Level 2 NVQ Diploma in Insulation and Building Treatments (Construction)

Qualification Specification

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Introduction

The ProQual Level 2 NVQ Diploma in Insulation and Building Treatments (Construction) qualification provides a nationally recognised qualification for those working in this specialised area of construction.

The awarding body for this qualification is ProQual Awarding Body (www.proqualab.com) and the regulatory body is the Office of Qualifications and Examinations Regulation (Ofqual); it is also endorsed by the sector body for construction - CITB.

The qualification has been accredited onto the Regulated Qualifications Framework (RQF) and is published on Ofqual's Register of Qualifications.

Qualification Profile
Level 2 NVQ Diploma in Insulation and Building Treatments (Construction)

Qualification title	**ProQual Level 2 NVQ Diploma in Insulation and Building Treatments (Construction)**
Ofqual qualification number	603/6900/0
Level	2
Total Qualification Time	480-680 hours (214-281 GLH)
Assessment	Pass or fail Internally assessed and verified by centre staff External quality assurance by ProQual verifiers
Qualification start date	14/12/2020
Qualification end date	

Entry Requirements

There are no formal entry requirements for this qualification.

Centres should carry out an **initial assessment** of candidate skills and knowledge to identify any gaps and help plan the assessment.

Qualification Structure

To achieve the qualification candidates must complete one of the pathways, candidates may also complete any of the Additional Units.

Unit Endorsements are indicated in the Pathway unit listings below, details of endorsements are also included after the learning outcomes/assessment criteria at the end of each relevant unit

Pathway 1 – Wood Preserving and Damp-proofing
Pathway 3 – Cavity Wall Insulation
Pathway 4 – Solid Floor Insulation
Pathway 5 – Under Floor Insulation
Pathway 6 – Cold Roof Insulation

CITB references are provided in this document for information only.

Pathway 1 – Wood Preserving and Damp-proofing

Candidates must complete all of the Mandatory units in this pathway.

Mandatory Units – ALL units required			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	*641*
T/508/6538	Conforming to productive working practices in the workplace	2	*642*
Y/508/6533	Moving, handling and storing resources in the workplace	2	*643*
D/617/2789	Preparing structures for treatment in the workplace *Unit Endorsements* ***One*** *of the following endorsements required:* *Wood preservation* *Damp-proofing* *Wall tie replacement*	2	*444v3*
R/617/2790	Applying preservation treatment in the workplace *Unit Endorsements* ***One*** *of the following endorsements requirement:* *Wood preservation* *Damp-proofing*	2	*445v3*
Y/617/2791	Reinstating the structure after building treatments in the workplace	2	*446v3*
R/618/5670	Insulation and building treatments, building construction, defects and interfaces	3	*817v1*
Additional Units (not compulsory)			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
A/615/1609	Erecting and dismantling access/working platforms in the workplace *Unit Endorsements* ***Two*** *of the following endorsements required:* *Ladders/crawler boards* *Stepladders/platform steps* *Proprietary towers* *Trestle platforms* *Mobile scaffold towers* *Proprietary staging/podiums*	2	*250v1*
T/618/5676	Develop customer relationships	2	*ICS B2 2010-2014*

Pathway 3 – Cavity Wall Insulation

Candidates must complete all of the Mandatory units in this pathway.

Mandatory Units – ALL units required			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	*641*
T/508/6538	Conforming to productive working practices in the workplace	2	*642*
Y/508/6533	Moving, handling and storing resources in the workplace	2	*643*
L/618/5697	Installing cavity wall insulation in the workplace	2	*450v4*
R/618/5670	Insulation and building treatments, building construction, defects and interfaces	3	*817v1*
Additional Units (not compulsory)			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
A/615/1609	Erecting and dismantling access/working platforms in the workplace *Unit Endorsements* ***Two*** *of the following endorsements required:* *Ladders/crawler boards* *Stepladders/platform steps* *Proprietary towers* *Trestle platforms* *Mobile scaffold towers* *Proprietary staging/podiums*	2	*250v1*
T/618/5676	Develop customer relationships	2	*ICS B2 2010-2014*

Pathway 4 – Solid Floor Insulation

Candidates must complete all of the Mandatory units in this pathway.

Mandatory Units – ALL units required			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	*641*
T/508/6538	Conforming to productive working practices in the workplace	2	*642*
Y/508/6533	Moving, handling and storing resources in the workplace	2	*643*
J/618/5696	Installing insulation to solid floors in the workplace	2	*814v1*
R/618/5670	Insulation and building treatments, building construction, defects and interfaces	3	*817v1*
Additional Units (not compulsory)			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
A/615/1609	Erecting and dismantling access/working platforms in the workplace *Unit Endorsements* ***Two*** *of the following endorsements required:* *Ladders/crawler boards* *Stepladders/platform steps* *Proprietary towers* *Trestle platforms* *Mobile scaffold towers* *Proprietary staging/podiums*	2	*250v1*
T/618/5676	Develop customer relationships	2	*ICS B2 2010-2014*

Pathway 5 – Under Floor Insulation

Candidates must complete all of the Mandatory units in this pathway, plus ONE of the Additional Mandatory units.

Mandatory Units – ALL units required			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	*641*
T/508/6538	Conforming to productive working practices in the workplace	2	*642*
Y/508/6533	Moving, handling and storing resources in the workplace	2	*643*
R/618/5670	Insulation and building treatments, building construction, defects and interfaces	3	*817v1*
Additional Mandatory Units – ONE unit required			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
F/618/5681	Installing insulation to suspended floors in the workplace	2	*749v2*
J/618/5682	Spraying insulation to suspended floors in the workplace	2	*818v1*
Additional Units (not compulsory)			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
A/615/1609	Erecting and dismantling access/working platforms in the workplace *<u>Unit Endorsements</u>* ***Two** of the following endorsements required:* *Ladders/crawler boards* *Stepladders/platform steps* *Proprietary towers* *Trestle platforms* *Mobile scaffold towers* *Proprietary staging/podiums*	2	*250v1*
T/618/5676	Develop customer relationships	2	*ICS B2 2010-2014*

Pathway 6 – Cold Roof Insulation

Candidates must complete all of the Mandatory units in this pathway.

Mandatory Units – ALL units required			***CITB references for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	*641*
T/508/6538	Conforming to productive working practices in the workplace	2	*642*
Y/508/6533	Moving, handling and storing resources in the workplace	2	*643*
K/618/5674	Installing insulation to cold roofs in the workplace *Unit Endorsements:* *One of the following:* *Placed* *Mechanically or adhesively fixed*	2	*451v4*
R/618/5670	Insulation and building treatments, building construction, defects and interfaces	3	*817v1*
Additional Units (not compulsory)			***CITB references provided for information only***
Unit Ref.	**Title**	**Level**	*CITB Internal Unit Ref.*
A/615/1609	Erecting and dismantling access/working platforms in the workplace *Unit Endorsements* ***Two** of the following endorsements required:* *Ladders/crawler boards* *Stepladders/platform steps* *Proprietary towers* *Trestle platforms* *Mobile scaffold towers* *Proprietary staging/podiums*	2	*250*
T/618/5676	Develop customer relationships	2	*ICS B2 2010-2014*

Centre Requirements

Centres must be approved to offer this qualification. If your centre is not approved please complete and submit form **ProQual Additional Qualification Approval Application**.

Staff
Staff delivering this qualification must be appropriately qualified and/or occupationally competent.

Assessors/Internal Quality Assurance
Assessors for each 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.

Assessors and internal quality assurance verifiers for competence-based units or qualifications will normally need to hold appropriate assessor or internal quality assurance qualifications.

Support for Candidates

Materials produced by centres to support candidates should:

- enable them to track their achievements as they progress through the learning outcomes and assessment criteria;
- provide information on where ProQual's policies and procedures can be viewed;
- provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence

Links to National Standards / NOS mapping

National Occupational Standards (NOS) are owned by a Sector Skills Council or Standard Setting Body and they describe the skills, knowledge and understanding needed to undertake a particular task or job at different levels of competence.

The structure and units of this qualification are based on NOS for the construction sector developed by CITB.

