

817 Insulation and Building Treatments, Building Construction, Defects and Interfaces

Level:	3
Value for TQT:	190
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>
1 Interpret the given design information relating to the work and resources and identify its suitability, taking into consideration building type, defects and detailing and recording and reporting issues in regard to building construction, defects and interfaces.	1.1 Interpret and extract relevant information from: <ul style="list-style-type: none"> • drawings • specifications • schedules • method statements • risk assessments • manufacturers' information • data sheets
	1.2 Comply with information and/or instructions derived from risk assessments and method statements.
	1.3 Explain the importance of organisational procedures to solve problems and why it is important to follow them.
	1.4 Describe different types of information, their source, accuracy, completeness and how they are interpreted in relation to: <ul style="list-style-type: none"> • types of construction • energy efficiency measures • building treatments • drawings • method statements • design • standards • manufacturers' information • data sheets • official guidance • current legislation and regulations governing buildings

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Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>
<p>2 Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices as stated for each measure to be installed.</p>	<p>2.1 Describe the relevant, current legislation, standards and official guidance and how they are applied.</p>
	<p>2.2 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:</p> <ul style="list-style-type: none"> • fires • spillages • injuries • emergencies relating to occupational activities • identification of and reporting of asbestos containing materials
	<p>2.3 Describe how to report risks and hazards identified by the following:</p> <ul style="list-style-type: none"> • risk assessment • personal assessment • methods of work • safe systems of work • manufacturers' technical information • data sheets • statutory regulations • official guidance • Control of Substances Hazardous to Health (COSHH)
	<p>2.4 Explain the accident reporting procedures and who is responsible for making reports.</p>

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Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>
3 Select the required quantity and quality of resources for the methods of work in relation to building construction, defects and interfaces.	3.1 Select resources associated with own work.
	3.2 Check the suitability, compatibility and characteristics of the materials, components and finishes and determine if they are moisture open or moisture closed and their impact on the building.
	3.3 Record and report issues or defects.
	3.4 Describe why the characteristics, compatibility, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be rectified.
	3.5 Describe how the resources should be used and how problems associated with the resources are reported.
	3.6 Describe how to confirm that the resources and materials conform to the specification.
	3.7 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
	3.8 Describe how to identify the hazards associated with the resources and methods of work and how they are overcome.
4 Minimise the risk of damage to the work and surrounding area in relation to building construction, defects and interfaces.	4.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	4.2 Maintain a safe, clear and tidy work area.
	4.3 Explain why it is important to maintain a safe, clear and tidy work area.
	4.4 Dispose of waste in accordance with current legislation.
	4.5 Describe how to protect work and its surrounding area from damage by general workplace activities, other occupations and adverse weather conditions and how to minimise damage to existing building fabric.
	4.6 Explain the importance of protecting the work and its surrounding area against the risk of damage.

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Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>
<p>5 Comply with the given contract information when identifying common building construction, defects and interfaces to the required specification.</p>	<p>5.1 Comply with the given contract information to carry out the work efficiently to the required specification.</p>
	<p>5.2 Demonstrate work skills to carry out external and internal pre installation checks in regard to building construction, defects and material interfaces:</p>
	<p>5.3 Identify common building defects including but not limited to:</p> <ul style="list-style-type: none"> • salt contamination • causes of dampness • rain penetration • rising damp • internal moisture vapour • damaged services • structural defects
	<p>5.4 Describe how the methods of work to meet the specification, are carried out and how problems are identified and reported by the application of knowledge for safe, healthy and environmental work practices, procedures and skills relating to the method and area of work relating to the following:</p> <ul style="list-style-type: none"> • the suitability, compatibility and characteristics of the materials, components and finishes, and determine if they are moisture open or moisture closed, their impact on the building and their appropriateness to the design and physical application • how to record and report issues or defects with the materials, components and finishes • why it is important to carry out external and internal pre-installation checks • how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include but not limited to: <ul style="list-style-type: none"> - property suitability - structural integrity - dampness - decay - exposure ratings - vents and ventilation - services (gas, electric, water, media cables) • why it is important to ensure that all necessary repairs are completed prior to installation • the implications that types of construction and materials have on the introduction of energy

	<p>efficiency measures and other forms of building treatments with specific reference to:</p> <ul style="list-style-type: none">- roofs- walls including internal and external finishes- floors- windows and doors- chimneys and fireplaces- flues and combustion ventilation- fabric interfaces- existing services <ul style="list-style-type: none">• the importance of the correct sequencing of installation of energy efficiency measures and building treatments• how performance varies in different construction types, locations and through the impact of habitation and usage• how alterations, additions and extensions to the original construction can affect the performance of the building• how to identify common building defects including but not limited to: salt contamination and causes of dampness, rain penetration, rising damp, internal moisture vapour, damaged services, structural defects and understand the implications of these when they are present• how achieving continuity of the insulation and building treatments can prevent problems such as water ingress, poor energy efficiency and thermal bridges, whilst understanding the unique circumstances at party walls and the associated risks to adjacent properties• how to recognise unintended consequences, why they happen, how to avoid them and the importance of moisture content in external fabric including but not limited to:<ul style="list-style-type: none">- impacts on neighbouring properties- insulation fitting and placement for different insulation types- junctions- thermal bridging and condensation risks- thermal bypassing- void ventilation• the potential causes of mould and fungal decay in buildings and the impact of ventilation and air flow following the installation of thermal efficiency measures• the implications of building defects and the repairs required and how they will affect the choice of energy
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	<p>efficiency measures and building treatments</p> <ul style="list-style-type: none">• the importance of compatibility and interactions between measures and the fabric of the underlying building• how to identify when specialist skills and knowledge are required and report accordingly, including but not limited to:<ul style="list-style-type: none">- fire safety- electrical- gas- asbestos- Radon- heritage- ecology- archaeological and architectural features- ventilation- dampness and building exposure• the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance• how your actions can lead to unintended consequences, why they happen, how to avoid them and the importance of reporting them
	<p>5.5 Describe the needs of other occupations and the importance of team work and communication how to effectively communicate within a team when identifying building construction, defects and interfaces.</p>

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Additional information about this unit	
Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	90
Assessment	10