshiyar Singh and 2<sup>nd</sup> Lt. Arun Khetrapal (1971),
  - 2) Mahavir Chakra – Lt. Commander MahendraNath Mulla.(1971)

#### Std X

- 1) The organisation of Indian Army Head Quarters.

#### Introduction

Head Quarters and Role : Principal Staff officers and their functions.

#### 2) Organisation of Army Commands

Command Head Quarters, Officers, Ranks and Area responsibility of Static & field formation.

- 1) Static formation under Peace Establishment.
- 2) Field formation under war establishment.
- 3) Organisation of Basic Units of Army :
  - 1) Infantry Battalion – Organisation, Weapons and Role
  - 2) Artillery Regiment – Organisation, Total guns and Role of Artillery Regiment.
  - 3) Armoured Regiment – Organisation Weapons (Total tanks) and Role of Armoured Regiment.



- 4) The Organisation of Indian Naval H.Q.-  
Structure of Naval H.Qs., Naval  
Commands and Officer's Ranks &  
function
  - 5) The Organisation of Indian Air force  
H.Qs., Organisation structure of Air  
force H.Qs., and Air Commands
  - 6) Recruitment of Officers and other ranks  
in the Armed forces.
  - 1) Officers -Eligibility and Training  
Institution.
  - 2) Other Ranks (soldiers)- Eligibility,  
training Institutions .
  - 7) Civil Defence Organisation and  
Services.
    - 1) Central Level
    - 2) State Level
    - 3) District Level
    - 4) Metro cities Services.
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**Std IX and X****Introduction**

The overall aim of syllabus of civil defence and Road safety is to create awareness in the young minds and make them worthy citizens with healthy minds and bodies. To make students aware of their minimum essential obligation towards society. The study of civil defence and Road safety would enable them to assist the civilian authority at the time emergency. The creation of will power, character, sportsman spirit, social services and brotherhood and through civil defence Road Safety training make students worthy citizens of the country.

**OBJECTIVE**

1. Acquire knowledge of the concept of Civil Defence including rules for road safety.
2. Understand the importance of civil defence in emergencies and in peace time.
3. Develop ability to apply & adopt basic principle of safety and protection in civil defence.
4. Appreciate the rule of civil defence in national integration security and defence.
5. Create awareness about the use of civil defence in carious fields.
6. Develop educability for further training in Civil defence and develop skills.
7. Inculcate the spirit of worldwide humanism.

**Theory –**

1. Civil Defence – Definition, need, scope and importance.
2. General outline of Civil Defence, - Services; Aims and Objectives, Organisation & functions including Headquarters. (Fire Brigades and other essential service)
3. Road Traffic Signs
4. Driver's Traffic Signals
5. Different type of vehicles, their registration, number series in different states.
6. Problems created by man-made and natural hazards.

**Practical**

- (A) Road Safety Petrol
  - (i) Operational duties on the Road.
  - (ii) Code of conduct & discipline
- (B) Traffic Control
  - (i) Manual signals, Dual control & T Junction
  - (ii) Road traffic signs. E.g. – foot path, Road curb, traffic lights, zebra & pelican crossing, islands, bollard, refuge, divider, over bridge, OR foot bridge, Subway, moving & stationary vehicles Powered two wheeler & pedal cycles, large & small vehicles, fast & slow moving vehicles.
  - (iii) the correct method of crossing ‘ the ‘Stop look listen’ method of curb, drill,





the method of crossing at controlled & uncontrolled Pedestrian crossing & junction & at traffic lights.

- (iv) Road surface markings.
- (v) Different type of vehicles, their registration Number & series in different states.

### (Std.X)

#### Theory

1. Civil Defence Organisation – Central, State, Local
2. Outline of concept of 'Hazards' & their remedies
  - 2.1 Economic, cultural & social
  - 2.2 Revolution, internal disturbances
  - 2.3 Natural hazards, floods, typhoon, storms, fires & earthquakes
  - 2.4 Accidents including road accidents, industrial Hazard
3. Basic Principles of First-Aid Injuries caused in any disaster, general description & first-aid to be given.
4. Bandage Types – Triangular Bandages, Jaw, Shoulder, hip & below
5. Shock – Definition, signs symptoms and treatment

6. Breathlessness (suffocation) causes and treatment.
7. Measures taken by organisation to prevent natural & man-made disaster. Measures taken during man-made & natural disasters.

#### Practical

- A) Operation at Road Safety Patrol
  - i) Organisation & detailing a unit
  - ii) Operation at traffic signals
  - iii) Operations at school bus safety patrol
  - iv) Boarding & alighting from buses safely & correctly
  - v) Show films on road safety
- B) First Aid
  - i) Bandage types
  - ii) Triangular Bandages for Jaw, shoulder, hip & below
  - iii) Artificial Respiration methods
  - iv) Transportation of casualty – stretcher method improvised stretcher.
  - v) Breathless (Suffocation) causes treatment.





12.6

## SOCIAL SERVICE

### Std : IX

### STANDARD IX

#### Introduction

The subject 'Social Service' makes students aware of social change. It creates social awareness and teaches the students to behave in the right manner and to take appropriate action. This subject is related to daily life in the sense of creating civic affairs interest, self confidence and the ability to identify social problems. This also promotes affinity for community life among the students. This subject provides proper opportunity to students for rendering selfless social services. Social service subject is a valuable tool for developing a healthy social environment.

