

**Curriculum
For
Certificate in Mosaic Training
(Duration of Course Six Months)
Code:VD35S003
(2013)**

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Introduction

The Marble Mosaic Course has been developed keeping in view the demand of the marble industry of Pakistan. This course aims to develop skills of the new entrants as well as those workers who are already working in the related industries. In this course, major focus is given on acquisition of competencies as a large chunk of contents cover practical portion with supporting theory to understand the fundamentals of the marble mosaic work.

Objective:

To provide the basic skill to the trainees in the field of Marble Mosaic. It will enable the trainees to meet the challenges in the field of marble industry. Further, to improve the skill level of the trainees and prepare them for the marble industry to meet the market competition.

Specific Objective:

1. Basic information about Marble.
2. Introduction of various mosaic materials.
3. Provision of basic skills in marble handling, storage, cutting, designing and fixing.
4. Prepare trainees as per market requirement.
5. Educate them with latest techniques in marble mosaic making.
6. Maximum exposure to the design and execution process.
7. Importance of skilled workers in the market.
8. Knowledge about different tools for Mosaic making.
9. Knowledge of different techniques for mosaic making.
10. Knowledge about importance of safety during the work.
11. Capable using of cutting, grinding and polishing machines.

Competencies gained after completion of course :

On successful completion of this course the trainee would be able to:

1. Recognition of various types of marble.
2. Know how about the tools and equipment used in marble mosaic.
3. Carry out all safety rules and precautions for personal and equipment.
4. Usage of nippers, grinders etc during mosaic making process.
5. Identify the quality of the marble and able to distinguish good and poor quality of marble.
6. Designing various patterns for mosaic.

Job opportunities available immediately and in the future

After completion of this course the candidates can do in the following areas/field:

1. Can work in marble mosaic sector.
2. Start their own business for marble mosaic.
3. Opportunities to work abroad.

Trainee entry level:

Secondary School Certificate (Matric)

Minimum qualification of trainer:

Intermediate with 3 years experience in Marble mosaic.

Medium of Instruction:

Urdu/English.

Sequence of the modules:

Module A- Prepare activity plan
Module B- Create stone pieces.
Module C- Make design / drawing.
Module D- Fix pieces and design.
Module E- Perform polishing.
Module F- Maintain tools / equipment.
Module G- Ensure safety precautions.

Timeframe of Assessment:

Duration of Course:	6 Months.
Total Hours:	800 hrs.
Days Per Week:	06.
Per Week Hours:	40 hrs.
Per Day Hours:	07 Hrs. (Friday, 5 Hrs.)
Training Methodology:	Theory & Practical.

Curriculum Overview

Module Title and Aim	Learning units	Theory Days/hour	Workplace Days/hour	Timeframe for modules
<p>Module A- Prepare activity plan.</p> <p>Aim This module covers preparation of plan for work.</p>	<ol style="list-style-type: none"> 1. Understanding of marble 2. Interact with customer and understand demand. 3. Take order 4. Select material 5. Prepare estimate. 	20	80	Independent
<p>Module B- Create mosaic pieces (Tessarae, tukri)</p> <p>Aim This module covers the competencies that are required to create mosaic pieces.</p>	<ol style="list-style-type: none"> 1. Arrange material. 2. Select tools / equipment. 3. Adjust cutting machine. 4. Cut marble pieces. 5. Tumbling of cut pieces 6. Sorting / storage. 7. Labeling the inventory. 	20	80	After module A