Assessment

This qualification is competence-based, candidates must demonstrate the level of competence described in the units. Assessment is the process of measuring a candidate's skill, knowledge and understanding against the standards set in the qualification.

The qualifications must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment, and it must be internally assessed by an appropriately experienced and qualified assessor.

Each candidate is required to produce a portfolio of evidence which demonstrates their achievement of all of the learning outcomes and assessment criteria for each unit.

Evidence can include:

- observation report by assessor
- assignments/projects/reports
- professional discussion
- witness testimony
- candidate product
- worksheets
- record of oral and written questioning
- Recognition of Prior Learning

Learning outcomes set out what a candidate is expected to know, understand or be able to do.

Assessment criteria specify the standard a candidate must meet to show the learning outcome has been achieved.

Learning outcomes and assessment criteria can be found from page 14.

Additional information for assessment and requirements for unit **endorsements** where relevant is included after all of the learning outcomes and assessment criteria for each unit.

Internal Quality Assurance

An internal quality assurance verifier confirms that assessment decisions made in centres are made by competent and qualified assessors, that they are the result of sound and fair assessment practice and that they are recorded accurately and appropriately.

Adjustments to Assessment

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements.

Centres should contact ProQual for further information or queries about the contents of the policy.

Results Enquiries and Appeals

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

Certification

Candidates who achieve the requirements for this qualification will be awarded:

- A certificate listing all units achieved, and
- A certificate giving the full qualification title -

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Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the qualification. All certificates will be issued to the centre for successful candidates.

Unit certificates

If a candidate does not achieve all of the units required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units achieved.

Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement certificates.

Title:	Conforming to general health, safety and welfare in the workplace.
Unit Number:	M/508/6537

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Comply with all workplace health, safety and welfare legislation requirements.	1.1 Comply with information from workplace inductions and any health, safety and welfare briefings attended relevant to the occupational area.
	1.2 Use health and safety control equipment safely to carry out the activity in accordance with legislation and organisational requirements.
	1.3 Comply with statutory requirements, safety notices and warning notices displayed within the workplace and/or on equipment.
	1.4 State why and when health and safety control equipment, identified by the principles of protection, should be used relating to types, purpose and limitations of each type, the work situation, occupational use and the general work environment, in relation to: – collective protective measures – personal protective equipment (PPE) – respiratory protective equipment (RPE) – local exhaust ventilation (LEV).
	1.5 State how the health and safety control equipment relevant to the work should be used in accordance with the given instructions.
	1.6 State which types of health, safety and welfare legislation, notices and warning signs are relevant to the occupational area and associated equipment.
	1.7 State why health, safety and welfare legislation, notices and warning signs are relevant to the occupational area.
	1.8 State how to comply with control measures that have been identified by risk assessments and safe systems of work.
2 Recognise hazards associated with the workplace that have not been previously controlled and report them in accordance with organisational procedures.	2.1 Report any hazards created by changing circumstances within the workplace in accordance with organisational procedures.
	2.2 List typical hazards associated with the work environment and occupational area in relation to resources, substances, asbestos, equipment, obstructions, storage, services and work activities.
	2.3 List the current Health and Safety Executive top ten safety risks.

Title:	Conforming to general health, safety and welfare in the workplace.
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
2 continued	2.4 List the current Health and Safety Executive top five health risks.
	2.5 State how changing circumstances within the workplace could cause hazards.
	2.6 State the methods used for reporting changed circumstances, hazards and incidents in the workplace.
3 Comply with organisational policies and procedures to contribute to health, safety and welfare.	3.1 Interpret and comply with given instructions to maintain safe systems of work and quality working practices.
	3.2 Contribute to discussions by offering/providing feedback relating to health, safety and welfare.
	3.3 Contribute to the maintenance of workplace welfare facilities in accordance with workplace welfare procedures.
	3.4 Safely store health and safety control equipment in accordance with given instructions.
	3.5 Dispose of waste and/or consumable items in accordance with legislation.
	3.6 State the organisational policies and procedures for health, safety and welfare, in relation to: – dealing with accidents and emergencies associated with the work and environment – methods of receiving or sourcing information – reporting – stopping work – evacuation – fire risks and safe exit procedures – consultation and feedback.
	3.7 State the appropriate types of fire extinguishers relevant to the work.
	3.8 State how and when the different types of fire extinguishers are used in accordance with legislation and official guidance.

Title:	Conforming to general health, safety and welfare in the workplace.
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
4 Work responsibly to contribute to workplace health, safety and welfare whilst carrying out work in the relevant occupational area.	4.1 Demonstrate behaviour which shows personal responsibility for general workplace health, safety and welfare.
	4.2 State how personal behaviour demonstrates responsibility for general workplace health, safety and welfare, in relation to: – recognising when to stop work in the face of serious and imminent danger to self and/or others – contributing to discussions and providing feedback – reporting changed circumstances and incidents in the workplace – complying with the environmental requirements of the workplace.
	4.3 Give examples of how the behaviour and actions of individuals could affect others within the workplace.
5 Comply with and support all organisational security arrangements and approved procedures.	5.1 Provide appropriate support for security arrangements in accordance with approved procedures: – during the working day – on completion of the day's work – for unauthorised personnel (other operatives and the general public) – for theft.
	5.2 State how security arrangements are implemented in relation to the workplace, the general public, site personnel and resources.

Title:	Conforming to general health, safety and welfare in the workplace.
Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated.
Sector Subject Area	05.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	7

Title:	Conforming to productive working practices in the workplace
Unit Number:	T/508/6538

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Communicate with others to establish productive work practices.	1.1 Communicate in an appropriate manner with line management, colleagues and/or customers to ensure that work is carried out productively.
	1.2 Describe the different methods of communicating with line management, colleagues and customers.
	1.3 Describe how to use different methods of communication to ensure that the work carried out is productive.
2 Follow organisational procedures to plan the sequence of work.	2.1 Interpret relevant information from organisational procedures in order to plan the sequence of work.
	2.2 Plan the sequence of work, using appropriate resources, in accordance with organisational procedures to ensure work is completed productively.
	2.3 Describe how organisational procedures are applied to ensure work is planned and carried out productively, in relation to: – using resources for own and other's work requirements – allocating appropriate work to employees – organising the work sequence – reducing carbon emissions.
	2.4 Describe how to contribute to zero/low carbon work outcomes within the built environment.
3 Maintain relevant records in accordance with the organisational procedures.	3.1 Complete relevant documentation according to the occupation as required by the organisation.
	3.2 Describe how to complete and maintain documentation in accordance with organisational procedures, in relation to: – job cards – worksheets – material/resource lists – time sheets.
	3.3 Explain the reasons for ensuring documentation is completed clearly and within given timescales.
4 Maintain good working relationships when conforming to productive working practices.	4.1 Carry out work productively, to the agreed specification, in conjunction with line management, colleagues, customers and/or other relevant people involved in the work to maintain good working relationships.

Title:	Conforming to productive working practices in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
	4.2 Apply the principles of equality and diversity and respect the needs of individuals when communicating and working with others.
	4.3 Describe how to maintain good working relationships, in relation to: – individuals – customer and operative – operative and line management – own and other occupations.
	4.4 Describe why it is important to work effectively with line management, colleagues and customers.
	4.5 Describe how working relationships could have an effect on productive working.
	4.6 Describe how to apply principles of equality and diversity when communicating and working with others.

Title:	Conforming to Productive Working Practices in the Workplace
Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated.
Sector Subject Areas	05.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	10

Title:	Moving, handling and storing resources in the workplace
Unit Number	Y/508/6533

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Comply with given information when moving, handling and/or storing resources.	1.1 Interpret the given information relating to moving, handling and/or storing resources, relevant to the given occupation.
	1.2 Interpret the given information relating to the use and storage of lifting aids and equipment.
	1.3 Describe the different types of technical, product and regulatory information, their source and how they are interpreted.
	1.4 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.
	1.5 Describe how to obtain information relating to using and storing lifting aids and equipment.
2 Know how to comply with relevant legislation and official guidance when moving, handling and/or storing resources.	2.1 Describe their responsibilities under current legislation and official guidance whilst working: – in the workplace, in confined spaces, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
	2.3 Explain what the accident reporting procedures are and who is responsible for making the reports.
	2.4 State the appropriate types of fire extinguishers relevant to the work.
	2.5 Describe how and when the different types of fire extinguishers, relevant to the given occupation, are used in accordance with legislation and official guidance.
3 Maintain safe working practices when moving, handling and/or storing resources.	3.1 Use health and safety control equipment safely to carry out the activity in accordance with legislation and organisational requirements when moving, handling and/or storing resources.
	3.2 Use lifting aids safely as appropriate to the work.

