

COMPETENCY STANDARD FOR BLOCK BATIK AND SCREEN PRINTING

Level: 3

(Informal Sector)

Competency Standard Code: CS-INF-BBSP-L3-EN-V1



National Skills Development Authority
Prime Minister's Office
Government of the People's Republic of Bangladesh

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This Competency Standard for Block Batik and Screen Printing is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

This document has been developed by NSDA in association with Informal Sector, industry representatives, academia, related specialist, trainer and related employee.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

Introduction

The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skills ecosystem and delivery mechanism through a combination of well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program. "Block Batik and Screen Printing" is selected as one of the priority occupations of Informal Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of trainees enrolled in Skills Training. Trainees who successfully pass the assessment will receive a qualification in the National Skills Qualification Framework (NSQF) under Bangladesh National Qualification Framework and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding Elements.

Overview

A competency standard is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of representative from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in Informal Sector.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasizing what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guide

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key components of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

Competency Standards for National Skill Certificate, Level-3 in Block Batik and Screen Printing in Informal Sector

Level Descriptors of NSQF (BNQF 1-6)

Level & Job classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self- motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker	Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

List of Abbreviations

CS	Competency Standard
ISC	Industry Skills Council
NSDA	National Skills Development Authority
NSQF	National Skills Qualifications Framework
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
SCVC	Standards and Curriculum Validation Committee
STP	Skills Training Provider
SOP	Standard Operating Procedure
UoC	Unit of Competency

Approval of Competency Standard

Approved by 22nd Authority Meeting of NSDA Held on 24.11.2022

Md. Saniul Ferdous
Deputy Director (Admin)
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Deputy Director (Admin) and

Officer of Secretarial Duties for Authority Meeting National Skills Development Authority

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Competency Standards for National Skill Certificate, Level-3 in Block Batik and Screen Printing in Informal Sector

Course Structure

SL No	Unit code and Title			Nominal (hours)
Gene	eric Units of Competencies			
1.	GU008L2V1	Work in a team Environment	2	20
Sub '	Total			20
Occu	pation Specific Units of Comp	etencies		
2.	OU-IS-BBSP-01-L3-V1	Perform multi-color Batik	3	50
3.	OU-IS-BBSP-02-L3-V1	Make design and screen	3	60
4.	OU-IS-BBSP-03-L3-V1	Perform multi-color Screen Printing	3	50
5.	OU-IS-BBSP-04-L3-V1	Perform emboss print	3	30
6.	OU-IS-BBSP-05-L3-V1	Perform hand paint and spray print	3	60
Sub Total			250	
Total Duration			270	

Units & Elements at Glance

Generic Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
GU008L2V1	Work in a Team Environment	 Define team role and scope Identify individual role and responsibility Participate in team discussions Work as a team member 	20
		Total hours	20

Sector Specific Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
-	-	-	-
		Total hours	-

Occupation specific competencies

Code	Unit of	Elements of competency	Duration
	competency		(hours)
OU-IS-BBSP-01-L3- V1	Perform Multi- color batik	 Follow OSH practices Prepare for multi-color batik Carryout first waxing Carryout first dyeing Carryout second waxing Carryout second dyeing Carryout finishing and quality checking Clean and maintain tools and workplace 	50
OU-IS-BBSP-02-L3- V1	Make design and screen	 Create design Make screen 	60
OU-IS-BBSP-03-L3- V1	Perform multi- color Screen Printing	 Follow OSH practices Prepare for multi-color Screen Printing Carryout multi-color Screen Printing Carryout finishing and quality checking Clean and maintain tools and workplace 	50
OU-IS-BBSP-04-L3- V1	Perform emboss print	 Follow OSH practices Prepare for emboss print Carryout emboss print Carryout finishing and quality checking Clean and maintain tools and workplace 	30
OU-IS-BBSP-05-L3- V1	Perform hand paint and spray print	 Follow OSH practices Prepare for hand paint and spray print Carryout hand paint Carryout spray print Carryout finishing and quality checking Clean and maintain tools and workplace 	60
		Total Hours	250

Generic Units of Competencies

Unit Code and Title	GU008L2V1: Work in a Team Environment
	This unit covers the knowledge, skills and attitudes (KSAs) required in working in a team environment.
Unit Descriptor	It includes define team role and scope, identify individual role
	and responsibility, participate in team discussions and work as a
	team member.
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables
	1.1. Role and objectives of the team are defined
1. Define team role and	1.2. Team structure, responsibilities and reporting relations are
scope	identified from team discussions and other external sources
2. Identify individual role and responsibility	2.1 Individual roles and responsibilities of <u>team members</u> are identified
	2.2 Reporting relationships among team members are defined and clarified
	2.3 Reporting relationships external to the team are defined and clarified
3. Participate in team	3.1 Ideas related to team plans are contributed
discussions	3.2 Recommendations for improving team work are put
	forward
4. Work as a team	4.1 Effective forms of communication are used to interact
member	with team members
	4.2 Communication channels are followed
	4.3 OHS practices are followed
Range of Variables	
Variables	Range (may include but not limited to):
1. Team Members	1.1 Coach/mentor
	1.2 Supervisor/Manager
	1.3 Peers/Colleagues
	1.4 Employee representative
Evidence Guide	
	hentic, valid, sufficient, reliable, consistent, recent and meet all rsion of the Unit of Competency
	Assessment required evidence that the candidate:
Critical aspects of competency	1.1 demonstrated knowledge in working in a team environment.
	1.2 satisfied the requirements mentioned in the

