

# BLOCK PRINTING

## *Skill Manual*

GRADE : VI



CENTRAL BOARD OF SECONDARY EDUCATION

Committed to Equity and Excellence in Education

Address: Shiksha Kendra, 2, Community Centre, Preet Vihar, Delhi- 110092



# ACKNOWLEDGEMENTS

## ADVISORY BOARD

**Smt. Nidhi Chibber (IAS)**

Chairperson, Central Board of Secondary Education, Delhi

**Dr. Biswajit Saha, Director**

(Skill Education), Central Board of Secondary Education, Delhi

**Dr. Joseph Emmanuel, Director**

(Academics), Central Board of Secondary Education, Delhi

---

## Coordinator & Curator

**Shri. R.P. Singh, Joint Secretary**

(Skill Education), Central Board of Secondary Education, Delhi

**Smt. Niti Shankar Sharma, Deputy Secretary**

(Skill Education), Central Board of Secondary Education, Delhi

**Shri. Sandeep Sethi, Coordinator**

Princess Diya Kumari Foundation

---

## Content Development Committee

**Ms. Kamal Rathore (Principal)**

**Tagore International School, Jaipur**

Ms. Arshi Malik (Vice- Principal)

---

## Layout and Design

Mr. Kishan Lal Khatik (PGT Visual Art)

Mr. Om Prakash Bhati (TGT Visual Art)



# COLLAGE OF PICTURES BLOCK PRINTING





# **FOREWORD**

## **NEP 2020**

### **IMPORTANCE OF SKILL EDUCATION**

**The national educational policy 2020 propagates experiential and skill-based learning.**

**It also recognizes the importance of soft skills such as communication, team work, problem solving, decision making, analytical thinking, resiliency, etc. as imperative life skills.**

**NEP 2020 has broken the shackles of subject choices being limited to the traditional domains of Science, Commerce and Humanities and allows to cross sectional course selection and gives students the opportunity to enhance their core skills. The inclusion of vocational training is also being supported strongly.**

**This skill education manual is also a series in this endeavour.**



# INDEX

## 1. Introduction to Weaving.

- Weaving and types of weaving
- Weaving process.
- Weaving patterns.
- Worksheet

### Recommended activities

- Paper weaving
- Weaving of a cloth mat
- Visit to a power loom factory

## 2. Introduction of Block Printing.

- a. Block Printing and tools.
- b. Steps for Block making
- c. Types of Block Printing Techniques in India
- d. Types of Popular Block Printing
  - i. Woodcut Printing
  - ii. Block Printing on Fabric
  - iii. Japanese Ukiyo-e woodblock printing
  - iv. Linocut printing
  - v. Reduction printing
  - vi. Rubber stamps
- d. Steps of Block Printing on Fabric
- e. Designs of Block Printing on Fabric
  - i. Boota
  - ii. Buti
  - iii. Jaal
  - iv. Bel

### Recommended activities

- Visit to Rangotri Art Productions field trip
- Block printing by using different vegetables
- Block Printing on Table Mats
- Block Printing on Diary Cover

## 3. Block Printing and Dyeing

- a. Old Methods (Natural Dyes)
- b. Modernization (Chemical Dyes)
- c. A Comparative study of natural and chemical dyes
- d. Rich legacy- Chippa community
- e. Conclusion

### Recommended activities

- Field visit to a local factory
- Block Printing on Tea towels

## 4. From Survival to Revival

- a. Strength of Block Printing
- b. Factors hampering the growth of artisans/ craftsmen
- c. Generating employment

### Recommended activities

- Celebration of National Handloom Day
- Exhibition of artefacts and products prepared by the students during the academic year.
- Proceeds from the exhibition to be used for old age home .

## 5. Glossary

## 6. Bibliography



# 1. INTRODUCTION TO WEAVING



<https://images.app.goo.gl/H9njuGANtyJ3XsaB8>

## **LEARNING OBJECTIVES:-**

- 1.Learners will explore and identify textile weaving.
- 2.Learners will appreciate the efforts and aesthetic skills of craftsmen.