Title:	Moving, handling and storing resources in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
3 continued	3.3 Protect the environment in accordance with safe working practices as appropriate to the work.
	3.4 Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to moving, handling **and/or** storing resources, and the types, purpose and limitations of each type, the work situation, occupational use and the general work environment, in relation to: – collective protective measures – personal protective equipment (PPE) – respiratory protective equipment (RPE) – local exhaust ventilation (LEV).
	3.5 Describe how the health and safety control equipment relevant to the work should be used in accordance with the given instructions.
	3.6 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards.
4 Select the required quantity and quality of resources for the methods of work to move, handle and/or store occupational resources.	4.1 Select the relevant resources to be moved, handled and/or stored, associated with own work.
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the occupational resources in relation to: – lifting and handling aids – container(s) – fixing, holding and securing systems.
	4.3 Describe how the resources should be handled and how any problems associated with the resources are reported.
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
	4.5 Describe any potential hazards associated with the resources and methods of work.
5 Prevent the risk of damage to occupational resources and surrounding environment when moving, handling and/or storing resources.	5.1 Protect occupational resources and their surrounding area from damage in accordance with safe working practices and organisational procedures.
	5.2 Dispose of waste and packaging in accordance with legislation.

Title:	Moving, handling and storing resources in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
5 continued	5.3 Maintain a clean work space when moving, handling or storing resources.
	5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
	5.5 Explain why the disposal of waste should be carried safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.
6 Complete the work within the allocated time when moving, handling and/or storing resources.	6.1 Demonstrate completion of the work within the allocated time.
	6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: – progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme.
7 Comply with the given occupational resource information to move, handle **and/or** store resources to the required guidance.	7.1 Demonstrate the following work skills when moving, handling and/or storing occupational resources: – moving, positioning, storing, securing and/or using lifting aids and kinetic lifting techniques.
	7.2 Move, handle and/or store occupational resources to meet product information and organisational requirements relating to three of the following: – sheet material – loose material – bagged or wrapped material – fragile material – tools and equipment – components – liquids.
	7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them when moving, handling **and/or** storing occupational resources.
	7.4 Describe the needs of other occupations when moving, handling **and/or** storing resources.

Title:	Moving, handling and storing resources in the workplace
Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated.
Sector Subject Areas	05.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	17

Title:	Insulation and building treatments, building construction, defects and interfaces
Unit Number:	R/618/5670

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
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: • 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: • 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

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
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.	2.1 Describe the relevant, current legislation, standards and official guidance and how they are applied.
	2.2 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to: • fires • spillages • injuries • emergencies relating to occupational activities • identification of and reporting of asbestos containing materials
	2.3 Describe how to report risks and hazards identified by the following: • 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)
	2.4 Explain the accident reporting procedures and who is responsible for making reports.

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
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.

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
5 Comply with the given contract information when identifying common building construction, defects and interfaces to the required specification.	5.1 Comply with the given contract information to carry out the work efficiently to the required specification.
	5.2 Demonstrate work skills to carry out external and internal pre installation checks in regard to building construction, defects and material interfaces:
	5.3 Identify common building defects including but not limited to: • salt contamination • causes of dampness • rain penetration • rising damp • internal moisture vapour • damaged services • structural defects
	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: • 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: - 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 efficiency measures and other forms of building treatments with specific reference to:

	- roofs - walls including internal and external finishes - floors - windows and doors - chimneys and fireplaces - flues and combustion ventilation - fabric interfaces - existing services • 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: - 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 efficiency measures and building treatments • 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:

	- 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
	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.

Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated.
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	90
Assessment	10

Title:	Preparing structures for treatment in the workplace
Unit Number:	D/617/2789

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Interpret the given information relating to the work and resources when preparing structures for treatment.	1.1 Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments, manufactures' information and data sheets.
	1.2 Comply with information and/or instructions derived from risk assessments and method statements.
	1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.
	1.4 Describe different types of information, their source and how they are interpreted in relation to: – drawings, specifications, schedules, method statements, risk assessments, manufactures' information and data sheets, and current regulations governing buildings.
2 Know how to comply with relevant legislation and official guidance when preparing structures for treatment.	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: – in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, vehicles, company and operative/technician.
	2.3 Explain what the accident reporting procedures are and who is responsible for making reports.
3 Maintain safe and healthy working practices when preparing structures for treatment.	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when preparing structures for treatment.
	3.2 Demonstrate compliance with given information and relevant legislation when preparing structures for treatment in relation to the following – safe use of access equipment and work platforms – safe use, storage and handling of materials, tools and equipment – specific risks to health

Title:	Preparing Structures for Treatment in the Workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
3 continued	3.3 Explain why and when health and safety control equipment identified by the principles of prevention should be used, relating to preparing structures for treatment, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: – collective protective measures – personal protective equipment (PPE) – respiratory protective equipment – local exhaust ventilation (LEV).
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.
	3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities
4 Select the required quantity and quality of resources for the methods of work to prepare structures for treatment.	4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment.
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: – cleaning fluids, neutralisers, inhibitors, water repellents, stabilisers and wall ties – signs, barriers, props, fixings – hand tools, portable power tools and equipment.
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported.
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
	4.5 Describe any potential hazards associated with the resources and methods of work.
	4.6 Describe how to calculate quantity length, area, volume and wastage associated with the method/procedure to prepare structures for treatment.

Title:	Preparing Structures for Treatment in the Workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
5 Minimise the risk of damage to the work and surrounding area when preparing structures for treatment.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	5.2 Minimise damage and maintain a clean work space.
	5.3 Dispose of waste in accordance with current legislation.
	5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
	5.5 Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information and data sheets, statutory regulations and official guidance.
6 Complete the work within the allocated time when preparing structures for treatment.	6.1 Demonstrate completion of the work within the allocated time.
	6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to: – types of progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme.
7 Comply with the given contract information to prepare structures for treatment to the required specification.	7.1 Demonstrate the following work skills when preparing structures for treatment: – measuring, marking out, preparing, positioning and securing.
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment.
	7.3 Prepare for treatments of wood preservation and/or damp-proofing and/or wall tie replacement, to given working instructions, relating to three of the following: – clean substrates – erect temporary barriers and signs – removal of non-structural and/or structural components for access to treatment areas – storage of items to be reinstated.

Title:	Preparing Structures for Treatment in the Workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
	7.4 Describe how to apply safe, healthy and environmental work practices, follow procedures, report problems and establish the authority needed to rectify them, to: – understand the implications of existing guarantees and warranties – prepare site and clean structures to substrate for either in-situ wood preservation and/or damp-proofing and/or wall tie replacement remedial treatments above and below (wood preservation only) ground level – protect the site from all treatments (dust sheets, plastic sheets) – measure areas for treatment and volumes of treatment products: cleaning fluids, neutralisers, inhibitors, bocides, water repellents stabilisers and wall ties – erect temporary barriers and signs – remove non-structural and structural components for access to treatment areas – check for hidden utilities – provide temporary supports to the structure – store items to be reinstated after treatment – recognise when specialist skills and knowledge are required and report accordingly – recognise specific requirements for structures of special interest, traditional construction (pre 1919) and historical significance and report accordingly – use hand tools, portable power tools and equipment – work at height – use access equipment and work platforms.
	7.5 Describe the needs of other occupations and how to effectively communicate within a team when preparing structures for treatment.
	7.6 Describe how to maintain the tools and equipment used when preparing structures for treatment.