	1.3	Performance Criteria and Range of Variables
	2.1	Team Structure, Role and Responsibility
	2.2	Individual Members' Roles and Responsibilities
2 11. 1	2.3	Communication Flow and Reporting Structures
2. Underpinning	2.4	Team Planning
knowledge	2.5	Interpersonal Communication Skills
	2.6	Team Meeting Procedures
	2.7	OHS Practices
	3.1	Identifying the role and responsibility of the team
	3.2	Identifying roles and responsibilities of individual
3. Underpinning skills		members
	3.3	Participating in team discussions
	3.4	Working as a team member
	4.1	Commitment to occupational health and safety
	4.2	Sincere and honest to duties
	4.3	Promptness in carrying out activities
4. Required attitude	4.4	Environmental concerns
4. Required attitude	4.5	Eagerness to learn
	4.6	Tidiness and timeliness
	4.7	Respect of peers and seniors in workplace
	4.8	Communicate with peers and seniors in workplace
	5.1	Pens
	5.2	Telephone
5. Resource implications	5.3	Computer
	5.4	Writing materials
	5.5	Online communication
	Com	petency should be assessed by:
6. Methods of	6.1	Written test
assessment	6.2	Demonstration
	6.3	Oral Questioning
	7.1	Competency assessment must be done in NSDA
		accredited assessment centre
7. Context of assessment	7.2	Assessment should be done by a NSDA
		certified/nominated assessor
	1	

Occupation	Specific Unit	ts of Compe	tencies

Unit Code and Title	OU	-IS-BBSP-01-L3-V1: Perform multi-color Batik
Unit Descriptor	This unit covers the skills, knowledge and attitude required to perform multi-color batik. It specifically includes following OSH practices, preparing for multi-color batik, carrying out first waxing, carrying out first dyeing, carrying out second waxing, carrying out second dyeing, carrying out finishing and quality checking and cleaning and maintaining tools and workplace.	
Nominal Hours	50 E	Iours
Elements of Competency	Bolo	formance Criteria With the least of the l
1. Follow OSH practices	1.1	Personal Protective Equipment (PPE) is selected and
		collected as per requirements
	1.2	PPE is worn as required
	1.1	Safe work practices are followed as per workplace standard
2. Prepare for multi-	2.1	Tools, equipment and materials are selected and
color Batik	2.1	collected for multi-color batik
Color Bulk	2.2	Fabrics are selected for batik
	2.3	Fabric processing is performed
	2.4	Design for waxing is selected
	2.5	Waxing liquid is prepared
3. Carryout first waxing	3.1	Fabric is laid on table and pinned to avoid distortion
	3.2	Waxing is performed using waxing tools or by free hand
		as per the design
	3.3	Waxed fabric is dried as per workplace standard
4. Carryout first dyeing	4.1	Solution for dye bath is prepared to meet color
	4.0	specification
	4.2	Fabrics are treated with dye bath until achieving desired
	4.3	shade as per fabric and color Dyed fabrics are dried as per workplace standard
	4.4	Dyed fabrics are treated with hot water and detergent to
	4.4	remove wax
	4.5	Dyed fabrics are washed with water
	4.6	Dyed fabrics are dried as per workplace standard
5. Carryout second	5.1	Fabric is laid on table and pinned to avoid distortion
waxing	5.2	Waxing is performed using waxing tools or by hand as per
		the design
	5.3	Waxed fabric is dried as per workplace standard