<p>Module C- Make design / Drawing.</p> <p>Aim This module deals with the competencies gained for making designs for mosaic.</p>	<ol style="list-style-type: none"> 1. Select tools / equipments. 2. Select materials. 3. Draw sketch. 4. Take printout of sketch. 	20	80	After module B
<p>Module D – Making mosaic</p> <p>Aim This module deals with the competencies required for using different methods and techniques of mosaic making.</p>	<ol style="list-style-type: none"> 1. Arrange material. 2. Select tools. 3. Place mesh on sketch. 4. Paste pieces on base. 	40	200	After module C
<p>Module E – Grinding and polishing.</p> <p>Aim This module deals with the competencies required to perform the polishing and finishing of mosaic.</p>	<ol style="list-style-type: none"> 1. Perform grinding. 2. Perform fine grinding. 3. Prepare chemical polish. 4. Apply polishing. 5. Perform buffing. 6. Quality check 7. Ensure proper packaging and safe storing 	20	80	After module D
<p>Module F- Maintain tools /</p>	<ol style="list-style-type: none"> 1. Apply oil to machine. 	16	64	

<p>equipments.</p> <p>Aim This module covers the competencies required for maintenance of tools and equipment</p>	<ol style="list-style-type: none"> 2. Protect machine from dust. 3. Place tools properly 4. Clean work place. 5. Check availability of electricity 6. Check condition of machines. 			
<p>Module G- Ensure safety precautions</p> <p>Aim This module covers the knowledge of occupational health and safety procedures</p>	<ol style="list-style-type: none"> 1. Wear proper clothing. 2. Ensure safety of machines. 3. Ensure water drainage. 4. Ensure workplace safety. 	16	64	

CURRICULUM CONTENTS

Module A: Prepare activity plan.

Objective of the Module: To enable the trainee to interact with the customer, take orders and prepare estimates.

Duration: Theory: 20 hours Practice: 80 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials required	Learning place
A-1: Understanding of Marble	Able to: Understand the nature, characteristics and physical properties of marble	Knowledge Of: Various types of marbles and their characteristics Ability to: To recognize and differentiate between different types of marbles	20	Specimen of Marble	Class room
A-2: Interact with the customer and understand demand	Able to: Interact with perspective customer To understand the demand of the customer Brief the customer about the products and their	Knowledge Of: Understanding of Mosaic product and its details Understanding the requirement of the customer Ability to: Note down the requirements of the	20	Mosaic pieces Mosaic products	Class room

	specifications.	customer Satisfy customers with positive statements/build trust and loyalty			
A-5: Prepare estimate	Able to: Calculate cost of the product.	Knowledge of: Size of the product Quantity Material cost Labor cost Overheads costs Transportation cost Ability to: Prepare estimate based on quantity of material and all the overheads.	20		Class room
A-3: Take order	Able to: take order from the customer	Knowledge Of: Final design of the product Price of the product Time required Deadline Ability to: Finalize the order based on customer demands and timelines.	20	Mosaic products	Class room
A-4:	Able to:	Knowledge of:	20	Mosaic	Class room

Select material:	Choose material required for the order.	Quality of material Colors required Quantity of material of each color Ability to: Select the required material.		pieces of different colors Mesh Adhesives Papers	
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Module B: Create mosaic pieces (Tesserae, tukri)

Objective of the Module: To gain knowledge about cutting and tumbling process of mosaic pieces:

Duration: Theory: 20hours Practice: 80hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials required	Learning place
B-1: Arrange material:	Able to: Arrange the material according to the requirement	Knowledge Of: 1. Different types and quality of stones 2. Quantity of stones according to color. 3. Size of material. Ability to: Identify and select various types of marble tiles	10	Marble tiles (cut to size & calibrated)	Class Room
B-2: Select tools/equipments:	Able to: Select and use correct tools/equipments	Knowledge Of: Cutting tools Grinding tools Quality of tools Ability to: Identify and use the	10	Grinders Nippers Hammer Grinding disk	Class Room

		appropriate tools/equipment Maintenance of tools/equipment.			
B-3: Adjust cutting machine:	Able to: Set/adjust the machine for required cutting	Knowledge Of: 1. Cutting machine. 2. Check cutting blades. Ability to: Understand machine adjustments. Fix cutting blades in machine.	20	Cutting machine Cutting blades	Class Room/factory
B-4: Cut marble pieces:	Able to: Operate cutting machine and cut marble pieces	Knowledge Of: 1. Cutting machine 2. fixing required blades in the machine 3. Do cutting of mosaic pieces. Ability to: Cut marble pieces using a cutting machine	20	Cutting machine Cutting blades Marble tiles	Class Room/factory