<https://encrypted-tbn1.gstatic.com/images?q=tbn:ANd9GcSlxcztz6Iv9qXplUN66ep3fCux536VItsOVgcMFGzu1000f7gc>

## **LEARNING OUTCOMES**

- 1.Learners will acquire knowledge about weaving and its process.
- 2.Will appreciate the intricacies involved in weaving process.
- 3.Learners will have hands on experience by doing an activity.



# WEAVING AND TYPES OF WEAVING

The tradition of weaving goes back to Neolithic times- approximately 12,000 years ago. The Process of combining warp and weft components to make a useful woven structure or object. It is a method of textile production in which two distinct sets of yarns or threads are interlaced at right angles to form a fabric or cloth. It produces a woven fabric. Lengthwise yarns are called warp crosswise yarns are called weft or filling. It is the craft of lacing fibers together to make fabric or cloth.



<https://images.app.goo.gl/JdDFobzLPrNEanEa6>



<https://images.app.goo.gl/3C2M2resAPvsWVAA>

## TYPES OF WEAVING

It depends on how the **fabrics** are woven. Three basic woven types are **plain, twill and satin plain**

**Plain:** In plain weave each filling yarn passes over and under the warp yarns and the order is reversed in alternating rows. Plain weave is the simplest weave and is stronger and firmer than any other ordinary weave. Most simple and most common type of construction in expensive to produce, durable and flat and tight surface make it one of the most popular weave types. Examples: Taffeta, Crepe, Muslin and Organdy are examples of this weave.

**Twill Weaves:** Weaves are made by interlacing the yarns producing diagonal ribs, ridges across the fabric. Twill weaves among the most commonly used weaves in textile processing.

**Satin :** This creates a super smooth fabric that has a soft hand and drapes well. This weave is achieved by **floating the warp or waft yarn** over four or more of the opposite yarn. The floating yarn is then passed under one of the opposite yarn before repeating the process again.

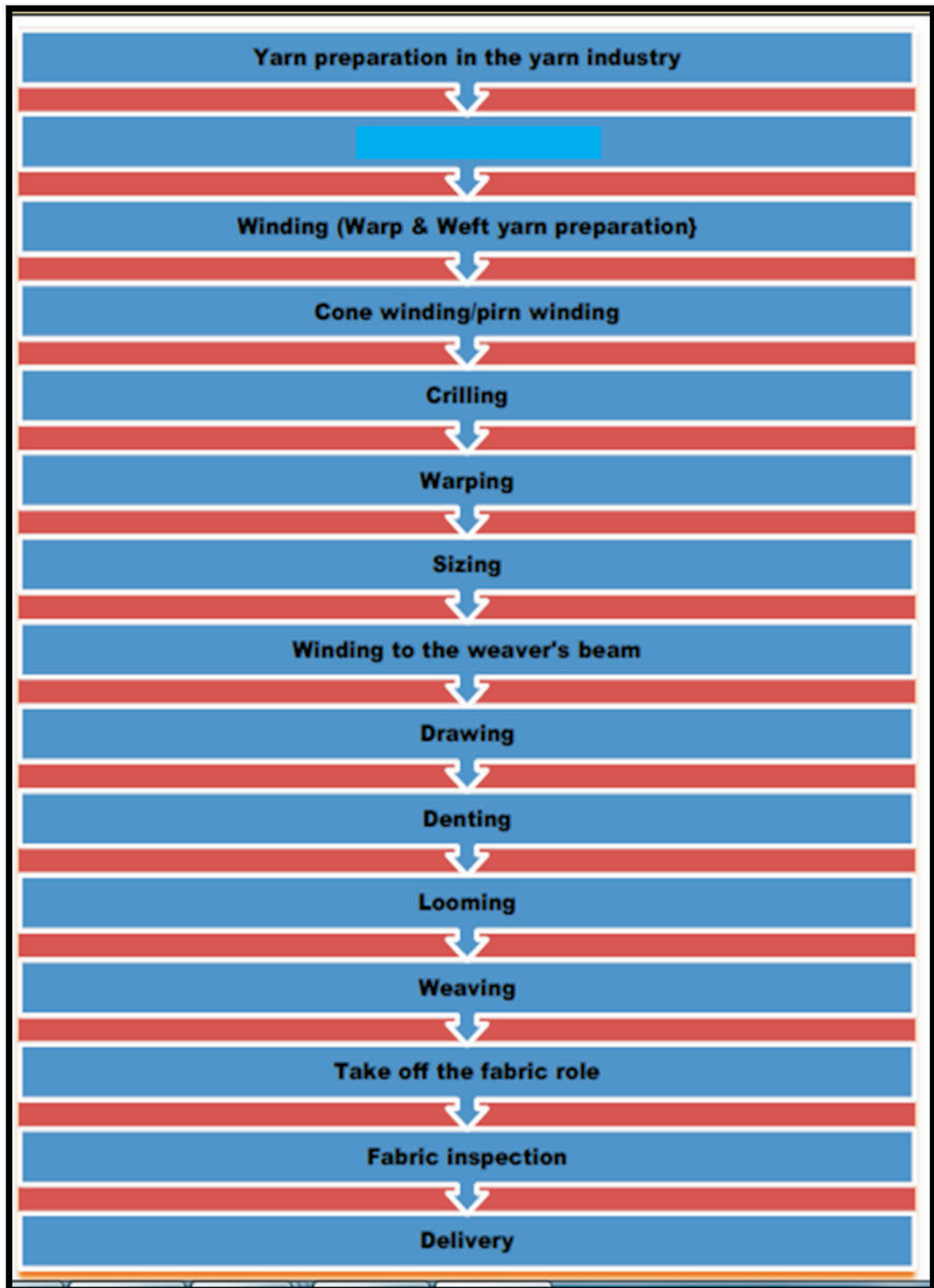
**Basket Weave :** It is an alternative form of the plain weave . It is also referred to as hopsack weave.