6.	Carryout second	6.1	Fabrics are treated with dye bath until achieving desired
	dyeing		shade as per fabric and color
		6.2	Dyed fabrics are dried as per workplace standard
		6.3	Dyed fabrics are treated with hot water and detergent to
			remove wax
		6.4	Dyed fabrics are washed with water
		6.5	Dyed fabrics are dried as per workplace standard
7.	Carryout finishing	7.1	Dried fabrics are ironed as per requirement
	and quality checking	7.2	Quality is checked and faults are identified as per client's
			requirements
		7.3	Finished products are folded, packed and stored as per
			standard procedure
8.	Clean and maintain	8.1	Used dyes and wax are disposed off as per workplace
	tools and workplace		standard
		8.2	1 1
			workplace standard
		8.3	Workplace is cleaned as per workplace standard
R	ange of Variables		
V	ariables	Ran	ge (may include but not limited to):
		1.1	Mask
1.	Personal Protective	1.2	Apron
1.	Equipment (PPE)	1.3	Hand gloves
	Equipment (112)	1.4	Safety Glass/ Goggles
		1.5	Safety shoe/ boots
		2.1	Scissors
		2.2	Iron pan
		2.3	Sauce pan
		2.4	Measuring tape
2.	Tools, equipment	2.5	Wooden scale
	/ 1 1	2.6	Pot
		2.7	Wooden spoon
		2.8	Bucket/ Bowl
		2.9	Burner/ Stove
		2.10	
		3.1	Fabrics
1		3.2	Wax
_	3.6 1	2.2	C 1
3.	Materials	3.3	Color
3.	Materials	3.4	Chemicals
3.	Materials	3.4 3.5	Chemicals Chalk
3.	Materials	3.4	Chemicals

Drying

Ironing

4.2

4.1

Fabric processing

		5.1 White wax
5. Waxing liquid		5.2 Honey wax
		5.3 Resin (Rozon)
		6.1 Dice for batik
_	***	6.2 Tjanting
6.	Waxing tool	6.3 Brush
		6.4 Wooden frame
		7.1 Vat dye
		7.1.1 Vat color
		7.1.2 Hydrous
		7.1.3 Caustic Soda
		7.2 Prussian dye
		7.2.1 Prussian color
		7.2.2 Salt
		7.2.3 Soda
		7.3 Sulphur dye
		7.3.1 Sulphur color
		7.3.2 Sodium
		7.3.3 Dye Fixer
		7.4 Nephthol dye
	0.1.7. 0.1	7.4.1 Nephthol AS/ Nephthol BS
7.	Solution for dye	7.4.2 Monopole soap
	bath	7.4.3 Caustic soda
		7.4.4 Alumina sulfate
		7.4.5 Sodium nitrate
		7.4.6 Sulfuric acid
		7.5 Natural or vegetable dye
		7.5.1 Vegetable (Indigo, Khoyer, Horitoki, pomegranate
		(Dalim, Onion peel, Turmeric, Wood powder,
		Mulberry etc.)
		7.5.2 Copper sulfate
		7.5.3 Ferrous sulfate
		7.5.4 Potassium Dichromate
		7.5.5 Caustic soda
		7.5.6 Soda
		7.5.7 Salt
		8.1 Wrong color
8.	Faults	8.2 Shade variation
	_ ******	8.3 Design mismatched
		8.4 Rejection
Ev	idence Guide	

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency

	1	soment required evidence that the condidate.
		ssment required evidence that the candidate: selected and collected PPE
	1.1	
	1.2	selected and collected tools equipment and materials
1. Critical aspects of	1.3	selected fabric for batik
competency	1.4	performed fabric processing
	1.5	performed waxing
	1.6	prepared dye bath
	1.7	performed dyeing
	1.8	carrying out finishing and quality checking
	2.1	Personal Protective Equipment
	2.2	Tools equipment and materials for batik
	2.3	Different types of fabrics
2. Underpinning	2.4	Fabric processing
knowledge	2.5	Wax, wax design and waxing
	2.6	Fabric dyeing, re-dyeing and related treatment
	2.7	Finished garments checking and faults detection
	2.8	Workplace cleanliness
	3.1	Selecting and collecting PPE
	3.2	Selecting tools equipment and materials
	3.3	Processing fabric
	3.4	Preparing wax liquid
3. Underpinning skills	3.5	Waxing fabrics
	3.6	Preparing dye bath
	3.7	Dyeing and re-dyeing fabrics
	3.8	Performing finishing and quality checking
	3.9	Maintaining tools equipment and workplace
	4.1	Commitment to occupational health and safety
	4.2	Sincere and honest to duties
	4.3	Promptness in carrying out activities
	4.4	Environmental concerns
4. Required attitude	4.5	Eagerness to learn
	4.6	Tidiness and timeliness
	4.7	Respect of peers and seniors in workplace
	4.8	Communicate with peers and seniors in workplace
	5.1	Workplace (simulated or actual)
	5.2	Personal Protective Equipment (PPE)
	5.3	Tools, equipment and materials for batik
5 Pasouras implications	5.4	Fabrics for batik
5. Resource implications	5.5	Fabric processing facility
	5.6	Dyes and chemicals for batik
	5.7	•
6. Methods of		Chemical measuring tools and equipment
		petency should be assessed by:
assessment	6.1	Written test

	6.2	Demonstration		
	6.3	Oral Questioning		
	7.1	Competency assessment must be done	in	NSDA
7. Context of assessment		accredited assessment centre		
	7.2	Assessment should be done by	a	NSDA
		certified/nominated assessor		