<p>B-5: Tumbling of cut pieces:</p>	<p>Able to: Smoothen the edges of pieces using tumbler.</p>	<p>Knowledge of: Purpose of the tumbler. Use of tumbler to obtain smooth-edged pieces</p> <p>Ability to: Operate tumbler to obtain smooth edged pieces</p>	<p>20</p>	<p>Tumbling machine Tumbling consumable Marble mosaic pieces</p>	<p>Class Room/factory</p>
<p>B-6: Sorting/ storage:</p>	<p>Able to: Sort the mosaic material according to size, color, quality and store them at appropriate place.</p>	<p>Knowledge of: Different types of marble mosaic. Sorting of material according to size and shape. Storing the sorted material safely and appropriately.</p> <p>Ability to: Sort the mosaic material and store them appropriately.</p>	<p>10</p>	<p>Marble Mosaic pieces Storage containers</p>	<p>Class Room/factory</p>

<p>B-7: Labels of inventory</p>	<p>Able to: Maintain a proper inventory list and tag the material accordingly</p>	<p>Knowledge of: Importance of maintaining inventory. Tagging of stored material Maintaining an inventory register.</p> <p>Ability to: Maintain proper inventory records.</p>	<p>10</p>	<p>Inventory registers</p>	<p>Class Room/factory</p>
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Module C: Make design / Drawing

Objective of the Module: To gain knowledge about making sketch / design free hand and in any computer software

Duration: Theory: 20hours Practice: 80 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials required	Learning place
C-1: Select tools/ equipment:	Able to: Select and use correct tools	Knowledge of: Various drawing tools Computer software for designing Ability to: Use drawing tools Use computer software for design	30	Drawing sheet Set squares Pencil Eraser Measuring tape Computer Computer software Printer	Class room

<p>C-2: Select Materials:</p>	<p>Able to: Select a materials as per customer requirements</p>	<p>Knowledge of: Customer requirements Design Color scheme</p> <p>Ability to: Select material as per customer requirements.</p>	<p>20</p>	<p>Mosaic products</p>	<p>Class room</p>
<p>C-3: Draw sketch</p>	<p>Able to: Draw a rough sketch of product as per the customer requirements.</p>	<p>Knowledge of: Free hand sketching Use of drawing tools Use computer software to draw the sketch</p> <p>Ability to: Draw a sketch of required product</p>	<p>45</p>	<p>Drawing sheet Pencil Eraser Set squares Measuring tape Computer & software Printer</p>	<p>Class room</p>

C-4: Take printout of sketch	Able to: Use computer and printer to get print out of sketch	Knowledge of: Using computer and printer Ability to: Use computer and printer to get print out of sketch	5	Computer Computer software Printer Paper	Class room
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Module D: Making Mosaic

Objective of the Module: knowledge about creating a mosaic from a specific design and with selected color scheme.

Duration: Theory: 40 hours Practice: 200hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials required	Learning place
D1: Arrange material	Able to: Arrange the required material	Knowledge of: Customer requirements Quantity of material Color scheme Size of pieces Ability to: Arrange the material required for a particular design	20	Mosaic pieces	Class room/ Practical work area
D2: Select tools	Able to: Select and use correct tools	Knowledge of: Tools required for making mosaic	20	Nippers Grinders	Class room/ Practical work area