<https://images.app.goo.gl/vSC38m6UX4oVMgGj7>

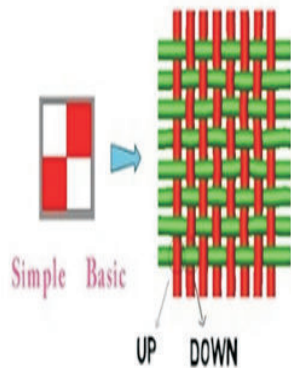


## **WEAVING PROCESS**



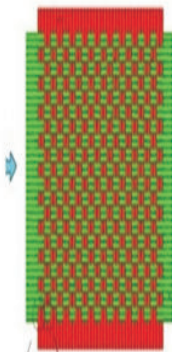


## WEAVING PATTERNS

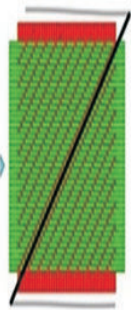


# Types of Weaving ?

### Basket Weave



### Z-Twill Weave



1. Plain Weave

6. Diamond Weave

2. Basket Weave

7. Herringbone Weave

3. Z-Twill Weave

8. Diaper Weave

4. S-Twill Weave

9. Wavy-Twill Weave

5. Satin Weave

10. Honeycomb Weave

## WORKSHEET ON WEAVING

Select the correct answer from the given options.

1. Which basic weave is strongest  
(a) plain (b) twill (c) satin
2. A frame (or machine) on which weaving is done  
(a) yarn (b) loom (c) warp
3. The horizontal threads which are woven across the warp.  
(a) loom (b) weft (c) warp
4. A design or motif that is regularly repeated.  
(a) fiber (b) pattern (c) weft
5. A hand woven textile or cloth weave, commonly figured and used as a wall hanging  
(a) tapestry (b) yarn painting (c) weft
6. The vertical threads which form the base of the weaving  
(a) loom (b) weaving (c) warp
7. Feel or hand of the fabric is its  
(a) texture (b) fall (c) drape
8. Spinning of yarn means  
(a) twisting (b) pulling (c) tex
9. Creativity in textile is also known as.  
(a) fabric (b) textile (c) designing
10. Self- twist spinning is most suitable for  
(a) cotton (b) wool (c) Jute



Sourced by : [www.proprofs.com](http://www.proprofs.com)

**Answer: 1-a, 2-b, 3-b, 4-b, 5-a,6-c,7-a,8-a,9-c,10-b**

### ACTIVITIES RECOMMENDED

1. Weaving of a paper mat
2. Weaving of a cloth mat
3. Visit to a power loom factory.



## **2. INTRODUCTION OF BLOCK PRINTING**



### ***LEARNING OBJECTIVES:-***

1. To comprehend the process of using block with inked impression.
2. To identify and explore specific block printing, textiles, designs and process.
3. To enable the learners to understand the legacy of Block Printing.
4. To create awareness about the effect of places and climate on the style and colours of motifs and designs.