Title:	Preparing Structures for Treatment in the Workplace
Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment and in accordance with the ConstructionSkills 'Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated. This unit must be assessed against the endorsements detailed within the relevant NVQ structure. <u>ProQual Level 2 NVQ Diploma in Insulation and Building Treatments (Construction)</u> **One** of the following endorsements required: Wood preservation Damp-proofing Wall tie replacement
Sector Subject Area	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	43

Title:	Applying preservation treatment in the workplace
Unit Number:	R/617/2790

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Interpret the given information relating to the work and resources when applying preservation treatment.	1.1 Interpret and extract relevant information from drawings, specifications, schedules method statements, risk assessments, manufactures' information and data sheets.
	1.2 Comply with information and/or instructions derived from risk assessments and method statements.
	1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.
	1.4 Describe different types of information, their source and how they are interpreted in relation to: – drawings, specifications, schedules, method statements, risk assessments and manufactures' information and data sheets, and current regulations governing buildings.
2 Know how to comply with relevant legislation and official guidance when applying preservation treatment.	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: – in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, vehicles, company and operative/technician.
	2.3 Explain what the accident reporting procedures are and who is responsible for making reports.
	2.4 Describe the types of fire extinguishers available when applying preservation treatment and describe how and when they are used

Title:	Applying preservation treatment in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
3 Maintain safe and healthy working practices when applying preservation treatment.	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when applying preservation treatment.
	3.2 Demonstrate compliance with given information and relevant legislation when applying preservation treatment in relation to the following: – safe use of access equipment and work platforms – safe use, storage and handling of materials, tools and equipment – specific risks to health.
	3.3 Explain why and when health and safety control equipment identified by the principles of prevention should be used, relating to applying preservation treatment, and the types, purpose and limitations of each type the work situation and general work environment, in relation to: – collective protective measures – personal protective equipment (PPE) – respiratory protective equipment (RPE) – local exhaust ventilation (LEV).
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.
	3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.
4 Select the required quantity and quality of resources for the methods of work to apply preservation treatment.	4.1 Select resources associated with own work in relation to materials, components, tools and equipment.
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: – biocides, damp-proofing products and water – cementitious, liquid and physical membranes – hand tools, portable power tools and treatment equipment.
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported.

Title:	Applying preservation treatment in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
4 continued	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
	4.5 Describe any potential hazards associated with the resources and methods of work.
	4.6 Describe how to calculate quantity, length, area, volume and wastage associated with the method/procedure to apply preservation treatment.
5 Minimise the risk of damage to the work and surrounding area when applying preservation treatment.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	5.2 Minimise damage and maintain a clean work space.
	5.3 Dispose of waste in accordance with current legislation.
	5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
	5.5 Explain why the disposal of waste should be carried out in accordance with environmental responsibilities, organisational procedures, manufacturers' information and data sheets, statutory regulations and official guidance.
6 Complete the work within the allocated time when applying preservation treatment.	6.1 Demonstrate completion of the work within the allocated time.
	6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to: – types of progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme.

Title:	Applying preservation treatment in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Comply with the given contract information to apply preservation treatment to the required specification.	7.1 Demonstrate the following work skills when applying preservation treatment: – measuring, mixing, brushing, drilling, spraying and injecting.
	7.2 Use and maintain hand tools, portable power tools, treatment equipment and ancillary equipment.
	7.3 Apply remedial in-situ treatments to given working instructions for either wood preservation and/or damp-proofing.
	7.4 Describe how to apply safe, healthy and environmental work practices, follow procedures, report problems and establish the authority needed to rectify them, to: - understand the implications of existing guarantees and warranties - apply wood preservation and/or damp-proofing treatments above or below (wood preservation only) ground level to structures and components by brush, spray, irrigation, injection and electro-osmosis - prepare two-part treatment mixes - identify and complete drilling patterns - measure areas for treatment and volumes of treatment mixes, biocides and additives - apply cementitious and liquid membranes and fix physical membranes - recognise when specialist skills and knowledge are required and report accordingly - recognise specific requirements for structures of special interest, traditional construction (pre 1919) and historical significance - use hand tools, portable power tools and treatment equipment - work at height - use access equipment and work platforms.
	7.5 Describe the needs of other occupations and how to effectively communicate within a team when applying preservation treatments.
	7.6 Describe how to maintain the tools and equipment used when applying preservation treatment.

Title:	Applying preservation treatment in the workplace
Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment and in accordance with the ConstructionSkills 'Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated. This unit must be assessed against the endorsements detailed within the relevant NVQ structure. <u>ProQual Level 2 NVQ Diploma in Insulation and Building Treatments (Construction):</u> **One** of the following endorsements required: Wood preservation Damp-proofing
Sector Subject Areas	05.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	53

Title:	Reinstating the structure after building treatments in the workplace
Unit Number:	Y/617/2791

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Interpret the given information relating to the work and resources when reinstating the structure after building treatments.	1.1 Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and data sheets.
	1.2 Comply with information and/or instructions derived from risk assessments and method statements.
	1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.
	1.4 Describe different types of information, their source and how they are interpreted in relation to: – drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and data sheets, and current regulations governing buildings.
2 Know how to comply with relevant legislation and official guidance when reinstating the structure after building treatments.	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: – in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, vehicles, company and operative/technician.
	2.3 Explain what the accident reporting procedures are and who is responsible for making reports.

Title:	Reinstating the structure after building treatments in the workplace	
Learning outcomes *The learner will be able to:*		**Assessment criteria** *The learner can:*
3	Maintain safe and healthy working practices when reinstating the structure after building treatments.	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when reinstating the structure after building treatments
		3.2 Demonstrate compliance with given information and relevant legislation when reinstating the structure after building treatments in relation to the following: – safe use of access equipment and work platforms – safe use, storage and handling of materials, tools and equipment – specific risks to health
		3.3 Explain why and when health and safety control equipment, identified by the principles of prevention should be used, relating to reinstating the structure after building treatments, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: – collective protective measures – personal protective equipment (PPE) – respiratory protective equipment (RPE) – local exhaust ventilation (LEV).
		3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.
		3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.
4	Select the required quantity and quality of resources for the methods of work to reinstate the structure after building treatments	4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment.
		4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: – removed components, sand, cement, lime, bricks, masonry, stone, plasters, plasterboards, damp-proof course (DPC), insulation, timber, wall ties, dyes, fixings, fittings – hand tools, power tools and equipment.
		4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported.
		4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.

Title:	Reinstating the structure after building treatments in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
4 continued	4.5 Describe any potential hazards associated with the resources and methods of work.
	4.6 Describe how to calculate quantity, length, area and wastage associated with the method/procedure to reinstate the structure after building treatments.
5 Minimise the risk of damage to the work and surrounding area when reinstating the structure after building treatments.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	5.2 Minimise damage and maintain a clean work space.
	5.3 Dispose of waste in accordance with current legislation.
	5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
	5.5 Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information and data sheets, statutory regulations and official guidance.
6 Complete the work within the allocated time when reinstating the structure after building treatments	6.1 Demonstrate completion of the work within the allocated time.
	6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to: – types of progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme.

Title:	Reinstating the structure after building treatments in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Comply with the given contract information to reinstate the structure after building treatments to the required specification.	7.1 Demonstrate the following work skills when reinstating the structure after building treatments: – measuring, marking out, fitting, applying, cleaning, positioning and securing.
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment
	7.3 Reinstate the structure after wood preservation and/or damp-proofing treatments and/or wall tie replacement to given working instructions, relating to two of the following: – air bricks – masonry – plasterwork and/or renders – structural timbers (wall plates, joists, flooring/decking) wood preservation and/or damp-proofing only – non-structural components (doors, windows, skirting, architraves and services that have been temporarily moved for treatment purposes) – damp-proof courses – insulation.
	7.4 Arrange re-commission of services (electric, gas, water, media cables) to given working instructions.
	7.5 Describe how to apply safe, healthy and environmental work practices, follow procedures, report problems and establish the authority needed to rectify them, to: – reinstate structures after treatments above or (wood preservation only) below ground – understand the implications of existing guarantees and warranties –reinstate air bricks and ventilation – reinstate masonry – rebuild (sleeper walls, piers, walls) – apply plasterwork where removed – install structural timbers (wall plates, joists, flooring/decking) – replace doors, windows, skirting, architraves – replace services, to the point of connection, that were temporarily removed for treatment purposes – arrange the re-commission of services (electric, gas, water, media cables) – insert damp-proof courses – replace insulation – mix lime, and cement mortars and concrete – clean cavities

Title:	Reinstating the structure after building treatments in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 continued	7.6 – complete post installation checks: compliance with specifications, water penetration, anchorage/fixing, vents, services (gas, electric, water, media cables) – recognise when specialist skills and knowledge are required and report accordingly – recognise specific requirements for structures of special interest, traditional construction (pre 1919) and historical significance – use hand tools, portable power tools and equipment – work at height – use access equipment and work platforms.
	7.7 Describe the needs of other occupations and how to effectively communicate within a team when reinstating the structure after building treatments
	7.8 Describe how to maintain the tools and equipment used when reinstating the structure after building treatments.