		<p>Safety precautions for using the tools</p> <p>Ability to:</p> <p>Select and use the tools required for mosaic making considering safety</p>		<p>Hammer</p> <p>Glue</p> <p>Gloves</p> <p>Apron</p> <p>Dust mask</p> <p>Safety goggles</p>	
D3: Place mesh on sketch	Able to: Place mesh on the sketch	<p>Knowledge of:</p> <p>Use of mesh and polythene sheet for mosaic making</p> <p>Proper placement of mesh on the sketch/design</p> <p>Ability to:</p> <p>Prepare a mosaic base by placing polythene sheet and mesh over the design</p>	120	<p>Design</p> <p>Polythene sheet</p> <p>Mesh</p> <p>Glue</p>	Class room/ Practical work area
D4: Paste pieces on the base	Able to: Paste mosaic pieces on the base	Knowledge of: Pasting mosaic pieces on the base, using	80	Mosaic base	Class room/ Practical

		<p>appropriate type and quantity of glue</p> <p>Ability to: Paste properly and as per design requirement</p>		<p>Pieces</p> <p>Glue</p> <p>Forceps</p> <p>Nipper</p> <p>Chiser</p> <p>Brush</p>	work area
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Module E: Grinding and Polishing

Objective of the Module To enable the trainee to be able to perform grinding and polishing of mosaic

Duration: Theory: 20hours Practice: 80hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials required	Learning place
E.1 Perform grinding	Able to: Use grinding machine safely	Knowledge of: Grinding disc Grain size of the grinding disc Handling the grinding machine Ability to: Assess the quality of the grinding disc Fix grinding disc properly in the machine Hold the machine safely on to the material Assess the required level of grinding	20	Grinding discs of different sizes, Grinder (bench / hand)	Class room / marble factory

<p>E.2</p> <p>Perform fine grinding</p>	<p>Able to: Use grinding machine safely</p>	<p>Knowledge of:</p> <p>Grinding disc</p> <p>Grain size of the grinding disc</p> <p>Handling the grinding machine</p> <p>Ability to:</p> <p>Assess the quality of the grinding disc</p> <p>Fix grinding disc properly in the machine</p> <p>Hold the machine safely on to the material</p> <p>Assess the required level of grinding</p>	<p>20</p>	<p>Grinding discs of different sizes, Grinder (bench / hand)</p>	<p>Class room / marble factory</p>
<p>E.3</p> <p>Prepare chemical polish</p>	<p>Able to: Mix the materials in correct ratio to prepare chemical polish</p>	<p>Knowledge of :</p> <p>Chemical used in polishing</p> <p>Quality of different polishes</p>	<p>5</p>	<p>Ingredient of chemical polish</p>	<p>Class room / marble factory</p>

		<p>Ability to:</p> <p>Mix the ingredient of polish safely</p> <p>Prepare polish in required quantity</p>			
<p>E.4</p> <p>Apply polish on material</p>	<p>Able to:</p> <p>Apply polish on the surface in correct quantity</p>	<p>Knowledge of :</p> <p>Area to be polished</p> <p>Material used in polishing</p> <p>Ability to:</p> <p>Assess the cleanliness before polishing</p> <p>Apply polish in minimum required thickness</p> <p>Take safety measure</p> <p>Use machine safely for polishing</p>	20	<p>Chemical polish</p> <p>Dry cloth</p>	<p>Class room / marble factory</p>
<p>E.5</p> <p>Perform buffing on</p>	<p>Able to:</p> <p>Make the surface smooth by buffing</p>	<p>Knowledge of :</p> <p>Material used in buffing</p>	20	<p>Grinder (handy),</p> <p>Buffing</p>	<p>Class room / marble factory</p>

material		Ability to: Assess the cleanliness before buffing Handle the machine safely Fix the buffing material in the machine		disks	
E.6 Quality Check	Able to: Check the quality of finished product and take corrective measures if needed	Knowledge of: Standard of finished product Ability to: Check the quality of finished product Repair sub quality product	5	Finished product	Class room/Marble factory
E.7 Ensure proper packaging and storing	Able to: Pack the finished goods as per packing standards and keep record of inventory	Knowledge of : Importance of packing Safe handling of the product Ability to: Pack and handle the product carefully.	10	Mosaic product Packing material Cartons / boxes	marble factory

		Store and pack the finished product safely Use strong packing Numbering for identification			
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Module F: Maintain Tools and Equipment

Objective of the Module: To enable the trainee to maintain the tools and equipments.