#### Objectives

To enable students to –

- 1) identify social problems and find solutions
- 2) develop socially balanced personalities useful for society
- 3) inculcate social awareness among the students.
- 4) motivate students for social activity.
- 5) Make students communicative and co-operate in doing social work.
- 6) Develop skills for facing various challenges in social life.
- 7) Inculcate self-respect and self esteem.
- 8) To make students participate in social activity voluntarily.

#### 1. Dignity of Labour

- 1.1 Creating awareness among students to be sensitive about cleanliness of their school and village or town or city.
- 1.2 Being students participating in maintaining cleanliness in their locality and making them to participate in Sant Gadgebaba Gramswachata movement.
- 1.3 Preparing students for plantation and maintenance of trees in the school and locality.

#### 2. Educational Field

- 2.1 Participation in literacy programme.
- 2.2 Loud Reading of newspapers to blind and senior citizens.
- 2.3 Participation in group study
- 2.4 Organize programmes such as recitation, storytelling, singing etc. for poor students.
- 2.5 Spreading information about respected achievers in and around new locality.
- 2.6 Eradication of blind faith and action.

#### 3. Health Education :

- 1.1 Creating social awareness about personal hygiene.
- 1.2 Volunteering and cooperating for Health Camps.
- 1.3 Be trained in first aid and help society.
- 1.4 Making use of toilets, cleanliness and maintenance.
- 1.5 Making use of “ Sosha khadda “ and its various methods and construction.



- 1.6 Participation in vaccination and its awareness programme.

### STANDARD X

#### Introduction

The subject 'Social Service' makes the students aware of our social conditions. It helps students to know the needs and requirements of society. This subject makes the students to help the needy people. It helps to develop civic interest and self confidence among students. With the help of this subject, students learn to identify social problems and to think over the solutions. Through this subject, students get an opportunity to render selfless social services, with the help of which healthy social environment can be developed.

#### Objectives

To enable the students to -

- i) identify social problems and find out their solutions.
- ii) become aware of social state, social needs and social requirements.
- iii) participate in various social activities.
- iv) be communicative and co-operative in doing social work.
- v) develop various social skills
- vi) inculcate in themselves sense of self respect and dignity of labour
- vii) express gratitude towards society.

### Std IX Syllabus

#### 1. Social service through dignity of labour (Physical work)

- 1.1 Keeping the school and surroundings clean and pleasant.
- 1.2 Participation in various cleanliness programmes such as Sant Gadge Baba Gram Swachata Abhiyan.

- 1.3 Participation in activities related to plantation and maintenance of trees.

- 1.4 Promoting gardening work in school and public places.

- 1.5 Helping the poor and needy people by way of donating them - food, clothes, medicines etc.

#### 2. Social Service through General Educational Programme

- 2.1 Participation in literacy programme

- 2.2 Reading newspapers for blind, old and sick people.

- 2.3 Helping the poor and less educated small children to learn and study.

- 2.4 Making use of techniques such as story telling, poetry recitation, singing etc. to help the small and poor children learn and study

- 2.5 Participation in the programme of eradication of superstitions

#### 3. Social Service through Health Education

- 3.1 Creating social awareness on health and hygiene.

- 3.2 Co-operating and volunteering in health camps

- 3.3 Getting training in 'First-Aid' and its application

- 3.4 Participation in immunisation programme

- 3.5 Making use of soak - pits or toilets or water closets and keeping them clean.

### Std. X Syllabus

#### 1. Social service through dignity of labour (Physical work)

- 1.1 Keeping the school and surroundings clean and pleasurable



1.2 Participation in various cleanliness programmes such as Sant Gadgebaba Gram Swatchata Abhiyan.

1.3 Participation in activities related to plantation and maintenance of trees.

1.4 Promoting gardening work in school and public places.

1.5 Helping the poor and needy people by way of donating them - food, clothes, medicines etc.

## **2. Social Service through the use of entertaining programmes**

2.1 Organising sport events and sport competitions.

2.2 Organising health awareness programs for prevention of various diseases and making use of techniques such as story telling, street play, singing, keertan, rally etc.

## **1. Dignity of labour**

1.1 To create environmental awareness among students to be sensitive about their school and village /town /city .

1.2 To be active and participate to maintain cleanliness in their locality. To participate into Sant Gadgebaba Gramswachata movement.

1.3 Plantation and maintenance of trees in

the school and locality.

## **2. Entertainment for Awareness Programme**

2.1 Importance of Sport Events at local and district level.

2.2 Awareness camps in SARS, HIV AIDS, Adolescence, Family welfare to be encouraged. Example—street plays, storytelling, songs and family visits

2.3 Programmes on Social integration, Communal harmony and world peace.

2.4 Observation of sky, stars and birds.

2.5 Entertainment programmes towards addressing social issues.

## **3. Participatory Service**

3.1 Motivate to help family members

3.2 To help the ill, disabled and senior citizens.

3.3 Understand and offer help to friends, colleagues and others.

3.4 Develop compassionate attitude towards deprived and neglected section of society.





**12.7**

## **Vocational Guidance**

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The Syllabus for this course is as per B 9.6 Vocational Guidance (R4)

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