Title:	Reinstating the structure after building treatments in the workplace
Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment and in accordance with the ConstructionSkills 'Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated.
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	57

Title:	Installing cavity wall insulation in the workplace
Unit Number:	L/618/5697

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Interpret the given design information relating to the work and resources to confirm its accuracy, completeness and relevance to the building type, fabric and condition when installing cavity wall insulation.	1.1 Interpret and extract relevant information from: • 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 Describe why the organisational procedures have been developed and how they are implemented
	1.4 Explain the importance of organisational procedures to solve problems and why it is important to follow them.
	1.5 Describe different types of information, their source, accuracy, completeness and how they are interpreted in relation to: • drawings • specifications • schedules • method statements • risk assessments • design • standards • manufacturers' information • data sheets • official guidance • current legislation and regulations governing buildings

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
2 Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing cavity wall insulation.	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to: • the workplace • below ground level • confined spaces • at height • tools and equipment, • materials and substances • movement and storage of materials by manual handling and mechanical lifting
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to: • site • workplace • siting and location of vehicles • company • customer • access equipment • material and waste storage • the general public
	2.3 Explain the accident reporting procedures and who is responsible for making reports.
	2.4 Describe the types of fire extinguishers available when installing cavity wall insulation and describe how and when they are used in relation to: • water • CO_2 • foam • powder

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
3 Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices	3.1 Demonstrate compliance with, relevant legislation, standards and official guidance when installing cavity wall insulation in relation to the following: • methods of work • safe use of health and safety control equipment • Safe use of access equipment and harness systems • safe use, storage and handling of materials, tools and equipment • operative maintenance of installation equipment • specific risks to health including mental health • specific risks associated with ventilation (roof space, inside the property and under floor) and combustion appliances
	3.2 Explain why, when and how health and safety control equipment, identified by the principles of prevention, should be used when installing cavity wall insulation, in relation to: • collective protective measures • personal protective equipment (PPE) • respiratory protective equipment (RPE) • local exhaust ventilation (LEV)
	3.3 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to: • fires • spillages • injuries • emergencies relating to occupational activities • identification of and reporting asbestos containing materials
	3.4 Describe how to report risks and hazards identified by the following: • risk assessment • personal assessment • methods of work • manufacturers' technical information • data sheets • statutory regulations • official guidance • Control Of Substances Hazardous to Health (COSHH)

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
4 Select the required quantity and quality of resources for the methods of work to install cavity wall insulation.	4.1 Select resources associated with own work in relation to materials, components and finishes, tools and equipment.
	4.2 Check the suitability, compatibility characteristics of the materials, components and finishes determine if they are moisture open or moisture closed and their impact on the building.
	4.3 Record and report issues or defects.
	4.4 Describe why the characteristics, compatibility, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be rectified.
	4.5 Describe how the resources should be used and how problems associated with the resources are reported in relation to: • protective sheeting • warning signs • public protection equipment • calibration equipment • essential airway sleeves • cavity barriers • mortar mix • mortar dyes • insulation • combustion vents • all work tools
	4.6 Describe how to confirm that the resources and materials conform to the specification.
	4.7 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
	4.8 Describe how to identify the hazards associated with the resources and methods of work and how they are overcome.
	4.9 Describe how to calculate the quantity of materials required and used to ensure, adequacy of full as per system designer specification and wastage associated with the method and procedure to install cavity wall insulation.

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
5 Minimise the risk of damage to the work and surrounding area when installing cavity wall insulation.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	5.2 Maintain a safe, clear and tidy work area.
	5.3 Explain why it is important to maintain a safe, clear and tidy work area
	5.4 Dispose of waste in accordance with current legislation.
	5.5 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.
	5.6 Explain the importance of protecting the work and its surrounding area against the risk of damage.
	5.7 Explain why and how the disposal of waste must be carried out safely in accordance with the following: • current legislation • environmental responsibilities • organisational procedures • suppliers and manufactures' information • data sheets • statutory regulations • official guidance
6 Complete the work within the allocated time when installing cavity wall insulation.	6.1 Demonstrate completion of your work within the estimated, allocated time and performance requirements of the system design, method statement and the required standard.
	6.2 Describe the purpose of the work programme, including the estimated and allocated time and explain why deadlines should be kept in relation to: • types of progress charts, timetables and estimated times • organisational procedures for reporting circumstances which will affect the work programme.

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Comply with the given contract information to carry out the work efficiently install cavity wall insulation to the required specification.	7.1 Demonstrate the following work skills when installing cavity wall insulation: • measuring • marking out • calibrating • monitoring • fitting • filling • making good
	7.2 Use and maintain all work tools and installation equipment.
	7.3 Carry out external and internal pre-installation check, assessing recording and reporting issues to include: • suitable access • property suitability • structural integrity • dampness • decay • exposure ratings • vents and ventilation • services (gas, electric, water, media cables)
	7.4 Check, record and report issues with construction ventilation, flues, chimneys and combustion air ventilators pre and post installation.
	7.5 Prepare for and install cavity wall insulation to given, system designer specification, method statement and the required standard.
	7.6 Drill holes to specified patterns using depth gauges and right angled drilling only, selecting the correct masonry drill bit, speed and setting, and taking effective steps to minimise the impact to the building fabric and preventing rubble falling into the cavity.
	7.7 Fit cavity barriers.
	7.8 Assemble and operate installation equipment, measuring density, flow and quality tests.
	7.9 Fill holes with matching and suitable materials.
	7.10 Clean, disassemble and prepare installation processing equipment for transportation.
	7.11 Handover and sign off to the customers satisfaction.
	7.12 Carry out post installation checks.

7 Continued	7.13	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: • 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: - suitable access - 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 • how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to: - condition of building fabric - identification of any areas of potential water penetration - visibility and completeness of damp proof course - condition of window and door seals - height of internal floors in relation to external floor height - condition of roof - damaged or spalled brickwork - drainage and down pipes - protection and existence of sub floor ventilation - cavity width and identification of any debris

7 Continued	• how to identify when specialist skills and knowledge are required and report accordingly including but not limited to: - fire safety - electrical - asbestos - Radon - heritage - architectural features - ecology - ventilation • 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 to identify, record, report and rectify unintended consequences not addressed in the design, including but not limited to the existence of: thermal bridges, thermal bypassing and water ingress, inadequate ventilation and condensation risk • why it is important to avoid unintended consequences • why it is important to explain installation procedure to building occupants to include but not limited to the following: - scope and work programme - safety requirements during the installation process - protection of property and personal items - specific benefits and implications to include homeowner information - agreed standards of making good • the implications of existing guarantees and warranties that may be compromised by the installation, to include but not limited to: - wall ties - windows - damp proof course - renders - Tyrolean coatings - silicone weather proof coatings • how to work with, around and in close proximity to plant and machinery