Duration: Theory: 16hours Practice: 64 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials required	Learning place
F.1 Apply oil to machines.	Able to Lubricate the machine as per manufacturer's recommendations	Knowledge of: Types of oil Oiling points of machines Frequency of oiling Ability to: Maintain the oiling record Oil the machines in required frequency Clean the machines after oiling	10	All machines	Marble factory
F.2 Protect	Able to Perform steps to	Knowledge of : Machines to be	10	All machines	Marble factory

<p>machines from dust</p>	<p>protect machines from dust</p>	<p>protected</p> <p>Ability to:</p> <p>Cover the machines with dust protection covers</p> <p>Keep the area dust free</p> <p>De dusting of machines at regular intervals</p>			
<p>F.3</p> <p>Place tools properly</p>	<p>Able to</p> <p>Keep tools at designated areas</p> <p>Maintain inventory of tools</p>	<p>Knowledge of :</p> <p>Tools</p> <p>Tool box</p> <p>Tool holder</p> <p>Ability to:</p> <p>Place tools at designated place</p> <p>Maintain the record of tools</p> <p>Place the tools safely</p>	<p>10</p>	<p>All tools</p>	<p>Work place</p>

F.4	Able to	Knowledge of:			
Clean workplace	Make the workplace clean and tidy after the job is finished	Importance of cleanliness Ability to: Keep the workplace neat and clean after the job is finished	10	Cutting / grinding/pasting area	Classroom/work place/Marble factory
F.5	Able to:	Knowledge of:			
Check status of electricity	Measure voltage and ensure correct voltage for safe operation of machine	Electricity supply Voltmeter Ability to: Use voltmeter Take safety precautions at electrical equipments	10	Single phase and 3 - phase Electrical connection	Marble factory / work place
F.6	Able to:	Knowledge of:			
Check the condition of the machine	Maintain the machine in perfect condition as	Machines working Ability to:	20	All machines	Workplace/marble factory

	recommended by the machine manufacturer for smooth operation	Assess the correct working of the machine Take prompt maintenance measures when required Follow routine maintenance procedures Keep and update maintenance register Stop the machine when it is not working properly			
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Module G: Ensure Safety Precautions

Objective of the Module: To enable the trainee to perform occupational health and safety procedures

Duration: Theory: 16 hours Practice: 64hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials required	Learning place
G.1 Wear proper clothing	Understanding of Importance of Safety ware Able to Use of safety ware	Knowledge of: Work safely Type of safety ware Ability to: Identify the work environment and select proper safety ware	10	Apron Gloves, Helmet Masks Shoes Goggles	Class room
G.2 Ensure safety of machines	Understanding of Importance of safety Able to Identify and select the proper safety steps for machine	Knowledge of: Safety of machines and its importance Ability to: Make routine checks of the machine	20	Safety sign boards	Class room

		<p>Follow the procedure for operation as described in manual of the machine</p> <p>Fix / ensure safe guards at the machine</p>			
<p>G.3</p> <p>Ensure proper drainage of waste water</p>	<p>Understanding of</p> <p>Drainage system</p> <p>Able to</p> <p>Perform steps for proper drainage of the waste water</p>	<p>Knowledge of:</p> <p>Waste water</p> <p>Channels for drainage</p> <p>Ability to:</p> <p>Make the drainage passage clear</p> <p>Routine cleaning of the drain channels</p>	20	Drain channels	Marble factory
<p>G.4</p> <p>Ensure safety of the workplace</p>	<p>Understanding of</p> <p>Work place safety</p> <p>Able to:</p> <p>Take necessary measure for safety at work place</p>	<p>Knowledge of:</p> <p>Safety code</p> <p>Ability to:</p> <p>Follow safety precautions at workplace</p>	20	Safety sign boards	Class room/workplace