### ***LEARNING OUTCOMES***

1. Learners will be able to understand the basic requirements for Block Printing.
2. Will comprehend the journey of evolution of Block Printing vis-a-vis geographical factors.
3. Learners will develop an interest and respect for the legacy of Block Printing.



## WHAT IS BLOCK PRINTING?

Block printing is a **form of art**, it is done by carving out blocks of wood and then putting ink on them. The blocks are pressed on paper or cloth to get the impression, transferred. It can be done with wood, linoleum, rubber or any other materials.

The Chinese developed the art of block printing. It has flourished since then.

Block Printing is one of the oldest types of print making. It existed as early as the fifth century BC. It has flourished since then with roots in India, China and Japan. Block printing is also known as “relief printing because the ink leaves a raised texture on the paper”.



<https://images.app.goo.gl/HPaDvPq27Grbv4d7>



## ***BLOCK PRINTING AND TOOLS***



<https://images.app.goo.gl/4yq4LukBsNrpNdot8>



<https://images.app.goo.gl/2eNKpW7Re7KPMhRx8>

**Wooden Blocks-** Used to print the patterns on the cloth

**Printing Table-** It is used for printing.

**Wooden Tray with a Bamboo lattice Bed cover-** It is used for spreading of the color evenly.

**Printing Pad-** it is used to spread the color evenly

**Pins-** used to tighten the cloth on the table

**Brushes-** Used to clean the surface for better printing

**Scale-** Used for marking the areas to be printed

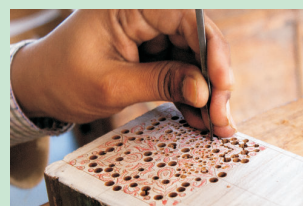
**Sponge woolen cloth-** Used to spread the colour evenly in the wooden tray

## ***STEPS FOR BLOCK MAKING***

- \* To sketch the design.
- \* Carve design on block.
- \* Color Choice
- \* Dying of fabric.
- \* Transferring the design on Fabric.
- \* Drying of Fabric.



<https://images.app.goo.gl/xzMqrXsoLUAcRUhc7>



<https://images.app.goo.gl/xAEBq1FL233zDgda8>



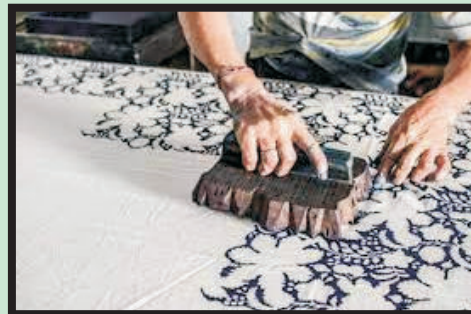
# TYPES OF BLOCK PRINTING TECHNIQUES IN INDIA

**a) Direct printing:** In direct printing the cloth is first bleached and then the desired fabric is dyed and finally printing is done using carved blocks.



<https://images.app.goo.gl/DiGNdDE7CUTP842N8>

**B) Resist printing:** Here the part of the cloth which is not to be dyed is covered with the paste of resin and clay. Then the fabric is dyed with the desirable colour. Later, when it dries completely then finally block printing is done.



<https://images.app.goo.gl/SHYEcs94h2t4mnKc6>

**C) Discharge printing:** Reverse method of block print is called discharge printing.



<https://www.saffronmarigold.com/blog/wp-content/uploads/2021/07/AKT37255-1020x680.jpg>



## TYPES OF POPULAR BLOCK PRINTING

**i. Block printing on wood (woodcut)** - This is the oldest type of block printing, with the images carved out of a solid piece of wood.