Unit Code and Title	OU-IS-BBSP-02-L3-V1: Make design and screen	
Unit Descriptor	This unit covers the skills, knowledge and attitude required to make design and screen. It specifically includes creating design and making screen.	
Nominal Hours	60 Hours	
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables	
1. Create design	 1.1 Trends are searched in different <u>design sources</u> 1.2 Design is selected 1.3 Design is transferred to digital format 1.4 Colors are selected and finalized for screen preparation in case of multi-colors 1.5 Color wise design is traced on tracing paper 	
2. Make Screen	 2.1 Tools, equipment and materials are selected and collected for making screen 2.2 Frame is prepared as per size and measurement of design 2.3 Mesh fabric is set on the frame 2.4 Exposed emulsion chemicals are applied on screen and dried in the dark room 2.5 Designed tracing paper and frame is placed together on the light box 2.6 Light reflection is carried out on screen as per SOP 2.7 Screen is washed by water with high pressure until the design is visible. 2.8 Screen is dried as per workplace standard. 2.9 Design is checked as per SOP 2.10 Faults are marked and rectified if found 	
Range of Variables		
Variables	Range (may include but not limited to):	
1. Design source	1.1 Internet1.2 Photograph1.3 Market survey1.4 Client's Preference	
2. Tools, equipment	 2.1 Light box with accessories 2.2 Wooden/ steel frame 2.3 Pot and spoon 2.4 Plastic scale 2.5 Bucket 2.6 Hand brush 	

	21 34 1 61 2
	3.1 Mesh fabrics
	3.2 Exposed emulsion chemicals
3. Materials	3.3 Scorch tape
	3.4 Boot pin
	3.5 Glue
4. Frame	4.1 Wooden
4. Tranic	4.2 Steel
5 E1	5.1 Photocure TXR
5. Exposed emulsion chemicals	5.2 Autosol screen emulsion
Chemicals	5.3 Hardener
Evidence Guide	
	thentic, valid, sufficient, reliable, consistent, recent and meet all
requirements of current ve	ersion of the Unit of Competency
	Assessment required evidence that the candidate:
	1.1 searched design trends
	1.2 selected and finalized colors for screen preparation
1. Critical aspects of	1.3 traced color wise design
competency	1.4 selected and collected tools equipment and materials
	1.5 prepared frame
	1.6 applied exposed emulsion chemicals
	1.7 prepared error free screen
	2.1 Design
	2.2 Trends
2. Underpinning	2.3 Colors and color selection
knowledge	2.4 Tools equipment and materials for screen
	2.5 Screen development procedures
	2.6 Screen checking and faults rectification
	3.1 Selecting designs for screen
	3.2 Selecting colors for screen
	3.3 Selecting and collecting tools equipment and materials
3. Underpinning skills	3.4 Preparing frame
3. Charpining skins	3.5 Applying exposed emulsion chemicals
	3.6 Preparing screen
	3.7 Checking screen and rectifying faults
	4.1 Commitment to occupational health and safety
	4.2 Sincere and honest to duties
	4.3 Promptness in carrying out activities
	4.4 Environmental concerns
4. Required attitude	4.5 Eagerness to learn
	4.6 Tidiness and timeliness
	4.7 Respect of peers and seniors in workplace
	4.8 Communicate with peers and seniors in workplace
	Communicate with poors and semois in workpiace

	5.1	Workplace (simulated or actual)
	5.2	Tools, equipment for making screen
	5.3	Mesh fabric
5. Resource implications	5.4	Wood for frame
	5.5	Exposed emulsion chemicals
	5.6	Tracing paper
	5.7	Light box
	Com	petency should be assessed by:
6. Methods of	6.1	Written test
assessment	6.2	Demonstration
	6.3	Oral Questioning
	7.1	Competency assessment must be done in NSDA
7. Context of assessment		accredited assessment centre
22 31 W 00 - 00 	7.2	Assessment should be done by a NSDA
		certified/nominated assessor

	OU-IS-BBSP-03-L3-V1: Perform multi-color		
Unit Code and Title	Screen Printing		
Unit Descriptor	This unit covers the skills, knowledge and attitude required to perform multi-color Screen Printing. It specifically includes following OSH practices, preparing for multi-color Screen Printing, carrying out multicolor Screen Printing, carrying out finishing and quality checking and cleaning and maintaining tools and workplace.		
Nominal Hours	50 Hours		
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables		
1. Follow OSH practices	 1.1 Personal Protective Equipment (PPE) is selected and collected as per requirements 1.2 PPE is worn as required 		
2. Prepare for multi- color Screen Printing	 1.3 Safe work practices are followed as per workplace standard 2.1 Tools, equipment and materials are selected and collected for Screen Printing 2.2 Fabric processing is performed in case of printing on fabric for starch removal 		
	 2.3 Screen frames are selected and collected as per SOP 2.4 Working Table is prepared as per workplace standard 2.5 Steel bar of the working table is adjusted as per screen placement 2.6 Modi gum is used to fix the fabric with the table 2.7 Print paste is prepared for Screen Printing if not using 		
3. Carryout multi-color Screen Printing	 ready paste 3.1 Screen frames are set and prepared in a serial for multicolor Screen Printing 3.2 Screen frames and print paste are checked and tested on wastage fabrics 3.3 Fabric is laid on table 3.4 First color is applied using screen as per design specification and wait until it dries. 3.5 Second color is applied using screen as per design specification and wait until it dries. 3.6 Other colors are applied using screen as per design specification as per previous procedures 3.7 Printed fabric is <u>dried</u> properly as per standard requirements 		
4. Carryout finishing and quality checking	4.1 Quality is checked and faults are identified as per client's requirements		

