



**Australian Government**

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

# **LMFKB4005A Research and recommend materials, components and finishes for bathroom designs**

Release: 1

## LMFKB4005A Research and recommend materials, components and finishes for bathroom designs

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the skills and knowledge required to research and analyse materials, components and finishes and make recommendations to meet the requirements of a bathroom design brief. This unit includes evaluation of options and presentation of design information to client.
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### Application of the Unit

<b>Application of the unit</b>	This unit of competency is applied to work conducted by bathroom designers in the specification of materials, components and finishes as part of the design process.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>	

### Employability Skills Information

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

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify requirements of bathroom design brief	1.1. <b>Design brief</b> is reviewed to determine required outcomes for bathroom design 1.2. <b>Parameters</b> for the project are assessed and confirmed 1.3. <b>Resources</b> are selected appropriate to work requirements and checked for operational effectiveness
2. Identify types and features of bathroom materials, components and finishes	2.1. <b>Materials</b> used in <b>bathroom applications</b> are examined and suitability to meet design brief determined 2.2. <b>Components</b> used in bathrooms are examined and suitability to meet design brief determined 2.3. <b>Finishes</b> used in bathroom applications are examined and suitability to meet design brief determined 2.4. New material technologies are researched and suitability to meet design brief determined
3. Identify suitable options to meet design brief	3.1. Materials, components and finishes that meet client brief requirements are identified 3.2. Options are selected for further analysis and design development
4. Evaluate the functional and aesthetic characteristics of selection	4.1. <b>Elements and principles of design</b> are used to examine the appropriateness of materials, components and finishes for client brief requirements 4.2. Application methods and available expertise for the desired effect are assessed 4.3. Costs of materials, components and finishes are assessed and compared 4.4. Environmental and sustainability considerations for materials, components and finishes are examined 4.5. Waterproof quality of bathroom materials, components and finishes are examined 4.6. Aesthetic qualities are assessed with regard to desired effect 4.7. Longevity and restorability of materials, components and finishes are researched 4.8. <b>Hazards</b> associated with the use and application of materials, components and finishes are researched 4.9. Quality of materials, components and finishes are assessed
5. Select and	5.1. Materials, components and finishes are selected to

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
recommend materials, components and finishes	meet client brief requirements 5.2. Presentation of research information is made, highlighting the findings and rationale for selection 5.3. A range of <i>presentation strategies</i> is included in presentation
6. Document recommendations	6.1. Specifications of selection are documented 6.2. Samples are stored for further use 6.3. Selection is integrated into design drawings and plans

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

- Accessing and interpreting workplace information
- Applying safety procedures
- Applying research techniques
- Collecting, organising and understanding information related to work briefs, basic plans and safety procedures
- Communicating ideas and information
- Accurately recording and maintaining information
- Using computer operations for internet access and searches
- Analysing performance characteristics
- Comparing findings
- Communicating with suppliers
- Maintaining accurate records
- Clarifying and checking task-related information
- Carrying out work according to occupational health and safety (OHS) practices
- Recognising and responding to circumstances outside instructions or personal competence
- Using mathematical ideas and techniques to correctly complete measurements, calculate area and volume, and estimate other material requirements
- Maintaining current knowledge of materials and components used in bathrooms
- Using the workplace technology related to the use of tools including calculators, measuring and recording devices

#### Required knowledge

- Features of bathroom materials and components
- State or territory OHS legislation, regulations, standards and codes of practice relevant to bathrooms designs
- Information resources
- Elements and principles of design
- Research techniques
- Effects of finishes and finishing techniques
- Procedures for the recording, reporting and maintenance of workplace records and information
- Appropriate mathematical procedures for estimation and measurement
- Environmental protection requirements
- Established communication channels and protocols
- Problem identification and resolution techniques



## 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>Assessment processes and techniques must be culturally appropriate and appropriate to the language, literacy and numeracy capacity of the candidate and the work being performed.</p>
<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></p>	<ul style="list-style-type: none"> <li>• Interpret and analyse bathroom design brief</li> <li>• Research information on bathroom materials, components and finishes</li> <li>• Select and specify bathroom materials, components and finishes</li> </ul>
<p><b>Context of and specific resources for assessment</b></p>	<ul style="list-style-type: none"> <li>• The application of competency is to be assessed in the workplace or realistically simulated workplace</li> <li>• Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints</li> <li>• Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context</li> <li>• Assessment is to comply with relevant regulatory or Australian Standards requirements</li> <li>• The following resources should be made available:                             <ul style="list-style-type: none"> <li>• workplace location or simulated workplace</li> <li>• work related information resources</li> </ul> </li> </ul>
<p><b>Method of assessment</b></p>	<ul style="list-style-type: none"> <li>• Assessment must satisfy the endorsed assessment guidelines of the Furnishing Industry Training Package</li> <li>• 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</li> <li>• Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure correct interpretation and application</li> <li>• Assessment may be applied under project related conditions (real or simulated) and require evidence of process</li> <li>• Assessment must confirm a reasonable inference that</li> </ul>



