



# TEXTILES

## STANDARD XII



The Coordination Committee formed by GR No. Abhyas - 2116/(Pra.Kra.43/16) SD - 4  
Dated 25.4.2016 has given approval to prescribe this textbook in its meeting held on  
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# TEXTILES

## STANDARD XII



2020

**Maharashtra State Bureau of Textbook Production and  
Curriculum Research, Pune.**



S3N8N6

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## **The Constitution of India**

### **Preamble**

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens:

JUSTICE, social, economic and political;  
LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

## NATIONAL ANTHEM

Jana-gana-mana-adhināyaka jaya hē  
Bhārata-bhāgya-vidhātā,

Panjāba-Sindhu-Gujarāta-Marāthā  
Drāvida-Utkala-Banga

Vindhya-Himāchala-Yamunā-Gangā  
uchchala-jaladhi-taranga

Tava subha nāmē jāgē, tava subha āsisa māgē,  
gāhē tava jaya-gāthā,

Jana-gana-mangala-dāyaka jaya hē  
Bhārata-bhāgya-vidhātā,

Jaya hē, Jaya hē, Jaya hē,  
Jaya jaya jaya, jaya hē.

## PLEDGE

India is my country. All Indians  
are my brothers and sisters.

I love my country, and I am proud  
of its rich and varied heritage. I shall  
always strive to be worthy of it.

I shall give my parents, teachers  
and all elders respect, and treat  
everyone with courtesy.

To my country and my people,  
I pledge my devotion. In their  
well-being and prosperity alone lies  
my happiness.

## INTRODUCTION

Dear Students,

It gives me immense pleasure to render you the copy of Textiles Text Book for XIIth standard in an interesting format. The syllabus is upgraded with inclusion of uncommon man-made fibres and their ever increasing use in our daily life, chapters regarding Dyeing & Printing and Fashion designing are also included to broaden the base of textiles for students.

The Textbook is designed for students who wish to gain a basic knowledge about various aspects of textiles, their previous glorious history and current trends prevailing. The emphasis has been on providing you a glimpse of the different fields related to textiles for you to pursue the study further or to make a career out of it.

The Textbook is in continuation with the one for XIth standard and takes on from where the previous book left. It includes protein fibres, man-made fibres and their innovative uses; various types of fabric constructions and finishes applied to them and their care in terms of laundry & dry cleaning. A whole chapter has been devoted to various types of dyes & prints and the traditional dyeing & printing still popular in India & abroad. A chapter on Fashion Designing has been included with an eye on introducing you to the global world of Fashion and the various job opportunities available there.

The practical part included in the syllabus is in accordance with the theory chapters. It aims at providing the students the applied knowledge about the various aspects of textiles given in the theory chapters. Fibre and weave identification will supplement the knowledge they gain through the chapters regarding various fibres and fabric construction. Body measurements, drafting & pattern making, variation in necks, sleeves etc. and colour schemes are included to initiate the students into the world of Fashion Designing. Tie-n-dye and printing of samples will make them aware of the art & science of dyeing & printing.

The writing committee, artists and other technical persons have been working as a team to provide you a book which is rich in illustrations, tables, charts, photographs, quiz & riddles, innovative exercise, historical facts and interesting anecdotes to keep you engrossed throughout. This book also has a QR code which will supplement additional knowledge and practice tests to the students.

The book has glossary, bibliography and websites provided at the end for authenticity as well as for you to get more information about the subject if desired.

I would like to thank the team of writers, expert reviewers, artists, technical persons and Maharashtra State Bureau of Textbook Production & Curriculum Research for the timely production of the Textbook in an excellent form.

We all hope that this book will enable you to gain knowledge along with fun and will help in developing love and respect for the subject. We wish you all the best for your future educational and professional career.



**(Vivek Gosavi)**

Director

Pune

Date : 21 February 2020

Bharatiya Saur : 2 Phalgun 1941

Maharashtra State Bureau of Textbook  
Production and Curriculum Research Pune

## FOR THE TEACHERS

Dear Teachers,

It gives us immense pleasure to hand over this new textbook on Textiles for the XIIth standard to you all.

This book is in continuation with the textbook for XIth standard. The previous book dealt with introduction to the world of textiles, fibres – their classification and properties, natural cellulosic fibres, yarns etc. This book includes natural protein fibres – their types, manufacturing process, properties and uses, man-made fibres – their uses and the latest trends prevailing, various fabric construction methods and a chapter on finishes. A chapter regarding laundry and dry cleaning gives a basic knowledge of the kind of reagents used for these processes and their significance. Two new chapters have been added – one on Dyeing & Printing and the other on Fashion Designing. The objective behind these was that the students learn to appreciate the art and aesthetics of dyeing, printing and fashion as well as to make them aware of the technical knowledge required for these and the various opportunities for further studies or jobs that these two fields offer.