7 Continued	• how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements • how and why it is important to check, record and report issues with construction ventilation, flues, chimneys and combustion air ventilators pre and post installation • why it is important to ensure pre-installation material checks are within specified parameters, to include checking and recording batch number and reporting defects • how to assemble and operate installation processing equipment in line with manufacturers and system manuals • how to calibrate equipment to measure density, flow and quality tests to ensure they are in line with manufacturers specifications and material requirements • why effective selection of PPE equipment to avoid cementation dust is important • how to drill holes to specified patterns and the importance of using depth gauges and right angled drilling only, selecting the correct masonry drill bit, speed and setting, and taking effective steps to minimise the impact to the building fabric and preventing rubble falling into the cavity • how to fit cavity barriers in accordance with specification from roof to ground level in order to avoid overspill and underspill between the two separated cavity elements • how to install cavity wall insulation from inside and outside of a building including lance techniques • why it is important to ensure effective and safe operation of equipment and consistency of fill using the appropriate technique for the selected material (to include bead using adhesive bonding agents and blown mineral wool) • how to fill holes with matching and suitable materials to ensure evidence of the drill pattern is minimised and the finish is in keeping with the original building texture and colour • why it is important to clean and disassemble installation processing equipment and pack away for transportation • the different types of air and vapour control layers and breather membranes, where and how they should be used and why it is important to install them correctly • the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity • why it is important to immediately record and report unforeseen events including but not limited to equipment

7 Continued	malfunctions, situations and faults not identified in the original design • why it is important to complete post installation checks in accordance with the system designer installations operations manual and report issues to include but not limited to safeguarding the combustion ventilation and report defects • why it is important to provide post installation advice and guidance to building occupants including homeowner packs • how to handover and sign off to the customers satisfaction • how to use all work tools and installation equipment in line with manufacturers and system specifications • how to work at height using access equipment and harness systems • how and why maintenance of all work tools and installation equipment is carried out
	7.14 Describe the needs of other occupations and the importance of team work and communication when installing cavity wall insulation.

Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated.
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	100
Assessment	10

Title:	Installing insulation to solid floors in the workplace
Unit Number:	J/618/5696

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Interpret the given design information relating to the work and resources to confirm its accuracy, completeness and relevance to the building type, fabric and condition when installing insulation to solid floors.	1.1 Interpret and extract relevant information from: • 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 Describe why the organisational procedures have been developed and how they are implemented.
	1.4 Explain the importance of organisational procedures to solve problems and why it is important to follow them.
	1.5 Describe different types of information, their source, accuracy, completeness and how they are interpreted in relation to: • drawings • specifications • schedules • method statements • risk assessments • design • standards • manufacturers' information • data sheets • official guidance • current legislation and regulations governing buildings

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
2 Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing insulation to solid floors.	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to: • the workplace • below ground level • in confined spaces • at height • tools and equipment • materials and substances • movement and storage of materials by manual handling and mechanical lifting
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to: • site • workplace • siting and location of vehicles • company • customer • access equipment • material and waste storage • the general public
	2.3 Explain the accident reporting procedures and who is responsible for making reports.
	2.4 Describe the types of fire extinguishers available when installing insulation to solid floors and describe how and when they are used in relation to: • water • CO_2 • foam • powder

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
3 Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices	3.1 Demonstrate compliance with relevant legislation, standards and official guidance when installing insulation to solid floors in relation to the following: • methods of work • safe use of health and safety control equipment • safe use of access equipment • safe use, storage and handling of materials, tools and equipment • specific risks to health including mental health • specific risks associated with ventilation and combustion appliances

	3.2 Explain why, when and how health and safety control equipment, identified by the principles of prevention, should be used when installing insulation to solid floors in relation to:
	• collective protective measures
	  • personal protective equipment (PPE)
	  • respiratory protective equipment (RPE)
	  • local exhaust ventilation (LEV)

	3.3 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to: • fires • spillages • injuries • emergencies relating to occupational activities • identification of and reporting of asbestos containing materials
	3.4 Describe how to report risks and hazards identified by the following: • risk assessment • personal assessment • methods of work • manufacturers' technical information • data sheets • statutory regulations • official guidance • Control of Substances Hazardous to Health (COSHH)

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
4 Select the required quantity and quality of resources for the methods of work to install insulation to solid floors.	4.1 Select resources associated with own work in relation to materials, components, tools and equipment.
	4.2 Check the suitability, compatibility and characteristics of the materials and components, determine if they are moisture open or moisture closed and their impact on the building.
	4.3 Record and report issues or defects.
	4.4 Describe why the characteristics, compatibility, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be rectified.
	4.5 Describe how the resources should be used and how problems associated with the resources are reported in relation to: • protective sheeting • warning signs • temporary barriers • insulation • making good materials • filling materials • tapes and sealants • all work tools
	4.6 Describe how to confirm that the resources and materials conform to the specification.
	4.7 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
	4.8 Describe how to identify the hazards associated with the resources and methods of work and how they are overcome.
	4.9 Describe how to calculate the quantity of materials required to ensure consistency of coverage to manufacturers' specification and wastage associated with the method and procedure to install insulation to solid floors.

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
5 Minimise the risk of damage to the work and surrounding area when installing insulation to solid floors.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	5.2 Maintain a safe, clear and tidy work area.
	5.3 Explain why it is important to maintain a safe, clear and tidy work area.
	5.4 Dispose of waste in accordance with current legislation.
	5.5 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.
	5.6 Explain the importance of protecting the work and its surrounding area against the risk of damage.
	5.7 Explain why and how the disposal of waste must be carried out safely in accordance with the following: • current legislation • environmental responsibilities • organisational procedures • manufacturers' information • data sheets • statutory regulations • official guidance
6 Complete the work within the allocated time when installing insulation to solid floors.	6.1 Demonstrate completion of your work within the estimated, allocated time and performance requirements of the system design, method statement and the required standard.
	6.2 Describe the purpose of the work programme, including the estimated and allocated time and explain why deadlines should be kept in relation to: • types of progress charts, timetables and estimated times • organisational procedures for reporting circumstances which will affect the work programme

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Comply with the given contract information to carry out the work efficiently to install insulation to solid floors to the required specification.	7.1 Demonstrate the following work skills when installing insulation to solid floors: • carrying out internal pre-installation checks • measuring • marking out • calculating • cutting • fitting • filling • positioning and securing • making good
	7.2 Use and maintain all work tools and equipment.
	7.3 Check, record and report issues with construction ventilation, flues, chimneys and combustion air ventilators pre and post installation.
	7.4 Recognise, record and report the key issues that may inhibit commencement of the work including but not limited to: • condition of building fabric • identification of any areas of potential water penetration • visibility and completeness of damp proof course and membranes • condition of window and door seals • height of internal floors in relation to external floor height • drainage and down pipes • protection of existing ventilation in line with design
	7.5 Identify the potential risk of increased condensation following installation relating to solid floors and how to prevent it.
	7.6 Prepare floor for insulation to include the following but not limited to: • safe systems of work • minimising damage • checking existing services • building construction and heritage significance • working surface, solid, free from defect, level and dry

		• customer safety
	7.7	Check for hidden utilities.
	7.8	Maintain integrity of membranes.
	7.9	Remove and minimise damage to floorcoverings.
	7.10	Clear and safeguard existing and install additional ventilation if required in accordance with the design and installation checks and report back issues which impact the ventilation assessment.
	7.11	Protect the building occupants and their property.
	7.12	Confirm pre-installation material checks are within specified parameters to include checking and reporting defects.
	7.13	Rectify defects in preparation of insulation measures
	7.14	Prepare and place insulation to solid floors using the following methods to given working instructions: • insulation under a screed • insulation on top of a solid floor • cut, place and tape insulation to manufacturers' specification • apply damp proof membrane as required • restrict or reduce unwanted heat loss • ensure maintenance of adequate ventilation • minimise the effects of thermal bridging through compliance with design detail and ensuring a consistent level of insulation of the installed area
	7.15	Complete post installation checks in accordance with the design, method statement and installations operations manual and report issues to include but not limited to safeguarding the combustion ventilation and report defects.
	7.16	Provide post installation advice and guidance to building occupants including homeowner packs.
	7.17	Handover and sign off to the customers satisfaction.
	7.18	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: • 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: - suitable access - property suitability - structural integrity - dampness - decay - vents and ventilation - services (gas, electric, water, media cables) • why it is important to ensure that all necessary repairs are completed prior to installation • how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to: - condition of building fabric - identification of any areas of potential damp - evidence of incompleteness of damp proof course and membranes - height of internal floors in relation to external floor height - damaged or spalled brickwork - drainage and down pipes - protection and existence of sub floor ventilation • how to identify when specialist skills and knowledge are required and report accordingly including but not limited to: - fire safety - electrical - asbestos - Radon - heritage - ecology - architectural features - ventilation • 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 to identify, record, report and rectify unintended consequences not addressed in the design, including but not limited to the existence of: thermal bridges, thermal bypassing and water ingress, inadequate ventilation and condensation risk

