

MODEL CURRICULUM

WAX SETTER

SECTOR: GEMS & JEWELLERY

SUB-SECTOR: CAST AND DIAMONDS -SET JEWELLERY

OCCUPATION: WAX SETTING

REF ID: G&J/Q1701, V1.0

NSQF LEVEL: 3



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

GEM & JEWELLERY SECTOR SKILL COUNCIL OF INDIA

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: '**Wax Setter**' QP No. '**G&J/Q1701 NSQF Level 3**'

Date of Issuance: **October 15th, 2016**

Valid up to: **October 14th, 2018**

* Valid up to the next review date of the Qualification Pack

Premkumar Kothari

Mr. Premkumar Kothari
Chairman
(Gem & Jewellery Skill Council of India)

Wax Setter

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Wax Setter”, in the “Gems & Jewellery” Sector/Industry and aims at building the following key competencies amongst the learner.

Program Name	Wax Setter		
Qualification Pack Name & Reference ID.	G&J/Q1701, v1.0		
Version No.	1.0	Version Update Date	Not Applicable
Pre-requisites to Training	10 th Standard passed, preferably		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Set diamonds and gemstones in wax models: Setting different shapes and sizes of diamonds and gemstones into wax models for mass producing jewellery. • Coordinate with others: Encouraging artisan to work as a team and multitask and communicate with colleagues and respecting Intellectual Property Rights of company's products and designs to avoid infringement. • Maintain health and safety at workplace: Familiarising artisan towards potential hazards to make work environment safe for everyone. 		

This course encompasses 3 out of 3 National Occupational Standards (NOS) of “Wax Setter” Qualification Pack issued by “Gem & Jewellery Skill Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Set diamonds and gemstones in the wax models</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 122:00</p> <p>Corresponding NOS Code G&J/N1701</p>	<ul style="list-style-type: none"> To read a job sheet and identify raw materials required for job work. To know to match diamonds and gemstones. To know cleaning and checking of each wax piece. To identify types of defects and repair defects in wax pieces To select the required tools and equipment as per job work. To identify basic and advanced setting techniques. To know techniques to set diamonds and gemstones in wax pieces. 	<p>Mandatory - Workbench & Chair, Wax Injection Machine, Rubber Moulds, Canned Mould spray, Wooden Mandrel, Bulli Handle, Supari, Wax, Needle, Bowl, Cup Burr, Eye Glass, Soldering Iron & Different Gauge Copper Wires, Stone Scoop / Supadi, Velvet Tray, Packets, Wax Models of Jewellery Designs, Different Size Stones, Diamond Tweezers, Surgical Blades with Handle, Table Lamp, Flat Graver, Knife Graver, Wooden ring Rod, Round Burr, Hart Burr</p> <p>Optional – Opti-Visor</p>
2	<p>Coordinate with others</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 02:00</p> <p>Corresponding NOS Code G&J/N9901</p>	<ul style="list-style-type: none"> Learn how to coordinate with supervisor, colleagues and others Learn the importance of interaction and coordination for personal growth Respecting Intellectual Property Rights of company’s products and designs to avoid infringement 	
3	<p>Maintain health and safety at workplace</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 02:00</p>	<ul style="list-style-type: none"> Learn about safety procedures Learn about potential hazards in workplace Learn what to do in an emergency situation Learn to use the fire extinguisher by identifying the appropriate fire Learn how to comply with company safety rules and regulations 	<p>Mandatory – Eye Glass, Table Lamp, First aid Kit, Fire Extinguisher</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Corresponding NOS Code G&J/N9902		
	Total Duration Theory Duration 24:00 Practical Duration 126:00	Unique Equipment Required: Workbench & Chair, Wax Injection Machine, Rubber Moulds, Canned Mould spray, Wooden Mandrel, Bulli Handle, Supari, Wax, Needle, Bowl, Cup Burr, Eye Glass, Soldering Iron & Different Gauge Copper Wires, Stone Scoop / Supadi, Velvet Tray, Packets, Wax Models of Jewellery Designs, Different Size Stones, Diamond Tweezers, Surgical Blades with Handle, Table Lamp, Flat Graver, Knife Graver, Wooden ring Rod, Round Burr, Hart Burr, Opti-Visor, Eye Glass, Table Lamp, First aid Kit, Fire Extinguisher	

Grand Total Course Duration: **150 Hours, 0 Minutes**

(This curriculum has been approved by [Gem & Jewellery Skill Council of India](#))

Trainer Prerequisites for Job role: "Wax Setter" mapped to Qualification Pack: "G&J/Q1701, v1.0"

Sr. No.	Area	Details
1	Job Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack "G&J/Q1701", Version 1.0.
2	Personal Attributes	Aptitude for conducting training, and pre/post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	10th Standard passed
4a	Domain Certification	Certified for Job Role: <u>Wax Setter</u> mapped to QP: "G&J/Q1701, v1.0". Minimum accepted score as per SSC guidelines is 80% on the SSC prescribed online theory assessment test based on an industry validated question bank.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "SSC/1402". Minimum accepted score for the trainer is 80% as per SSC guidelines.
5	Experience	The minimum required experience of the trainer is 3 years in Wax Setting

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Wax Setter
Qualification Pack	G&J/Q1701, v1.0
Sector Skill Council	Gem & Jewellery Skill Council of India