	4.2	Faulty goods are separated and disposed off as per
		workplace standard
	4.3	Printed products are prepared for delivery in case of cut
	4.5	panels.
	4.4	Finished products are ironed, folded, packed and stored in
	7.7	case of complete goods as per standard procedure
5. Clean and maintain	5.1	Excess print pastes are stored separately in air tight
tools and workplace	3.1	container for further use
	5.2	Work aids are washed by water with high pressure spray
	5.3	Work aids are dried and stored as per workplace standard
	5.4	Working table and workplace is cleaned as per workplace
		standard
Range of Variables	l	
Variables	Ran	ge (may include but not limited to):
	1.1	Mask
1. Personal Protective	1.2	Hand gloves
Equipment (PPE)	1.3	Apron
	2.1	Working table
	2.2	Screen frame
	2.3	Squeezer
	2.4	Color pot
	2.5	Pot and spoon
	2.6	Bucket
	2.7	Wooden scale
2. Tools, equipment	2.8	Measuring tape
	2.9	Scissors
	2.10	Dryer
		Iron machine
	2.12	Hemmer
	2.13	Adjustable wrench
		Players
	3.1	Fabrics
	3.2	Color
	3.3	Chemicals
3 Materials	3.4	Scorch tape
	3.5	Modi gum
	3.6	Chalk powder
	3.7	Chalk
	4.1	Washing
4 Fabric processing	4.2	Drying
	4.3	Ironing
<u>l</u>		O

	The specification of the table should be
5 Working table	5.1 Measurement
	5.1.1 Length: 5 feet-16 feet
	5.1.2 Width: 3feet - 5 feet
	5.1.3 Height: 3 feet 4 feet
	6.1 Newtex
	6.1.1 Water
	6.1.2 PG gum
	6.1.3 Apiton
	6.1.4 Binder
	6.1.5 NK fixer
	6.1.6 Oxale (Oxalic Acid)
	6.2 White paste
	6.2.1 Water
	6.2.2 TT powder
6 Drint mosts	6.2.3 Apiton
6 Print paste	6.2.4 Binder
	6.2.5 NK fixer
	6.2.6 Oxale (Oxalic Acid)
	6.3 Golden paste
	6.3.1 F-53
	6.3.2 Golden yellow color
	6.3.3 Golden Afsan
	6.4 Silver paste
	6.4.1 F-53
	6.4.2 Black color
	6.4.3 Silver Afsan
7 Dried	7.1 Dryer
, Direct	7.2 Sunlight
	8.1 Hazy print
	8.2 Stain
8 Faults	8.3 Color drops
o rauns	8.4 Wrong color used
	8.5 Color bleeding
	8.6 Unmatched repeat
9 Work aids	9.1 Screen frame
	9.2 Squeezer
	9.3 Color pot
	9.4 Pot and spoon
	9.5 Bucket
Evidence Guide	

The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all			
requirements of current version of the Unit of Competency			
	Asse	ssment required evidence that the candidate:	
Critical aspects of	1.1	followed OSH practices	
	1.2	selected and collected tools equipment and materials	
	1.3	prepared working table	
competency	1.4	performed fabric processing	
	1.5	prepared print pastes	
	1.6	performed multi-color Screen Printing	
	1.7	performed finishing and quality checking	
	1.8	identified faults	
	2.1	Personal Protective Equipment (PPE)	
	2.2	Tools and equipment for block print	
	2.3	Materials selection	
	2.4	Table preparation	
2. Underpinning	2.5	Fabric processing	
knowledge	2.6	Print paste preparation	
	2.7	Screen Printing	
	2.8	Finishing process	
	2.9	Quality checking of finished goods	
		Maintenance of tools and equipment for Screen Printing	
	3.1	Selecting and collecting PPE	
	3.2	Selecting and collecting tools equipment and materials	
	3.3	Preparing working table	
	3.4	Selecting fabrics	
	3.5	Performing fabric processing	
3. Underpinning skills	3.6	Preparing print paste	
	3.7	Performing single color Screen Printing	
	3.8	Performing finishing and quality checking	
	3.9	Identifying and rectifying faults	
	3.10	Maintaining tools equipment and work place	
	4.1	Commitment to occupational health and safety	
	4.2	Sincere and honest to duties	
	4.3	Promptness in carrying out activities	
	4.4	Environmental concerns	
4 Required attitude	4.5	Eagerness to learn	
1 Required autitude	4.6	Tidiness and timeliness	
	4.7	Respect of peers and seniors in workplace	
	4.7	Communicate with peers and seniors in workplace	
	7.0	Tidiness and timeliness	
	5.1		
5 Resource implications	5.1	Workplace (simulated or actual) Personal Protective Equipment (PPE)	
5 Resource implications	5.3	Personal Protective Equipment (PPE) Tools, equipment and machinery for Screen Printing	
	5.5	Tools, equipment and machinery for Screen Printing	