	• why it is important to avoid unintended consequences • how to check, record and report issues with construction ventilation, flues, chimneys and combustion air ventilators pre and post installation • why it is important to recognise the potential risk of increased condensation following installation relating to solid floors and how to prevent it • why it is important to explain installation procedure to building occupants to include but not limited to the following: - scope and work programme - safety requirements during the installation process - protection of property and personal items - specific benefits and implications to include homeowner information - agreed standards of making good • how to identify and follow the installation quality requirements • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to prepare floor for insulation to include the following but not limited to: - safe systems of work - minimising damage - checking existing services - building construction and heritage significance - working surface, solid, free from defect, level and dry - customer safety • how to check for and protect hidden utilities • the importance of ensuring all work to services (gas, electric, water) is carried out by suitably qualified people • how to maintain integrity of membranes • how to remove and minimise damage to floorcoverings • how to clear and safeguard existing and install additional ventilation if required in accordance with the design and installation checks and report back issues which impact the ventilation assessment • how to protect the building occupants and their property • how to confirm pre-installation material checks are within specified parameters to include checking and reporting defects • how to rectify defects in preparation of insulation measures

	• how to prepare and place insulation to solid floors using the following methods to given working instructions: - insulation under a screed - insulation on top of a solid floor - cut, place and tape insulation to manufacturers' specification - apply damp proof membrane - restrict or reduce unwanted heat loss - ensure maintenance of adequate ventilation • why it is important to minimise the effects of thermal bridging through compliance with design detail and ensuring a full consistent level of insulation to the area being insulated • the different types of air and vapour control layers and breather membranes, where and how they should be used and why it is important to install them correctly • the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity • why it is important to immediately record and report unforeseen events including but not limited to equipment malfunctions, situations and faults not identified in the original design • why it is important to complete post installation checks in accordance with the design, method statement and installations operations manual and report issues to include but not limited to safeguarding the combustion ventilation and report • why it is important to provide post installation advice and guidance to building occupants including homeowner packs • how to handover and sign off to the customers satisfaction • how to use all work tools and equipment • how to work at height using access equipment • how and why maintenance of all work tools and installation equipment is carried out
	7.19 Describe the needs of other occupations and the importance of team work and communication when installing insulation to solid floors.

Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated.
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	100
Assessment	10

Title:	Installing insulation to suspended floors in the workplace
Unit Number:	F/618/5681

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Interpret the given design information relating to the work and resources to confirm its accuracy, completeness and relevance to the building type, fabric and condition when installing insulation to suspended floors.	1.1 Interpret and extract relevant information from: • 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 Describe why the organisational procedures have been developed and how they are implemented.
	1.4 Explain the importance of organisational procedures to solve problems and why it is important to follow them.
	1.5 Describe different types of information, their source, accuracy, completeness and how they are interpreted in relation to: • drawings • specifications • schedules • method statements • risk assessments • design • standards • manufacturers' information • data sheets • official guidance • current legislation and regulations governing buildings

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
2 Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing insulation to suspended floors.	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to: • the workplace • below ground level • confined spaces • at height • tools and equipment • materials and substances • movement and storage of materials by manual handling and mechanical lifting
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to: • site • workplace • siting and location of vehicles • company • customer • access equipment • materials and waste storage • the general public
	2.3 Explain the accident reporting procedures and who is responsible for making reports.
	2.4 Describe the types of fire extinguishers available when applying surface finishes to installing insulation to suspended floors and describe how and when they are used in relation to: • water • CO_2 • foam • powder

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
3 Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices	3.1 Demonstrate compliance with, relevant legislation, standards and official guidance when installing insulation to suspended floors in relation to the following: • methods of work • safe use of health and safety control equipment • safe use of access equipment • safe use, storage and handling of materials, tools and equipment • specific risks to health including mental health • specific risks associated with ventilation (inside the property and under floor) and also including combustion appliances • specific risks associated with working in confined spaces
	3.2 Explain why, when and how health and safety control equipment, identified by the principles of prevention, should be used when installing insulation to suspended floors, in relation to: • collective protective measures • personal protective equipment (PPE) • respiratory protective equipment (RPE) • local exhaust ventilation (LEV)
	3.3 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to: • fires • spillages • injuries • emergencies relating to occupational activities • identification of and reporting of asbestos containing materials
	3.4 Describe how to report risks and hazards identified by the following: • risk assessment • personal assessment • methods of work • manufacturers' technical information • data sheets • statutory regulations • official guidance • Control of Substances Hazardous to Health (COSHH)

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
4 Select the required quantity and quality of resources for the methods of work to install insulation to suspended floors.	4.1 Select resources associated with own work in relation to materials, components, fixings, finishes, tools and equipment.
	4.2 Check the suitability, compatibility and characteristics of the materials, components and finishes, determine if they are moisture open or moisture closed and their impact on the building.
	4.3 Record and report issues.
	4.4 Describe why the characteristics, compatibility, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be rectified.
	4.5 Describe how the resources should be used and how problems associated with the resources are reported in relation to: • protective sheeting • warning signs • temporary barriers • making good materials • filling materials • sealants • all work tools and equipment
	4.6 Describe how to confirm that the resources and materials conform to the specification.
	4.7 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
	4.8 Describe how to identify the hazards associated with the resources and methods of work and how they are overcome.
	4.9 Describe how to calculate the quantity of materials required and used to ensure, adequacy of fill as per system designer specification and wastage associated with the method and procedure to install insulation to suspended floors.
5 Minimise the risk of damage to the work and surrounding area when installing insulation to suspended floors.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	5.2 Maintain a safe, clear and tidy work area.
	5.3 Explain why it is important to maintain a safe, clear and tidy work area
	5.4 Dispose of waste in accordance with current legislation.
	5.5 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.
	5.6 Explain why and how the disposal of waste must be carried out safely in accordance with the following: • current legislation • environmental responsibilities • organisational procedures

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
	• suppliers and manufactures' information • data sheets • statutory regulations • official guidance
6 Complete the work within the allocated time when installing insulation to suspended floors.	6.1 Demonstrate completion of your work within the estimated, allocated time and performance requirements of the system design, method statement and the required standard.
	6.2 Describe the purpose of the work programme, including the estimated and allocated time and explain why deadlines should be kept in relation to: • types of progress charts, timetables and estimated times • organisational procedures for reporting circumstances which will affect the work programme

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Comply with the given contract information to carry out the work efficiently to install insulation to suspended floors to the required specification.	7.1 Demonstrate the following work skills when installing insulation to suspended floors: • measuring • marking out • cutting • fitting • positioning • securing • making good
	7.2 Use and maintain all work tools and equipment.
	7.3 Carry out external and internal pre-installation check, assessing, recording and reporting issues to include: • suitable access • property suitability • structural integrity • dampness • decay • vents and ventilation • services (gas, electric, water, media cables)
	7.4 Recognise, record and report the key issues that may inhibit commencement of the work including but not limited to: • condition of building fabric • identification of any areas of potential water penetration • visibility and completeness of damp proof course • condition of window and door seals • height of internal floors in relation to finished ground level • drainage and down pipes • protection and existence of sub floor ventilation
	7.5 Identify the potential risk of increased condensation following installation relating to suspended floors and how to prevent it.
	7.6 Check, record and report issues with under floor (cross flow) ventilation, flues, chimneys and combustion air ventilators pre and post installation.
	7.7 Prepare floor for insulation creating access points taking into consideration the following but not limited to: • safe systems of work • minimising damage • checking existing services • building construction and heritage significance • customer safety
	7.8 Install placed, mechanically or adhesively fixed insulation to suspended floors**.**
	7.9 Check for hidden utilities.
	7.10 Maintain integrity of membranes.