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3	Individual assessment agencies will create theory question papers for candidates at every examination/training centre. (as per assessment criteria below)
4	Individual assessment agencies will create practical tests for skill evaluation for candidates at every examination/training centre. (as per assessment criteria below)
5	To pass the Qualification Pack, every candidate should score a minimum 50% of aggregate marks to successfully clear the assessment
6	In case of successfully passing only certain number of NOS's, the candidate is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

Assessment Outcomes	Assessment Criteria for Outcomes	Marks Allocation			
		Total Marks (30+120)	Out of	Theory	Skills Practical
1. G&J/N1701 Set diamond and stones in the wax models	PC1. Follow design specifications in terms of type of jewellery as well as number, weight and size of diamonds and gemstones required	110	5	1	4
	PC2. Follow and apply the working procedures desired for the type of waxes as per standard operating procedure		5	1	4
	PC3. Match the size of diamonds and gemstones received against the requirement mentioned in the job sheet		5	1	4
	PC4: Inspect all wax patterns for signs of defect or blemishes that will be transported into the metal cast jewellery		5	1	4
	PC5. Clean and smooth all wax patterns in preparation for setting the diamond and stones into the wax		5	1	4
	PC6. In case of wax pieces which are defective bring it to supervisors'		2	1	1
	PC7. Select tools, materials and equipment in accordance with the job specifications and type of setting		5	1	4
	PC8. Use the advanced techniques for setting		19	5	14
	PC9. Press the diamond and gemstones at the required levels using hand tools		5	1	4
	PC10. Use the specified soldering/locking technique required for the design of jewellery		5	1	4
	PC11. Finish the wax pieces by correcting the surface for defects		5	1	4
	PC12. Secure setting of diamonds and gemstones		5	1	4
	PC13. Provide finishing to wax pieces as per design requirement and laid down standards		5	1	4
	PC14. Handle diamonds and precious stones with care		1	0	1

	PC15. Minimise or avoid damage to diamonds and precious stones during setting process		2	1	1
	PC16. Maintain zero defect wax pieces in the process before setting		5	1	4
	PC17. Select right size of diamonds and gemstone for setting in the wax piece		5	1	4
	PC18. Deliver in time the product to tree-making and casting processes		1	0	1
	PC19. Set number of stones or carat per day against target given		5	2	3
	PC20. Rework as per QC suggestions on the defective wax pieces		1	0	1
	PC21. Return completed wax piece to supervisor		1	0	1
	PC22. Ensure timely delivery		2	0	2
	PC23. Maintain accurate level of the stones in the wax piece		5	1	4
	PC24. Produce number of Quality Control approved wax pieces' set		2	0	2
	PC25. Keep the work station, machine and tools clean		2	1	1
	PC26. Keep all the tools in an organized manner		2	0	2
	Sub Total		110	24	86
2. G&J/N9901 Coordinate with Others	PC1. Coordinate for receiving work instructions and raw materials from reporting supervisor	20	1	0	1
	PC2. Communicate to the reporting supervisor about process flow improvements, product defects received from previous process, repairs and maintenance of tools machinery as required		1	0	1
	PC3. Communicate to reporting supervisor about operation details and hazards		1	0	1
	PC4. Interact with supervisor regarding compliance of company policy and rules		2	0	2

	PC5. Coordinate with colleagues to share work as per workload		3	0	3
	PC6. Communicate and discuss work flow related difficulties in order to find solutions with mutual agreement		2	0	2
	PC7. Coordinate and receive feedback from quality control department		2	1	1
	PC8. Coordinate for putting team goals over individual goals		1	0	1
	PC9. Resolve conflicts by communicating with colleagues and other departments		2	0	2
	PC10. Communicate and discuss work, coordinate with colleagues regarding multitasking in other departments with requirements		3	1	2
	PC11. Adhere to nondisclosure policy of the company in all outside coordination		2	1	1
	Sub Total		20	3	17
3. G&J/N9902 Maintain health and safety at workplace	PC1. Identify and use appropriate protective clothing/ equipment for specific tasks and work	20	2	0	2
	PC2. Identify hazardous job activities in his/ her job and communicate the possible causes of risks or accidents in the workplace		1	0	1
	PC3. Carry out safe working practices while dealing with hazards to ensure safety of self and others		1	0	1
	PC4. Identify and avoid doing any tasks or activities in a bad working position		2	0	2
	PC5. Practice appropriate working postures to minimise occupational health related issues		2	1	1
	PC6. Use the appropriate fire extinguishers on different types of fire		1	0	1
	PC7. Demonstrate rescue techniques applied during fire hazard		2	0	2
	PC8. Demonstrate good housekeeping in order to prevent fire hazards		1	0	1

	PC9. Demonstrate the correct use of any fire extinguisher		2	0	2
	PC10. Administer appropriate first aid procedure to victims wherever required e.g. in case of bleeding, burns, choking, electric shock, etc.		1	0	1
	PC11. Respond promptly and appropriately to an accident situation or medical emergency		3	1	2
	PC12. Participate in emergency procedures such as raising alarm, safe evacuation, correct means of escape, correct assembly point, etc.		2	1	1
	Sub Total		20	3	17
	Grand Total	150	150	30	120
	Percentage Weightage:			20%	80%
	Minimum Pass% to qualify (aggregate):			50%	