**ii. Block printing on fabric (India)**-When it comes to block printing on fabric India is one of the most famous popular choice of all. Though it is believed that it was originated in China but the Chippa community in Rajasthan has spread it widely



**iii. Japanese Ukiyo e woodblock prints**- Block printing was popular in Japan centuries before ukiyo-e first emerged. They were printing using a series of wood blocks carved by professionals and designed by artists.





**iv. Block printing on linoleum (linocut)-** Though the process for linocut prints is same like woodcuts prints but with linoleum blocks as a base it is a modern technique of block printing which originated in Europe in the mid -1800s. It's softer than wood, resists splitting, and retains fine detail



**v. Reduction Block Printing-** Reduction printing, popularized by Pablo Picasso in the 1950s and 60s, is one of the most punishing types of block printing. Since it's impossible to un-carve the block, the finished prints are always a limited series. Mistakes are also challenging to correct. That said, this isn't the most beginner-friendly block printing technique!

**Vi. Rubber stamps-** Rubber is a soft and easily carved surface for block prints, they are small and mounted on wooden blocks or handles. Rubber stamps are widely used for office work and children's toys.





## ***STEPS OF BLOCK PRINTING***

Block Carving : Carving design on a wooden or metal block.



<https://images.app.goo.gl/TLAVtepKqiurNAvd6>

Application of Dyes : Application of dyestuff on the face of the block.



<https://images.app.goo.gl/F4qAY9VC1rmmvvgP8>

Treatment of the fabric : Pressing down the block on selected portions of the fabric.



<https://images.app.goo.gl/WHUJdmYmCuV8Jv1b7>

Printing : Imparting the carved design as many times as desired.

### **Recommended Activities**

1. Visit to Rangotri Art Productions field trip
2. Vegetable Block Printing
3. Block Printing on Table Mats
4. Block Printing on Diary Cover

Sourced by : [www.faridagupta.com](http://www.faridagupta.com)



# DESIGNS OF BLOCK PRINTING ON FABRICS

## BOOTA



<https://images.app.goo.gl/qBdWMg5nHKMTfscf8>

## BUTI



<https://images.app.goo.gl/6d3BLAcS5WzhhMvo9>

## BEL



<https://images.app.goo.gl/MGuxeBamJH2YGafS6>

## JAAL



<https://images.app.goo.gl/7ALBEUujDR7w3JGo6>



### **3. BLOCK PRINTING AND DYEING**

Block printing remains much more time consuming than machine printing but is still widely used today. There are mainly two kinds of dyes used in today's in textile industry 1. Synthetic dye 2. Natural dye

**Synthetic dyes** They are chemically manufactured and are harmful to the skin as well. They are non- biodegradable.

<https://images.app.goo.gl/ERDvAeh1Q2FXXfDMA>



**Natural dyes-** They are purely developed naturally. They are biodegradable and disposing them doesn't cause pollution. They are obtained from renewable sources. Although pure from chemicals but they are often more expensive than the chemical dyes.

<https://carolineforde.com/blog/2014/12/27/eco-printing>



**Conclusion:** Natural dye is better than the synthetic dye but the Textile Industry cannot imagine the printing of the latest styles, designs and motifs without the use of synthetic dyes because of the fast changing fashion, durability and demand of the certain fastness of the required colors . Natural dyes are definitely friendly for human skin but very unstable to washing and have poor fastness. Therefore a correct proportion of both synthetic dye and natural dye can be used in today's modern era.

Note : Azo free dyes are also being used in the textile industries which are free of nitrogen based compounds that release aromatic amines.