<b>EVIDENCE GUIDE</b>	
	<p>competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances</p> <ul style="list-style-type: none"><li>• Assessment may be in conjunction with assessment of other units of competency</li></ul>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. <b>Italicised</b> 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.</p>	
<b>Design brief</b>	<p>Design brief may include:</p> <ul style="list-style-type: none"> <li>• client needs and objectives</li> <li>• milestones</li> <li>• functional requirements</li> <li>• budget, timelines and consultation requirements</li> <li>• colour requirements</li> </ul>
<b>Parameters</b>	<p>Parameters may include:</p> <ul style="list-style-type: none"> <li>• budget range</li> <li>• colour range</li> <li>• timelines</li> <li>• space dimensions</li> <li>• structural characteristics</li> <li>• services</li> </ul>
<b>Resources</b>	<p>Resources may include:</p> <ul style="list-style-type: none"> <li>• computers, computer software, design software, computer-aided drafting (CAD) software, colour boards, storyboards, swatches, Pantone Matching System (PMS), journals (directions magazines), artistic equipment and products and model making equipment</li> </ul>
<b>Materials</b>	<p>Materials may include:</p> <ul style="list-style-type: none"> <li>• particleboard</li> <li>• high moisture resistant particleboard</li> <li>• plywood</li> <li>• high pressure laminate</li> <li>• low pressure laminate</li> <li>• vinyl/foil wrap</li> <li>• resin-based solid surfaces</li> <li>• solid stone</li> <li>• reconstituted stone</li> <li>• timber</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"><li>• timber veneer</li><li>• paint</li><li>• glass</li><li>• stainless steel</li><li>• tiles</li></ul>

<b>RANGE STATEMENT</b>	
<b>Bathrooms applications</b>	<p>Bathroom applications may include:</p> <ul style="list-style-type: none"> <li>• bench tops</li> <li>• splashbacks</li> <li>• drawers</li> <li>• cabinets</li> <li>• kickboards/plinths/legs</li> <li>• floors</li> <li>• walls</li> <li>• shelving</li> <li>• showers</li> <li>• baths/spas</li> </ul>
<b>Components</b>	<p>Components may include:</p> <ul style="list-style-type: none"> <li>• taps</li> <li>• handles</li> <li>• runners</li> <li>• hinges</li> <li>• rails</li> <li>• sinks</li> <li>• baskets</li> <li>• toilets</li> <li>• bidets</li> </ul>
<b>Finishes</b>	<p>Finishes may include:</p> <ul style="list-style-type: none"> <li>• edging and edge profiles</li> <li>• paints, waxes, lacquers, stains, pigments, oils, plastic coatings, veneers, ceramics, stone, glass, textiles and other textures</li> <li>• waterproofing finishes</li> </ul>
<b>Elements and principles of design</b>	<p>Elements and principles of design may include:</p> <ul style="list-style-type: none"> <li>• line, shape, form, texture and colour</li> <li>• balance, proportion (symmetry, asymmetry), harmony, contrast, pattern, movement, rhythm, unity, style, focus, scale, emphasis, proximity, alignment, space, ergonomics, arrangement, aesthetic relations, tension and development methods</li> </ul>
<b>Hazards</b>	<p>Hazards may include:</p> <ul style="list-style-type: none"> <li>• toxins and gases released by some finishes</li> <li>• glues and materials which may be harmful to</li> </ul>

<b>RANGE STATEMENT</b>	
	people if not used correctly
<b>Presentation strategies</b>	Presentation strategies may include: <ul style="list-style-type: none"> <li>• materials and concept boards</li> <li>• swatches and samples</li> <li>• quotes</li> <li>• drawings</li> <li>• models</li> <li>• plans</li> </ul>

### Unit Sector(s)

<b>Unit sector</b>	Kitchens and bathrooms
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### Competency field

<b>Competency field</b>	
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### Co-requisite units

<b>Co-requisite units</b>		