	5.4	Fabrics for Screen Printing
	5.5	Fabric processing facility
	5.6	Working table
	5.7	Dyes and chemicals for Screen Printing
	5.8	Chemical measuring tools and equipment
	Com	petency should be assessed by:
6 Methods of	6.1	Written test
assessment	6.2	Demonstration
	6.3	Oral Questioning
	7.1	Competency assessment must be done in NSDA
7. Context of assessment	7.2	accredited assessment centre Assessment should be done by a NSDA certified/nominated assessor

Unit Code and Title	OU-IS-BBSP-04-L3-V1: Perform Emboss print		
Unit Descriptor	This unit covers the skills, knowledge and attitude required to perform emboss print. It specifically includes following OSH practices, preparing for emboss print, carrying out emboss print, carrying out finishing and quality checking and cleaning and maintaining tools and workplace.		
Nominal Hours	30 Hours		
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables		
1. Follow OSH practices	 1.1 Personal Protective Equipment (PPE) is selected and collected as per requirements 1.2 PPE is worn as required 1.3 Safe work practices are followed as per workplace standard 		
2. Prepare for emboss print	 2.1 Tools, equipment and materials are selected and collected for emboss print 2.2 Fabric processing is performed in case of printing on fabric for starch removal 		
	 2.3 Printing methods are selected as per design 2.4 Working Table is prepared as per workplace standard 2.5 Modi gum is used to fix the fabric with the table 2.6 Print paste is prepared for emboss print if not using ready paste 		
3. Carryout emboss print	 3.1 Print pastes are checked and tested on wastage fabrics 3.2 Fabric is laid on table 3.3 Printing procedures are performed as per design specification 3.4 Printed fabric is dried as per standard requirements 3.5 Printed fabrics are ironed in back side to make emboss as per design specification 		
4. Carryout finishing and quality checking	 4.1 Quality is checked and <u>faults</u> are identified as per client's requirements 4.2 Faulty goods are separated and disposed off as per workplace standard 4.3 Printed products are prepared for delivery in case of cut panels. 4.4 Finished products are ironed, folded, packed and stored in case of complete goods as per standard procedure 		
5. Clean and maintain tools and workplace	 5.1 Excess print pastes are stored separately in air tight container for further use 5.2 <u>Work aids</u> are washed by water with high pressure spray 		

	5.3 Work aids are dried and stored as per workplace standard
	5.4 Working table and workplace is cleaned as per workplace
	standard
Range of Variables	
Variables	Range (may include but not limited to):
1. Personal Protective	1.1 Mask
Equipment (PPE)	1.2 Hand gloves
Equipment (1 FE)	1.3 Apron
	2.1 Working table
	2.2 Screen frame
	2.3 Wooden block
	2.4 Hand brush
	2.5 Squeezer
	2.6 Color pot
	2.7 Pot and spoon
2 T1	2.8 Bucket
2. Tools, equipment	2.9 Wooden scale
	2.10 Measuring tape
	2.11 Scissors
	2.12 Dryer
	2.13 Iron machine
	2.14 Hemmer
	2.15 Adjustable wrench
	2.16 Players
	3.1 Fabrics
	3.2 Color
	3.3 Chemicals
	3.4 Scorch tape
3 Materials	3.5 Chalk
	3.6 Chalk powder
	3.7 Pencils
	3.8 Sharpener
	3.9 Eraser
4 Fabric processing	4.1 Washing
	4.2 Drying
	4.3 Ironing
5 Printing methods	5.1 Using Screen
	5.2 Using Block
	5.3 Using hand brush
6 Woods'n - 4-1-1	The specification of the table should be
6 Working table	6.1 Measurement