		Keep the work place neat and clean Point out the hazard areas			
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ASSESSMENT TEMPLATE

Learning Units	Theory days/hr	Workplace days/hr	Recommended formative assessment	Recommended Methodology	Scheduled dates
A-1: Understanding of marble	20	80	To understand and differentiate between shades of marble	Q & A	At the end of module
A-2: Interact with the customer and understand demand:			How to satisfy customers with positive statements/ How to build trust and loyalty with the customer Describe how to take customer demand	Q & A	At the end of module
A-3: Take order:			Describe the steps while taking the customer's order for a product	Q & A Illustrative test	At the end of module
A-4: Select material:			Describe various points to be considered while selecting material for an order	Q & A Illustrative test	At the end of module
A-4: Prepare estimate:			Demonstrate the skill to prepare an estimate for given user requirements.	Q & A , Illustrative test	At the end of module

Module B – Types of Mosaic Materials

Learning Units	Theory days/hr	Workplace days/hr	Recommended formative assessment	Recommended Methodology	Scheduled dates
B-1: Arrange material:	20	80	Demonstrate the skill of selection of material for a particular order	Practical ,Direct Observation Q & A	At the end of module
B-2: Select tools/equipent:			List down the tools required for mosaic making Maintenance and safety precautions for the tools	Practical Direct Observation Q & A	At the end of module
B-3: Adjust cutting machine:			Demonstrate cutting machine adjustments and fixing of blades in the cutting machine. Maintenance and safety precautions for the machine	Practical, Direct Observation Q & A	At the end of module
B-4: Cut marble pieces:			Demonstrate how to cut mosaic pieces using a cutting machine Safety precautions for cutting stone pieces.	Practical Direct Observation Q & A	At the end of module

B-5: Tumbling of cut pieces:			Demonstrate the use of tumbler. Maintenance and safety precautions for the tumbler	Practical Direct Observation Q & A	At the end of module
B-6: Sorting/ storage:			Describe steps for sorting and storage of material.	Practical Direct Observation Q & A	At the end of module
B-7: Labeling of inventory			Describe the method to maintain proper inventory record	Q & A	At the end of module

Module C- Make Design / Drawing

Learning Units	Theory days/hr	Workplace days/hr	Recommended formative assessment	Recommended Methodology	Scheduled dates
C-1: Select tools/ equipment:	20	80	List down tools required for making design / drawing	Q & A	At the end of module
C-2: Select materials:			What are the factors for selecting a product	Q & A	At the end of module
C-3: Draw sketch			Demonstrate free hand sketching Demonstrate use of computer software for making a design	Practical	At the end of module
C-4: Take printout of sketch			Demonstrate the use of computer and printer for printing a design	Practical	At the end of module

Module D- Making Mosaic

Learning Units	Theory days/hr	Workplace days/hr	Recommended formative assessment	Recommended Methodology	Scheduled dates
D1: Arrange material	40	200	How to arrange the material required for a particular design	Q & A	At the end of module
D2: Select tools			List down tools required for mosaic making Write down the safety precautions for using these tools	Practical, Direct Observation, Q & A	At the end of module
D3: Place mesh on sketch			Demonstrate the ability to prepare a mosaic base by placing net and selected design over it.	Practical, Direct Observation, Q & A	At the end of module
D4: Paste pieces on the base			Pasting of pieces as per design on the base	Practical,	At the end of module