The practical part includes basic knowledge of body measurements, drafting & pattern making. It also includes weave making and weave identification. Fibre identification in the form of microscopic and burning tests is also there. Making samples of tie-n-dye and different forms of printing is included to make students aware of the art & science of dyeing & printing. Practical about various colour schemes, variations in necks, sleeves, skirts etc. will give students an idea about the type of work Fashion designers do.

The book has been written in a very simple language in a communicative style. Special efforts have been made to make the book student friendly by incorporating coloured photographs, illustrations, charts, tables, diagrams and various boxes providing historical or other interesting facts as well as challenging the students to think and correlate what they have learnt. There are lots of activities and innovative exercises for the students. The emphasis throughout has been on making the concepts clear to the students.

The last chapter on Fashion Designing has a number of technical terms in French language. A student desiring to pursue a career in Fashion Designing must know the basic terminology prevailing in the field and so they have been mentioned as such. However special efforts have been made to provide the correct pronunciations of them as well as their meanings in as simple a language as possible.

The QR code can be helpful to students and teachers alike to get further information, summary, videos, additional photos, additional exercises and different types of questions. This will surely help us to incorporate technology in the field of teaching-learning.

The Board of studies, authors, reviewers, artists, technical persons and office staff have put in a lot of effort to make the book aesthetically appealing, technically correct and academically interesting. They also need to be applauded to get it ready in time.

Hope you all will enjoy and appreciate this book and use it for effective teaching – learning from the current academic year.

## STUDENT'S LEARNING OUTCOME

No.	Unit	Learning outcome
1	Wool	<ul style="list-style-type: none"> <li>Explains historical information of the wool fibers, and countries producing wool fiber.</li> <li>Understands the manufacturing process of wool fiber.</li> <li>Studies the properties of wool fiber.</li> <li>Understands the uses of wool fiber and it's applicability in day to day life.</li> </ul>
2	Silk	<ul style="list-style-type: none"> <li>Explains historical information &amp; importance of silk since ancient times.</li> <li>Explains countries producing silk fiber.</li> <li>Understands the manufacturing process of silk fiber.</li> <li>Studies the properties of silk fiber.</li> <li>Understands the use and types of silk fiber and it's applicability in day to day life.</li> </ul>
3	Speciality fibers & Man made mineral fibers	<ul style="list-style-type: none"> <li>Get insight into the variety of speciality fibers available to us from various animal sources.</li> <li>Understands the scope, uses, properties of the new speciality fibers.</li> <li>Understands the special characteristics of speciality fibers &amp; how it has enhanced it's sale power.</li> <li>Obtain information regarding raw materials, properties &amp; uses of man made mineral &amp; metallic fibers.</li> </ul>
4	Viscose Rayon	<ul style="list-style-type: none"> <li>Throws light on development of manmade fibers.</li> <li>Understands the basic concepts in the manufacture of man made fibers.</li> <li>Studies raw material used in the manufacture of viscose rayon.</li> <li>Studies properties of viscose rayon fiber.</li> <li>Understands the uses &amp; applicability of viscose rayon fiber.</li> </ul>
5	Nylon and polyester	<ul style="list-style-type: none"> <li>Studies raw material, used in the manufacture of nylon &amp; polyester fibres.</li> <li>Studies the properties of nylon &amp; polyester fibres.</li> <li>Understand the uses &amp; applicability of nylon &amp; polyester fibres.</li> </ul>

6	Fabric construction	<ul style="list-style-type: none"> <li>Explains the basic concept used in weaving.</li> <li>Understands the basic structure of a hand looms &amp; working of hand loom.</li> <li>Understands the classification of weaves.</li> <li>Explains Basic weaves &amp; Novelty weaves, their characteristics &amp; uses.</li> <li>Understands the non woven fabric construction.</li> </ul>
7	Finishes	<ul style="list-style-type: none"> <li>Understands the concept of finishing.</li> <li>Highlights the need of finishing.</li> <li>Explains types of finishes.</li> <li>Obtain information regarding basic finishes.</li> <li>Obtain information regarding special purpose finishes.</li> </ul>
8	Laundry Reagents & Dry cleaning	<ul style="list-style-type: none"> <li>Understands various laundry reagents &amp; their function in laundry.</li> <li>Understands the concept of Dry cleaning.</li> <li>Explains use of Grease absorbent &amp; Grease solvents for Dry cleaning.</li> </ul>
9	Dyeing & Printing	<ul style="list-style-type: none"> <li>Highlights the importance of the rich heritage of Indian dyeing industry.</li> <li>Gains information about various dyes used on textiles.</li> <li>Understands various techniques of printing.</li> <li>Takes Pride on achieving the skills regarding dyeing &amp; printing.</li> <li>Gains information regarding various traditional techniques of printing on textiles.</li> </ul>
10	Fashion Designing	<ul style="list-style-type: none"> <li>Throws light on the world of fashion designing of modern times.</li> <li>Understands various basic concepts used in fashion designing.</li> <li>Learns Elements of Arts &amp; Principles of Design and their relation to fashion designing.</li> <li>Explain scope of fashion designing in modern India.</li> <li>Acquires basic skills required for fashion designing.</li> </ul>

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