	6.1.1 Length: 5 feet-16 feet
	6.1.2 Width: 3 feet - 5 feet
	6.1.3 Height: 3 feet - 4 feet
	1
7 Print paste	
	7.3 NK fixer
	7.4 Dye stuff (Different color)
	8.1 Using Screen
	8.1.1 Place screen
	8.1.2 Put print paste on screen
	8.1.3 Move rubber squeezer and lapped it on the screen
	8.1.4 Remove the screen from fabric
	8.2 Using Block
8 Printing procedures	8.2.1 Put print paste in color tray
	8.2.2 Put block on color pad
	8.2.3 Print on fabric
	8.3 Using Hand brush
	8.3.1 Put print paste in color palate
	8.3.2 Take color by brush
	8.3.3 Draw design
9 Dried	9.1 Dryer
) Diled	9.2 Sunlight
	10.1 Hazy print
	10.2 Stain
	10.3 Color drops
10 Faults	10.4 Wrong color used
10 Faults	10.5 Color bleeding
	10.6 Unmatched repeat
	10.7 Low puff
	10.8 Irregular puff
	11.1 Screen frame
	11.2 Wooden block
11 Work aids	11.3 Hand brush
	11.4 Squeezer
	11.5 Color pot
	11.6 Pot and spoon
	11.7 Bucket
	11.8 Color palate
	r

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency

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	5.7	Dyes and chemicals for Screen Printing
	5.8	Chemical measuring tools and equipment
	Com	petency should be assessed by:
6 Methods of	6.1	Written test
assessment	6.2	Demonstration
	6.3	Oral Questioning
7. Context of assessment	7.1	Competency assessment must be done in NSDA accredited assessment centre
	7.2	Assessment should be done by a NSDA
		certified/nominated assessor

Unit Code and Title	OU-IS-BBSP-05-L3-V1: Perform hand paint and		
Unit Code and Title	spray print		
Unit Descriptor	This unit covers the skills, knowledge and attitude required to perform hand paint and spray print. It specifically includes following OSH practices, preparing for hand paint and spray print, carrying out hand paint, carrying out spray print, carryout finishing and quality checking and cleaning and maintaining tools and workplace.		
Nominal Hours	60 Hours		
Elements of Competency	Performance Criteria Bold & Underlined terms are elaborated in the Range of Variables		
1. Follow OSH practices	1.1 Personal Protective Equipment (PPE) is selected and		
	collected as per requirements		
	1.2 PPE is worn as required		
	1.3 Safe work practices are followed as per workplace standard		
2. Prepare for hand paint	2.1 <u>Tools, machine</u> and <u>materials</u> are selected and collected		
and spray print	for hand paint or spray print		
	2.2 Fabric processing is performed in case of starch in the fabric		
	2.3 <u>Design</u> for hand paint or spray is selected		
	2.4 Design is <u>traced</u> on fabric in case of hand paint if necessary		
	2.5 Paper board pattern is prepared for spray print as per design requirements		
	2.6 Frame or working Table is prepared as per workplace standard		
	2.7 Print paste is prepared for hand paint or spray print		
3. Carryout hand paint	3.1 Fabric is set on frame or table		
	3.2 Color is checked and tested on wastage fabric with hand		
	<u>brush</u>		
	3.3 Hand paint is performed on selected fabrics as per design		
	specification		
	3.4 Painted fabric is dried as per standard requirements		
4. Carryout spray print	4.1 Fabric is set on frame or table		
	4.2 Liquid colors are inserted in the color chamber of the spray gun or bottle		
	4.3 Color is checked and tested on wastage fabric by spray		
	4.4 Spray print is performed on selected fabrics as per design specification		
	4.5 Painted fabric is dried as per standard requirements		
5. Carryout finishing and	5.1 Dried fabrics are ironed as per requirement		
quality checking	5.2 nQuality is checked and <u>faults</u> are identified as per client's requirements		

	5.3 Finished products are folded, packed and stored as per standard procedure
6. Clean and maintain	6.1 Excess print pastes are stored separately in air tight
tools and workplace	container for further use
	6.2 Work aids are washed with water or cleaned as per
	workplace standard.
	6.3 Work aids are dried and stored as per workplace standard
	6.4 Working table and workplace is cleaned as per workplace
	standard
Range of Variables	
Variables	Range (may include but not limited to):
Personal Protective	1.1 Mask
Equipment (PPE)	1.2 Hand gloves
	1.3 Apron
	2.1 Working table
	2.2 Wooden frame
	2.3 Color pot
	2.4 Color palate
	2.5 Color mixing brush
2. Tools, machine	2.6 Color brush
2. 100is, macinie	2.7 Pot and spoon
	2.8 Wooden scale
	2.9 Measuring tape
	2.10 Scissors
	2.11 Spray gun
	2.12 Iron machine
	3.1 Fabrics
	3.2 Color
	3.3 Chemicals
	3.4 Chalk
3. Materials	3.5 Pencil
	3.6 Eraser
	3.7 Sharpener
	3.8 Carbon paper
	3.9 Tracing paper
4 Fabric processing	4.1 Washing
	4.2 Drying
	4.3 Ironing
	5.1 Motif (Folk, Geometric, Modern)
5 Design	5.2 Occasional theme
	5.3 Floral
	<u> </u>