Module E: Grinding & Polishing

Learning Units	Theory days/hr	Workplace days/hr	Recommended formative assessment	Recommended Methodology	Scheduled dates
E.1 Perform grinding	20	80	Explain the procedure for grinding	Practical, Direct Observation	At the end of module
E.2 Perform fine grinding			Explain the procedure for fine grinding	Practical, Direct Observation, Q & A	At the end of module
E.3 Prepare chemical polish			Demonstrate how to prepare chemical polish What materials are required for polish	Practical, Direct Observation, Q & A	At the end of module
E.4 Apply polish on material			Demonstrate how to apply polish on the surface	Practical, Direct Observation, Q & A	At the end of module
E.5 Perform buffing on material			Demonstrate how to prepare the surface for buffing What materials are used in buffing	Practical, Direct Observation, Q & A	At the end of module

E.6 Quality check			Physically check the end product and ensure product quality compliance	Practical, direct observation, Q&A	At the end of module
E.7 Proper packaging and storing			Explain why and how to place material safely	Q & A Direct Observation	At the end of module

Module F: Maintain Tools and Equipment

Learning Units	Theory days/hr	Workplace days/hr	Recommended formative assessment	Recommended Methodology	Scheduled dates
F.1 Apply oil to machines.	16	64	Demonstrate how to oil the machine List of tools and equipment or safety precautions	Q & A Practical Direct Observation	At the end of module
F.2 Protect machines from dust			Demonstrate how to protect the machines from dust	Q & A Practical Direct Observation	At the end of module
F.3 Place tools properly			Demonstrate how to place tools in tool box List of tools and equipment	Q & A Practical Direct Observation	At the end of module
F.4 Clean workplace			. Describe why it is important to keep the work place clean	Q & A Practical Direct Observation	At the end of module
F.5 Check status of electricity.			Which instrument is used to check voltage Demonstrate how to check the voltage	Q & A Practical Direct Observation	At the end of module
F.6 Check the condition of the machine			Describe how to check the condition of machine	Q & A Practical Direct Observation	At the end of module

Module G: Ensure safety Precautions

Learning Units	Theory days/hr	Workplace days/hr	Recommended formative assessment	Recommended Methodology	Scheduled dates
G.1 Wear proper clothing	16	64	Identify the tools, equipment needed for safety What kind of clothes to be used	Practical, Direct Observation, Q & A	At the end of module
G.2 Ensure safety of the machines			what are the check list for the safety of the machine	Q & A	At the end of module
G.3 Proper drainage of waste water			Explain what will happen if the drainage is not clear List of tools and equipment cleaning of drainage	Illustrative test Q & A	At the end of module
G.4 Ensure safety of the workplace			Identify the safety signs Why the work place safety is important	Q & A Direct Observation MCQs	At the end of module

Supportive Notes

Assessment context:

Introduction and explanation about the marble mosaic making process will be in the class room where as practical will be in a marble factory or any other designated place.

Critical aspect:

The learner should be properly guided about the self safety and about care to be taken while operating machines.

Assessment condition:

Learner will have access to all tools related with marble mosaic making process.

Resources required for assessment:

Marble mosaic pieces in various colors, nippers, storage boxes, grinders, measuring scales, pencil, erasers, sharpeners, gloves, aprons, dust masks, safety goggles, chart papers for sketching, wooden/ marble base, glue, grouts.

List of tools and Equipments

S. No.	Name of item / equipment / tool
1	Sizing cutter
2	Mosaic cutter with multiple blades
3	Tumbler bowl
4	Nippers
5	Pliers/forceps
6	Scissors
7	Vernier calipers
8	Measuring tape
9	Scales
10	Bench grinder/hand grinder
11	Wrenches
12	Screw driver
13	Hammers
14	Computer
15	Printer / Plotter
16	AutoCAD / Corel Draw/ Photoshop Software
17	Table
18	Brushes
19	Polishing machine
20	Pasting pads/ molds/jigs
21	Safety goggles
22	Gloves

Contributions for Development of This Curriculum

DACUM Working Group

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