## **RICH LEGACY**

Jaipur, other than its historical monuments and rich culture is also famous for Block Printing Art. The process of doing Block Printing flourished since 12<sup>th</sup> Century when the art received a royal patronage from the kings of that era. Since then it is a heritage craft and much loved across India. Block Printing was introduced by “Chhipa Community, the name was derived from the root word ‘Chhapna’ or ‘Chhap’ which means to print, this was the primary job of the community, which included dyeing and printing on fabric. Later, the community migrated and carried their occupation across the country. To meet the growing trends of the market “Chhipa Community, is making changes from time to time and gradually they have now carved a niche in the block printing. Originally the community was located in Bagru village now the hand block printing also extends to Sangner area. With the use of Azo free synthetic dyes and different styles of printing, the industry has gained popularity at the Global level. All the joint efforts put in by cooperative societies have kept the artisans engaged in their traditional work as they are dealing with day to day problems. Block printing remains synonymous with the “Chhipa Community” In India the age old craft of block printing finds expression in different forms in different regions of the country that includes Kalamkari from Andhra Pradesh, Dabu and Sangneri from Rajasthan, Ajrak from Gujarat, Bagh from Madhya Pradesh and many more. Each form has unique style, distinctive color palette and motifs that make it different.



## CONCLUSION

With an increased interest in slow fashion and traditional techniques, block print artisans and cooperatives have begun to benefit from bringing ancient crafts into the modern age. Block printing holds a special space within the textile industry because of its deep storytelling origins as well as the expertise required. Mainstream fashion brands can attempt to copy block printing all they want but nothing will ever come close to the textiles designed by families who have practiced the craft for generations. The obvious snag in a plan to combine ancient traditions with a fast-paced world is the need to scale, and scale quickly. For some block print artisans, in order to meet demands, patterns must be simplified and natural dyes are sometimes substituted for synthetic ones. While these types of partnerships still provide beautifully printed fabric and thriving block print artisan communities, the role of small or artisan-led businesses remains vital to properly preserving the art form. When brands are willing and able to give their artisan partners time to create the generational designs, the finished products are truly breathtaking.





## **4. SURVIVAL TO REVIVAL**

Block printing is a method to print your own designs. It allows you to customize commercially all the designs of your choice and color combinations .Block Printing allows you to create a consistent design multiple times.

### **A.Strengths of Block Printing :**

1. It can be done on a surface of almost any size and texture.
2. It is an art that is truly handmade, there is no limit in the repetition of the size and style.
3. It is the easiest and relatively in expensive method of printing.
4. This method is simple and decorative.



<https://images.app.goo.gl/ktGUp7phQuGiC8M88>



## **B. Factors hampering the growth of artisans/ Craftsmen**

1. Being unorganized, this method involve manual work therefore the working conditions and a healthy and safe environment are pre-requisites.
2. Lack of education, with the advent of big factories, they need to be more skilled with the latest technologies.
3. Poor exposure to new technologies.
4. Absence of market intelligence.
5. Poor institutional framework
6. In consistent monsoons.



<https://maiwahandprints.blogspot.com/2020/10/meet-artisans-who-still-carve-printing.html>

## **C. Generating employment**

The handicrafts sector plays a significant and important role in the country's economy. It provides an employment to a vast segment of crafts person in rural and semi urban areas and generates substantial foreign exchange.



## CELEBRATION OF NATIONAL HANDLOOM DAY

National Handloom Day is celebrated every year on August 7<sup>th</sup>, to commemorate the **Swadeshi Andolan** that began in 1905. It is celebrated to honor the handloom community & acknowledge their contribution to India's social- economic development.



<https://images.app.goo.gl/HsDUKR8MQ6DYZx6W6>

### ***Facts about block printing top ten printing techniques in India.***

1. Bagh Printing - ( Madhya Pradesh)
2. Kalamkari - ( Arunachal Pradesh)
3. Ajrak - Gujarat
4. Dabu - Rajasthan
5. Gold and Silver dust - Rajasthan
6. Sanganeri - Rajasthan
7. Bandhani - Gujarat
8. Lehriya - Rajasthan
9. Batik - Originated in Egypt
10. Bagru Rajasthan

✦ ***Activities Recommended: Poem Recitation in praise of Indian Handloom,***

✦ ***Exhibition of artefacts and products prepared by the students during the academic year.***