	5.4 Nature
	5.5 Letter
	6.1 Free hand sketch
6 Traced	6.2 Carbon paper
	6.3 Perforated tracing sheet
	7.1 Newtex
	7.1.1 Water
	7.1.2 PG gum
	7.1.3 Apiton
	7.1.4 Binder
	7.1.5 NK fixer
	7.1.6 Oxale (Oxalic Acid)
	7.2 White paste
	7.2.1 Water
	7.2.2 TT powder
	7.2.3 Apiton
	7.2.4 Binder
7 Print paste	7.2.5 NK fixer
_	7.2.6 Oxale (Oxalic Acid)
	7.3 Golden paste
	7.3.1 White paste
	7.3.2 Golden yellow color
	7.3.3 Golden Afsan
	7.4 Silver paste
	7.4.1 White paste
	7.4.2 Black color
	7.4.3 Silver Afsan
	7.5 Afsan
	7.5.1 F-53
	7.5.2 Golden Afsan/ Silver Afsan
	8.1 0 size
	8.2 2 size
8 Hand brush	8.3 4 size
	8.4 6 size
	8.5 8 size
	8.6 10 size
	8.7 12 size
	8.8 Flat 10 size
	8.9 Flat 12 size
9 Faults	9.1 Color drops
	9.2 Wrong color used

	0.2	Calan blandin a
		Color bleeding
		Mismatched design
	10.1	Color brush
		Tracing sheets
10 Work aids	10.3	Paper pattern
10 Work ards	10.4	Spray gun
	10.5	Color pot
	10.6	Pot and spoon
Evidence Guide		
The evidence must be autrequirements of current ve		, valid, sufficient, reliable, consistent, recent and meet all
requirements of current ve	1	ssment required evidence that the candidate:
	1.1	followed OSH practices
	1.1	selected and collected tools equipment and materials
	1.3	performed fabric processing
	1.4	selected design for hand paint and spray print
1. Critical aspects of	1.5	traced design on fabric
competency	1.6	prepared frame or working table
	1.7	prepared print paste
	1.8	performed hand paint and spray print
	1.9	performed finishing and quality checking
		identified and rectified faults
	2.1	Personal Protective Equipment (PPE)
	2.2	Tools and equipment for hand paint and spray print
	2.3	Materials selection
	2.4	Frame or table preparation
	2.5	Fabric processing
2. Underpinning	2.6	Print paste preparation
knowledge	2.7	Hand paint
imo wie uge	2.8	Spray print
	2.9	Finishing process
		Quality checking of finished goods
		Maintenance of tools and equipment for hand paint and
	2.11	1 1
	2.1	spray print Salasting and collecting PDE
	3.1	Selecting and collecting PPE
	3.2	Selecting and collecting tools equipment and materials Preparing frame or working table
3. Underpinning skills	3.4	Selecting fabrics
	3.4	Performing fabric processing
	3.6	Preparing print paste
	3.7	Performing hand paint and spray print
	3.7	Performing finishing and quality checking
	3.9	Identifying and rectifying faults
	5.9	ruentifying and rectifying faults

	3.10 Maintaining tools equipment and work place		
	4.1 Commitment to occupational health and safety		
	4.2 Sincere and honest to duties		
	4.3 Promptness in carrying out activities		
1 Deguined attitude	4.4 Environmental concerns		
4. Required attitude	Eagerness to learn		
	Tidiness and timeliness		
	Respect of peers and seniors in workplace		
	4.8 Communicate with peers and seniors in workplace		
	5.1 Workplace (simulated or actual)		
	5.2 Personal Protective Equipment (PPE)		
	5.3 Tools, equipment and machinery for hand paint and spray		
	print		
5. Resource implications	Fabrics for hand paint or spray print		
	5.5 Fabric processing facility		
	5.6 Frame or working table		
	5.7 Dyes and chemicals for hand paint and spray print		
	5.8 Chemical measuring tools and equipment		
	Competency should be assessed by:		
6 Methods of	6.1 Written test		
assessment	6.2 Demonstration		
	6.3 Oral Questioning		
	7.1 Competency assessment must be done in NSDA		
7. Context of assessment	accredited assessment centre		
	7.2 Assessment should be done by a NSDA certified/nominated assessor		
	certified/nominated assessor		

Development of Competency Standard

The Competency Standards for National Skills Certificate in Block Batik and Screen Printing Occupation, Level- 3 is developed by NSDA 23-27 October 2022.

List of Members

Sl No	Name and Address	Position in the committee	Signature
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Validation of Competency Standard

The Competency Standards for National Skills Certificate in Block Batik and Screen Printing, Level- 3 is validated by NSDA 9^{th} November 2022.

List of Members

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