

UNIT CODE	NAT11429005
UNIT TITLE	Assess and recommend healthy building materials
APPLICATION	<p>This unit describes the performance outcomes, skills and knowledge required to rate building materials using the Building Material Rating Tool.</p> <p>It requires knowledge of common construction systems, life cycle analysis, and suppliers of suitable building materials. It requires the ability to assess materials using the Building Material Rating Tool for their impact on health, indoor air quality, electro climate and vapour control.</p> <p>This unit applies to building biologists, builders, architects, draftspersons, building designers and owner/builders who, as part of their occupation or role, are engaged in new construction and renovations.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
COMPETENCY FIELD	050999 Environmental Studies, nec
ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes of the unit	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Review materials, sealants and finishes used in the construction of a home	<p>1.1 Record the age and architectural style of the home</p> <p>1.2 Review materials used for cladding, window frames, internal walls and doors</p> <p>1.3 Review materials used in foundations, floor coverings, roof, and sarking</p> <p>1.4 Document insulation types, sealants and finishes applied during construction</p>
2. Analyse building materials using the building material rating tool	<p>2.1 Analyse the impact of building materials on indoor air quality</p> <p>2.2 Determine building materials that influence electromagnetic fields in the built environment</p> <p>2.3 Report on the hygroscopic properties of building materials</p> <p>2.4 Review Safety Data Sheets for toxicants present in building materials</p> <p>2.5 Evaluate building materials that may present radioactive risks</p> <p>2.6 Summarise health impacts linked to hazards in building materials</p> <p>2.7 Conduct a life cycle analysis for selected building materials</p> <p>2.8 Rate each material used in the home's construction using the building material rating tool to generate quantitative scores</p>

<p>3. Select materials that align with building biology principles</p>	<p>3.1 Select suitable materials for the building envelope based on building biology principles and rating tool scores</p> <p>3.2 Select building materials for wet areas, kitchen, living areas and bedrooms aligned with building biology principles</p> <p>3.3 Compile a list of suppliers for recommended building materials</p> <p>3.4 Prepare a report documenting assessment findings and recommendations</p>		
<p>FOUNDATION SKILLS</p> <p>Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.</p>			
<p>UNIT MAPPING INFORMATION</p>	<p>Code and Title Current Version</p>	<p>Code and Title Previous Version</p>	<p>Comments</p>
	<p>NAT11429005 Assess and recommend healthy building materials</p>	<p>NAT10913004 Apply building biology principles to assess and recommend building materials</p>	<p>Equivalent unit</p> <p>Minor amendments to terminology</p> <p>Change title to 'Assess and recommend healthy building materials'</p>
<p>TITLE</p>	<p>Assessment Requirements for NAT11429005 Assess and recommend healthy building materials</p>		
<p>PERFORMANCE EVIDENCE</p>	<p>The learner must show evidence of the ability to complete tasks outlined in the elements and performance criteria of this unit, manage tasks and contingencies in the context of the role of a Building Biologist. Evidence must be provided that the learner has independently completed assessments of building materials for a residential property reflective of workplace conditions and completed the following tasks:</p> <ul style="list-style-type: none"> • Review and document building materials, sealants and finishes used in the building envelope and internal fit out, including the age, architectural style and construction type • Complete a comprehensive building material audit using the Building Material Rating Tool, scoring each material against health, indoor air quality, electroclimate, hygroscopic, and radioactive categories with explanation of scoring decisions • Analyse and report on the life cycle analysis of three different building materials in the property, considering embodied energy, sustainability, manufacture, maintenance, disposal and recycling pathways • Propose alternative, healthier materials for materials with low ratings, justifying selection and recommendations tailored to property needs • Compile a list of suppliers for recommended healthier building materials including contact details 		

	<ul style="list-style-type: none"> • Produce a written report incorporating photographs, research findings, supplier lists and references
<p>KNOWLEDGE EVIDENCE</p>	<p>The learner must be able to demonstrate knowledge required to effectively do the tasks outlined in the elements and performance criteria of this unit, manage the tasks and contingencies in the context of working as a Building Biologist. This includes knowledge of:</p> <ul style="list-style-type: none"> • Common construction systems used in Australian homes • Building materials used in the building envelope (roof, floor, exterior doors and windows and exterior walls), living areas, bedrooms and wet areas • Building materials containing toxicants that impact indoor air quality • Concepts of vapour barriers, hygroscopicity, diffusion and breathing properties of materials as they related to material selection and application • Building materials that influence the electroclimate • Radioactive nuclides present in building materials • Health impacts of exposure to hazardous building materials • Fundamentals of life cycle analysis and embodied energy assessment methodologies applicable to building materials • Building Biology principles related to building material selection • Reliable suppliers of suitable building materials
<p>ASSESSMENT CONDITIONS</p>	<p>Assessment must be conducted in an environment that reflects current industry practice and workplace conditions. Candidates must have access to:</p> <ul style="list-style-type: none"> • A residential building may include the learner's home or client's property that replicates workplace conditions • Building Material Rating Tool template <p>Assessor Requirements</p> <p>Assessors must satisfy the requirements outlined in the Standards for Registered Training Organisations (RTOs) 2025 or successor standards and demonstrate current industry skills and knowledge as a Building Biologist, with a minimum of three years' relevant industry experience.</p>