

Model Curriculum

Wax Tree Maker

SECTOR: GEMS & JEWELLERY
SUB-SECTOR: CAST AND DIAMONDS-SET JEWELLERY
OCCUPATION: WAX MODEL MAKING
REF ID: G&J/Q2601, 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 Tree Maker' QP No. 'G&J/Q2601 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


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

Wax Tree Maker

CURRICULUM / SYLLABUS

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

Program Name	Wax Tree Maker		
Qualification Pack Name & Reference ID	G&J/Q2601, v1.0		
Version No.	1.0	Version Update Date	N.A
Pre-requisites to Training	10th standard passed, preferably		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Make the wax tree: Assemble wax replicas of jewellery components by soldering wax pieces on central wax sprue, in order to use it for mass production of jewellery piece through casting process • Respect and maintain IPR: Respecting Intellectual Property Rights of the company's products and designs. • Coordinate with others: Identify team work and level of communication with colleagues or clients. It determines the ability to work as a team member, share work and multi-task in order to achieve the required deliverables on schedule. • Maintain occupational health and safety: Make commitment towards reporting potential hazards, taking preventive measures to contain accidents in order to make the work environment safe for self and colleagues and maintaining a clean working environment. 		

This course encompasses 4 out of 4 National Occupational Standards (NOS) of “Wax Tree Maker” Qualification Pack issued by “Gem & Jewellery Skill Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Make the Wax Tree (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 120:00</p> <p>Corresponding NOS Code G&J/N2601</p>	<ul style="list-style-type: none"> To select appropriate rubber base and central sprue To select appropriate length of the sprue for the number of wax pieces To assemble wax pieces according to instructions and standard operating procedure in terms of sequence, angle and spacing of the wax pieces To ensure damage free output with minimal hazards To inspect all wax pieces, rubber base, nozzle and central sprue for imperfect surface finishing To solder wax piece to central sprue without damaging wax pieces To identify different types of wax and their properties, particularly, with respect to heat and pressure sensitivity To identify uses of different qualities of wax and its properties in terms of shrinkage To identify different types of central sprue and rubber base To identify potential work hazards, particularly, when using wax soldering machine and sharp tools 	<p>Mandatory – Soldering Iron / Soldering Pen; Weighing Balance; Wax Rod; Wax Pieces; Surgical Blade with Handle; Cleaning Solvent; Wax; Work Bench; Tree Making Rubber Base; Wax Models with Sprue; Copper Wire; Touch Up Wax; Stainless Steel Flask; Sprue Wax; Pen; Pencil; Eraser; Note Pad</p>
2	<p>Respect and maintain IPR</p> <p>Theory Duration (hh:mm) 01:00</p> <p>Practical Duration (hh:mm) 02:00</p> <p>Corresponding NOS Code G&J/N9901</p>	<ul style="list-style-type: none"> To prevent leak of new designs/ plans to competitors by reporting on time To be aware of any of company’s product, process or design patents To report IPR violations observed in the market, to supervisor or company heads To know the basics of IPR and patent laws 	<p>Computer or laptop attached to LCD projector; whiteboard; whiteboard markers; Pen; Pencil; Eraser; Note Pad</p>
3	<p>Coordinate with Others</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 02:00</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 	<p>Computer or laptop attached to LCD projector; whiteboard; whiteboard markers; Pen; Pencil; Eraser; Note Pad</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Corresponding NOS Code G&J/N9902		
4	Maintain occupational health and safety Theory Duration (hh:mm) 01:00 Practical Duration (hh:mm) 02:00 Corresponding NOS Code G&J/N9905	<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 	First aid kit; fire extinguisher; emergency plan outline; Pen; Pencil; Eraser; Note Pad
	Total Duration 150:00 Theory Duration 24:00 Practical Duration 126:00	Unique Equipment Required: Soldering Iron / Soldering Pen; Weighing Balance; Wax Rod; Wax Pieces; Surgical Blade with Handle; Cleaning Solvent; Wax; Work Bench; Tree Making Rubber Base; Wax Models with Sprue; Copper Wire; Touch Up Wax; Stainless Steel Flask; Sprue Wax, First aid kit; fire extinguisher; emergency plan outline; Pen; Pencil; Eraser; Note Pad	

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

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

Trainer Prerequisites for Job role: "Wax Tree Maker" mapped to Qualification Pack: "G&J/Q2601, 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/Q2601", 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	Graduate, preferably
4a	Domain Certification	Certified for Job Role: <u>Wax Tree Maker</u> mapped to QP: "G&J/Q2601, 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	Minimum 3 years of experience in Wax Tree Making

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Wax Tree Maker
Qualification Pack	G&J/Q2601, 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 NOSs, the candidate is eligible to take subsequent assessment on the balance NOSs to pass the Qualification Pack.

Assessment outcomes	Assessment Criteria for outcomes	Marks Allocation			
		Total Marks (80+20)	Out Of	Theory	Skills Practical
1. G&J/N2601 Make the wax tree	PC1. Select appropriate rubber base and central sprue	75	8	0	8
	PC2. Select appropriate length of the sprue for the number of wax pieces		10	2	8
	PC3. Assemble wax pieces according to instructions and standard operating procedure in terms of sequence, angle and spacing of the wax pieces		13	3	10
	PC4. Timely deliver wax pieces to next process		5	0	5
	PC5. Produce number of wax tree per day as per target given		5	0	5
	PC6. Ensure damage free output with minimal hazards		5	0	5
	PC7. Inspect all wax pieces, rubber base, nozzle and central sprue for imperfect surface finishing		10	2	8
	PC8. Solder wax piece to central sprue without damaging wax pieces		13	3	10
	PC9. Produce wax tree is quality okayed		6	0	6
	Total		75	10	65
2. G&J/N9901 Respect and maintain IPR	PC1. Be able to spot plagiarism and report	9	3	2	1
	PC2. Be aware of patents and IPR		4	1	3
	PC3. Not be involved in IPR violations		2	1	1
	Total		9	4	5
3. G&J/N9902 Coordinate with others	PC1. Understand the work output requirements	8	2	1	1
	PC2. Comply with company policy and rule		1	0	1
	PC3. Deliver quality work on time as required by reporting any anticipated reasons for delays		1	0	1
	PC4. Put team over individual goals		1	1	0
	PC5. Be able to resolve conflicts		1	0	1
	PC6. Learn how to multi-task relevant activities		2	1	1
	Total		8	3	5
4. G&J/N9905 Maintain occupational	PC1. Spot and report potential hazards on time	8	2	1	1
	PC2. Follow company policy and rules regarding use of hazardous materials		2	0	2

health and safety	PC3. Attend and actively participate in the health and safety campaigns organised by the company		2	1	1
	PC4. Use or wear safety gear as per the rules of the company		2	1	1
	Sub Total		8	3	5
	Grand Total		100	100	20
	Percentage Weightage:			20%	80%
	<u>Minimum Pass % to qualify (aggregate):</u>			50%	