## ***GLOSSARY***

1. Boota - A figure that is placed all over the fabric by printing, painting or embroidery. Designs are inspired by plants or animal.
2. Booti - Are a particular type of small motif prints.
3. Chapra - To print
4. Chitgars - Painters and block printers
5. Charkla - The spinning wheel
6. Cheepa - Painter or block printer
7. Datta - A wooden block used for filling color inside the, previously printed out line by rekh block.
8. Dhabu - Type of mud resist printing practiced only in Rajasthan.
  - (i) Fitkari - Alum
  - (ii) Gad - A block used to fill the third or 4th color in a multicolored block design.
9. Jaal - A geometric or floral pattern
10. Nashi - Border.
11. Neel - Indigo
12. Rangaai - Dyeing
13. Rangrez - Dyer
14. Rekh - Here, it is outline of the block
15. Reza - Hand woven cotton fabric
16. Scoouring - "Hari Sarana": Cleaning of the impure fabric for good penetration of color.
17. Suti - Made of cotton
18. Zardi - Deep
19. Neelgar - Community that did indigo dyeing.
20. Bhatkada - Specialized in the craft of block printing
21. Bhatt - Refer to block
22. Ghar - Carver
23. Bhatt - Ghar as a carpenter who specializes in Block printing . This common
24. The Webisabi Project - Works with exclusively natural inks and dyes derived from plants, roots, barks, seeds and flowers harvested in Rajasthan, It is run by Avinash & kriti came from Multan presently in Pakistan, under the patronage of Maharaja Swai Jai Singh & settled in Sanganer in the 18<sup>th</sup> Century.



## **BIBLIOGRAPHY**

<https://images.app.goo.gl/H9njuGANtyJ3XsaB8>  
<https://encrypted-bn1.gstatic.com/images?q=tbn:ANd9GcSlxcztz6Iv9qXplUN66ep3fCux536VIItsOVgcMFGzu1OO0f7gc>  
<https://images.app.goo.gl/JdDFobzLPrNEanEa6>  
<https://images.app.goo.gl/3C2M2resAPvsWVAA>  
<https://images.app.goo.gl/vSC38m6UX4oVMgGj7>  
<https://images.app.goo.gl/YVmp6haGW8e7tMNH6>  
[www.proprofs.com](http://www.proprofs.com)  
<https://images.app.goo.gl/HPaDvPq27GrbZv4d7>  
<https://images.app.goo.gl/4yq4LukBsNrpNdot8>  
<https://images.app.goo.gl/2eNKpW7Re7KPMhRx8>  
<https://images.app.goo.gl/xzMQrXsoLUAcRUhc7>  
<https://images.app.goo.gl/xAEBq1FL233zDgda8>  
<https://images.app.goo.gl/DiGNdDE7CUTP842N8>  
<https://images.app.goo.gl/SHYEcs94h2t4mnKc6>  
<https://www.saffronmarigold.com/blog/wp-content/uploads/2021/07/AKT37255-1020x680.jpg>  
<https://images.app.goo.gl/TLAVtepKqiurNAvd6>  
<https://images.app.goo.gl/F4qAY9VC1rmmvvgP8>  
<https://images.app.goo.gl/WHUJdmYmCuV8Jv1b7>  
[www.faridagupta.com](http://www.faridagupta.com)  
<https://images.app.goo.gl/qBdWMg5nHKMTfscf8>  
<https://images.app.goo.gl/6d3BLAcS5WzhhMvo9>  
<https://images.app.goo.gl/MGuxeBamJH2YGafS6>  
<https://images.app.goo.gl/7ALBEUujDR7w3JGo6>  
<https://images.app.goo.gl/ERDvAeh1Q2FXXfDMA>  
<https://carolineforde.com/blog/2014/12/27/eco-printing>  
<https://www.worldartcommunity.com/blog/2021/05/the-rich-tradition-of-the-block-printing-in-india/>  
<https://images.app.goo.gl/ktGUp7phQuGiC8M88>  
<https://images.app.goo.gl/HsDUKR8MQ6DYZx6W6>  
<https://textilesscholars.blogspot.com/2019/03/weaving-process-flowchart-of-weaving-in.html?m=1>  
<https://tinyworkshops.com/block-printing/>  
<https://maiwahandprints.blogspot.com/2020/10/meet-artisans-who-still-carve-printing.Html>



# CENTRAL BOARD OF SECONDARY EDUCATION

Committed to Equity and Excellence in Education

Address: Shiksha Kendra, 2, Community Centre, Preet Vihar, Delhi- 110092