



Australian Government

Department of Education, Employment and Workplace Relations

MEM19053A Create complex findings and mechanisms for jewellery items

Release: 1

MEM19053A Create complex findings and mechanisms for jewellery items

Modification History

New unit

Unit Descriptor

This unit of competency covers the skills and knowledge required to design and create jewellery, which includes complex findings and mechanisms. It includes assessing the application of the design brief in the final outcome.

Application of the Unit

This unit applies to the production of functional and decorative jewellery, by a jeweller, that incorporates complex findings and mechanisms. Applications may include catches, clips, fittings and spring-loaded mechanisms that require and employ complex production techniques.

Band A
Unit Weight 4

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

MEM19017B	Fabricate jewellery items
MEM19005B	Produce three-dimensional precision items

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

1	Design and develop a concept from a design brief	1.1	Identify and implement occupational health and safety (OHS) and environmental requirements for carrying out the work and for the work area
		1.2	Determine requirements from the design brief, research and discussions with appropriate personnel, if required
		1.3	Evaluate relevant research information, references and resources to the design process
		1.4	Record concept development through a range of drawings, notations and design options
		1.5	Prepare production plans for selected design solution and refine design, as appropriate.
		1.6	Produce a model or maquette of the selected design
		1.7	Determine and obtain resources and equipment to undertake the task
2	Produce complex findings and mechanisms	2.1	Implement OHS requirements for carrying out the work
		2.2	Determine appropriate jewellery techniques and equipment through testing and experimenting, if required
		2.3	Select and apply jewellery techniques and processes to produce the item
		2.4	Determine finding and mechanism most suitable for the design and functionality of the jewellery item
		2.5	Produce and attach finding and mechanism to the item

- 2.6 Apply relevant surface finishing techniques to the item and prepare for presentation to the client
 - 2.7 Apply materials and process knowledge to identify and address production problems or inconsistencies
- 3 Evaluate object for meeting the design brief
 - 3.1 Implement OHS requirements for finishing the work
 - 3.2 Test object for function against the design brief, if required
 - 3.3 Evaluate and document design processes

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- researching information
- sketching and interpreting drawings
- generating ideas and concepts
- working with a wide range of materials and techniques
- using relevant tools and equipment for producing objects
- preparing and maintaining jewellery tools and equipment (e.g. hammers, stakes, files and vices)
- working effectively with others
- communicating effectively

Required knowledge

Required knowledge includes:

- concept development techniques
- purpose, function and maintenance of jewellery equipment
- techniques/manufacturing methods for jewellery production
- function and application of jewellery findings and mechanisms
- soldering and fusing techniques for jewellery
- binding and locating techniques

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	A person who demonstrates competency in this unit must be able to produce jewellery items, which include complex findings and mechanisms, according to a design brief.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Assessors must be satisfied that the candidate can competently and consistently:</p> <ul style="list-style-type: none"> • implement OHS workplace procedures and practices, including the use of risk control measures • demonstrate the creation and production of jewellery items on more than one occasion and in different contexts. This includes: <ul style="list-style-type: none"> • development of a sketchbook of drawings and notations that record: <ul style="list-style-type: none"> • ideas and design options generated • concept development • relevant research • plans for production solutions • production of tests and experiments, where appropriate • production of jewellery items to specification, which include complex findings and mechanisms, that function appropriately on application.
Context of and specific resources for assessment	<ul style="list-style-type: none"> • Assessment may occur on the job or in an appropriately simulated environment. Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices. • Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability. • Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.
Method of assessment	<ul style="list-style-type: none"> • Assessment must satisfy the endorsed Assessment Guidelines of the MEM05 Metal and Engineering

	<p>Training Package.</p> <ul style="list-style-type: none"> • Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge. • Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application. • Assessment may be applied under project-related conditions (real or simulated) and require evidence of process. • Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances. • Assessment may be in conjunction with assessment of other units of competency where required.
Guidance information for assessment	Assessment processes and techniques must be culturally appropriate and appropriate to the language and literacy capacity of the candidate and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Appropriate personnel	<p>Appropriate personnel may include:</p> <ul style="list-style-type: none"> • supervisor • manager • trainer • mentor • teacher • team member • client
Complex findings and mechanisms	<p>Complex findings and mechanisms may include:</p> <ul style="list-style-type: none"> • catches for bracelets • catches for necklets

	<ul style="list-style-type: none"> • removable pearl enhancers or pendants • sliding brooch fittings and safety locks • threaded or hinged earring clips • spring-loaded mechanisms • multi-functional jewellery items
Jewellery production	<p>Jewellery production may include:</p> <ul style="list-style-type: none"> • maquette production • soldering • fusing • crimping • folding • forging • hinge making • fabricating • forming
Surface finishing techniques	<p>Surface finishing techniques may include:</p> <ul style="list-style-type: none"> • electroplating • planishing • patination • polishing • burnishing • heat treating
OHS requirements	<p>OHS requirements may include:</p> <ul style="list-style-type: none"> • legislation • protective equipment • material safety management systems • hazardous substances and dangerous goods code • local safe operation procedures • awards provisions
Environmental requirements	<p>Environmental requirements may relate to:</p> <ul style="list-style-type: none"> • liquid waste • solid waste • gas, fume, vapour, smoke emissions, including fugitive emissions, and dust • excessive energy and water use • excessive noise

Enterprise procedures	Enterprise procedures may include: <ul style="list-style-type: none">• the use of tools and equipment• instructions, including job sheets, cutting lists, plans, drawings and designs• reporting and communication• manufacturer specifications• operational procedures
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Unit Sector(s)

Jewellery

Custom Content Section

Not applicable.