



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **MEM22006A Source and estimate materials**

**Release: 1**

## MEM22006A Source and estimate materials

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers working with others to define material requirements, estimate material required and identify appropriate sources to access the material.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to sourcing and estimating materials for an engineering process, project or service. Activities include applying material requirements analysis and sourced materials; estimating quantities to satisfy documented functional specifications, client agreements and contracts, material performance, manufacturing techniques; procuring materials/resources, maintaining documentation of purchasing, receipt and inspection; ensuring adequate documentation of procedures, materials preparation procedures and documentation of materials characteristics and limitations on use.</p> <p>This unit only has application in qualifications that are not points based.</p> <p><b>Band: 0</b></p> <p><b>Unit Weight: 0</b></p>
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### Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

<b>Prerequisite units</b>		
<b>Path 1</b>	MEM16006A	Organise and communicate information

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## 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.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify the material requirements and sources	1.1. Interpret technical information. 1.2. Analyse material requirements in consultation with interested parties. 1.3. Compare options for materials against technical requirements. 1.4. Identify costs of materials.
2. Prepare materials estimates	2.1. Confirm the currency and accuracy of the figures and rates to be used in calculations. 2.2. Calculate estimates in accordance with specification requirements and procedures. 2.3. Document and present estimates that meet the initial requirements.
3. Procure materials/resources	3.1. Order materials and components. 3.2. Maintain ordering and purchasing documentation. 3.3. Receive and inspect materials/resources.
4. Prepare materials/components/systems for use in the project/operation	4.1. Identify methods for the preparation of materials. 4.2. Schedule the delivery and preparation of materials. 4.3. Prepare certification reports on the characteristics and uses of materials Ensure materials usage procedures comply with legislation, codes and national standards. 4.4. Accept or reject materials.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

Look for evidence that confirms skills in:

- obtaining all relevant project documentation
- obtaining information on materials

## REQUIRED SKILLS AND KNOWLEDGE

- assessing and acting on environmental effects of materials and waste
- consulting interested parties with respect to material requirements
- identifying materials information relevant to project
- specifying materials appropriate to the technical requirements
- selecting materials with regard to project requirements and information available
- identifying all relevant costs
- confirming the currency and accuracy of costs and material availability
- calculating and documenting material estimates
- ordering materials and components
- documenting orders and purchases
- receiving materials/services
- inspecting/sampling
- materials are prepared ready for use
- scheduling material delivery and preparation
- preparing material certification reports
- testing supplied materials for conformance to specifications
- accepting/rejecting materials based on test results

## Required knowledge

Look for evidence that confirms knowledge of:

- the material requirements and specifications
- sources of information
- issues of sustainability and environmental impact
- strategies to ensure that interested parties are consulted and satisfied
- the functional requirements of the materials to be used in the project/operation
- the reasons for selecting the chosen materials
- costs and costing methods
- materials requirements in relation to the contract specification.
- procedures for estimating material quantities
- procedures for documenting material estimates
- procedures for ordering materials and components
- the authority responsible for authorising orders/purchases
- procedures for maintaining documentation of orders and purchases
- importance of receipt and inspection of materials/resources
- methods of preparing materials for use
- the material delivery requirements of the project/operation
- the characteristics and uses of materials
- material certification requirements
- procedures for preparing material certification reports
- material tests and testing procedures

**REQUIRED SKILLS AND KNOWLEDGE**

- procedures for accepting/rejecting materials
- reasons for selecting material tests and testing procedures

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<p>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.</p>	
<p><b>Overview of assessment</b></p>	<p>A person who demonstrates competency in this unit must be source and estimate materials. Competency in this unit cannot be claimed until all prerequisites have been satisfied.</p>
<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></p>	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
<p><b>Context of and specific resources for assessment</b></p>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with sourcing and estimating materials or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<p><b>Method of assessment</b></p>	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>

**EVIDENCE GUIDE**

<b>Guidance information for assessment</b>	
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**Range Statement****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.

**Estimates**

<b>Estimates</b>	Identifying source of appropriate materials and estimation of the quantities required and/or confirmation of the sources of materials and finalising the estimations
<b>Document</b>	Quantity estimates, schedules, test certification and other documentation will be generated during this process
<b>Legislation, codes and national standards</b>	May use relevant legislation, regulation, codes and national standards relevant to the workplace.

**Document****Legislation, codes and national standards****Unit Sector(s)**

<b>Unit sector</b>	
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**Co-requisite units**

<b>Co-requisite units</b>	



<b>Co-requisite units</b>		

## Competency field

<b>Competency field</b>	Management and organisation
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