



Australian Government

MEM19004 Handle and examine gemstone materials

Release: 1

MEM19004 Handle and examine gemstone materials

Modification History

Release 1. Supersedes and is equivalent to MEM19004B Handle and examine gemstone materials

Application

This unit of competency defines the skills and knowledge required to safely handle a variety of gem materials and examine gems to determine physical and chemical properties.

Emphasis is placed on knowledge of the principles of gemmology, gemstone and diamond nomenclature, gemstone processing enhancement and repair, and appreciation of gemstone qualities.

This unit applies to an individual working autonomously in a jewellery manufacturing environment and guided by strict rules of procedure.

Note: The competencies covered by this unit do not include the requirement to perform accurate and positive gemstone identifications.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: A

Unit Weight: 6

Pre-requisite Unit

MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM19003	Handle gem materials

Competency Field

Jewellery and horological

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
---	---

- | | | | |
|---|----------------------|-----|---|
| 1 | Determine job | 1.1 | Follow standard operating procedures (SOPs) |
|---|----------------------|-----|---|

Elements describe the essential outcomes.

requirements

Performance criteria describe the performance needed to demonstrate achievement of the element.

- | | | | |
|---|---|-----|---|
| | | 1.2 | Comply with work health and safety (WHS) requirements at all times |
| | | 1.3 | Use appropriate personal protective equipment (PPE) in accordance with SOPs |
| | | 1.4 | Identify job requirements from specifications, job sheets or work instructions |
| 2 | Perform gemstone examinations and handle gem materials | 2.1 | Select examination methods and equipment appropriate to the gem material and examination requirements |
| | | 2.2 | Prepare equipment and specimen |
| | | 2.3 | Apply handling measures appropriate to gem material |
| | | 2.4 | Identify the physical and optical properties of gem materials |
| | | 2.5 | Record and verify examination results |
| | | 2.6 | Prepare examination results and record conclusions with supportive evidence |

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Gem materials include one (1) or more of the following:

- natural (including diamonds)
- composite
- synthetic

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- imitation
- treated

Equipment includes one (1) or more of the following:

- 10x loupe tweezers
- refractometer
- UV light
- microscope
- thermal probes

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM19004B Handle and examine gemstone materials

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>