	7.11	Remove and minimise damage to floorcoverings.
	7.12	Ensure the minimum void area air space is maintained by removing debris.
	7.13	Clear and safeguard existing and install additional in accordance with the design and installation checks and report back issues which impact the ventilation assessment.
	7.14	Protect the building occupants and their property.
	7.15	Confirm pre-installation material checks are within specified parameters to include checking and reporting defects.
	7.16	Rectify defects in preparation of insulation measures.
	7.17	Maintain existing sound-proofing.
	7.18	Install and maintain fire resistant barriers.
	7.19	Carry out post installation checks in accordance with the design, method statement and installations operations manual and report issues to include but not limited to safeguarding the combustion ventilation and report defects.
	7.20	Provide post installation advice and guidance to building occupants including homeowner packs.
	7.21	Handover and sign off to the customers satisfaction.
	7.22	Work at height using access equipment.
	7.23	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: • 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: - suitable access - property suitability - structural integrity - dampness - decay - vents and ventilation - services (gas, electric, water, media cables) • how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to: - condition of building fabric - identification of any areas of potential water penetration

	- visibility and completeness of damp proof course - condition of window and door seals - height of internal floors in relation to external floor height - condition of roof - damaged and spalled brickwork - rain and waste water goods - protection and existence of sub floor ventilation - wall cavity width and identification of any debris • why it is important to ensure that all necessary repairs are completed prior to installation • how to identify when specialist skills and knowledge are required and report accordingly including but not limited to: - fire safety - electrical - asbestos - Radon - heritage - archaeological and architectural features - ecology - ventilation - exposure and topography • 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 to identify, record, report and rectify unintended consequences not addressed in the design, including but not limited to the existence of: thermal bridges, thermal bypassing and water ingress, inadequate ventilation and condensation risk • why it is important to avoid unintended consequences • how to check, record and report issues with under floor (cross flow) ventilation, flues, chimneys and combustion air ventilators pre and post installation • why it is important to explain installation procedure to building occupants to include but not limited to the following: - scope and work programme - safety requirements during the installation process - protection of property and personal items - specific benefits and implications to include homeowner information - agreed standards of making good • the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to: - timber treatments - replacement wall ties - injected damp proof course - under floor and central heating systems - Radon barriers

	- electrical wiring - services • how to identify and follow the installation quality requirements • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • why it is important to recognise the potential risk of increased condensation following installation relating to suspended floors and how to prevent it • how to prepare a floor for insulation, creating access points taking into consideration the following but not limited to: - safe systems of work - minimising damage - checking existing services - building construction and heritage significance - customer safety - archaeology • how to check for hidden utilities • the importance of ensuring all work to services (gas, electric, water) is carried out by suitably qualified people • how to maintain the integrity of membranes • how to remove and minimise damage to floorcoverings • why it is important to ensure the minimum void area air space is maintained by removing debris as required • why it is important to clear and safeguard existing and install additional ventilation if required in accordance with the design and installation checks and report back issues which impact the ventilation assessment • how to protect the building occupants and their property • how to install placed, mechanically or adhesively fixed insulation to suspended floors • the different types of air and vapour control layers and breather membranes, where and how they should be used and why it is important to install them correctly • the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity • why it is important to immediately record and report unforeseen events including but not limited to equipment malfunctions, situations and faults not identified in the original design • how to ensure pre-installation material checks are within specified parameters and reporting defects • how to ensure existing cross flow ventilation is maintained within the floor void • how to maintain existing sound-proofing • how to install and maintain fire resistant barriers

		• why it is important to minimise thermal bridging through compliance with design detail ensuring a consistent level of insulation to the area being insulated • why it is important to complete post installation checks in accordance with the design, method statement and installations operations manual and report issues to include but not limited to safeguarding the combustion ventilation and report defects • why it is important to provide post installation advice and guidance to building occupants including homeowner packs • how to handover and sign off to the customers satisfaction • how to use all work tools and equipment • how to work at height using access equipment • how and why maintenance of all work tools and equipment is carried out
	7.24	Describe the needs of other occupations and the importance of team work and communication when installing insulation to suspended floors.

Title:	Installing insulation to floors in the workplace
Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated.
Sector Subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	90
Assessment	10

Title:	Spraying insulation to suspended floors in the workplace
Unit Number:	J/618/5682

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Interpret the given design information relating to the work and resources to confirm its accuracy, completeness and relevance to the building type, fabric and condition when spraying insulation to suspended floors.	1.1 Interpret and extract relevant information from: • 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 Describe why the organisational procedures have been developed and how they are implemented.
	1.4 Explain the importance of organisational procedures to solve problems and why it is important to follow them.
	1.5 Describe different types of information, their source, accuracy, completeness and how they are interpreted in relation to: • drawings • specifications • schedules • method statements • risk assessments • design • standards • manufacturers' information • data sheets • official guidance • current legislation and regulations governing buildings

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
2 Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when spraying insulation to suspended floors.	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to: • the workplace • below ground level • in confined spaces • at height • tools and equipment • materials and substances • movement and storage of materials by manual handling and mechanical lifting
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to: • site • workplace • siting and location of vehicles • company • customer • access equipment • material and waste storage • the general public
	2.3 Explain the accident reporting procedures and who is responsible for making reports.
	2.4 Describe the types of fire extinguishers available when spraying insulation to suspended floors and describe how and when they are used in relation to: • water • CO_2 • foam • powder

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
3 Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.	3.1 Demonstrate compliance with relevant legislation, standards and official guidance when spraying insulation to suspended floors in relation to the following: • methods of work • safe use of health and safety control equipment • safe use of access equipment • safe use, storage and handling of materials, tools and equipment • operative maintenance of installation equipment • specific risks to health including mental health • specific risks associated with ventilation (inside the property and under floor) and also including combustion appliances • specific risks associated with working in confined spaces
	3.2 Explain why, when and how health and safety control equipment, identified by the principles of prevention, should be used when spraying insulation to suspended floors in relation to: • collective protective measures • personal protective equipment (PPE) • respiratory protective equipment (RPE) • local exhaust ventilation (LEV)
	3.3 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to: • fires • spillages • injuries • emergencies relating to occupational activities • identification of and reporting of asbestos containing materials
	3.4 Describe how to report risks and hazards identified by the following: • risk assessment • personal assessment • methods of work • manufacturers' technical information • data sheets • statutory regulations

Continued……		• official guidance • Control of Substances Hazardous to Health (COSHH)
4 Select the required quantity and quality of resources for the methods of work to spray insulation to suspended floors.	4.1	Select resources associated with own work in relation to materials, components and finishes, tools and equipment.
	4.2	Check the suitability, compatibility and characteristics of the materials, components and finishes, determine if they are moisture open or moisture closed and their impact on the building.
	4.3	Record and report issues or defects.
	4.4	Describe why the characteristics, compatibility, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be rectified.
	4.5	Describe how the resources should be used and how problems associated with the resources are reported in relation to: • protective sheeting • warning signs • temporary barriers • making good materials • filling materials • sealants • installation equipment • all work tools
	4.6	Describe how to confirm that the resources and materials conform to the specification.
	4.7	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
	4.8	Describe how to identify the hazards associated with the resources and methods of work and how they are overcome.
	4.9	Describe how to calculate the quantity of materials required and used to ensure adequacy of fill as per the system designer specification and wastage associated with the method and procedure to spray insulation to suspended floors.

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
5 Minimise the risk of damage to the work and surrounding area when spraying insulation to suspended floors.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	5.2 Maintain a safe, clear and tidy work area.
	5.3 Explain why it is important to maintain a safe, clear and tidy work area.
	5.4 Dispose of waste in accordance with current legislation.
	5.5 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.
	5.6 Explain the importance of protecting the work and its surrounding area against the risk of damage.
	5.7 Explain why and how the disposal of waste must be carried out safely in accordance with the following: • current legislation • environmental responsibilities • organisational procedures • manufacturers' information • data sheets • statutory regulations • official guidance
6 Complete the work within the allocated time when spraying insulation to suspended floors.	6.1 Demonstrate completion of your work within the estimated, allocated time and performance requirements of the system design, method statement and the required standard.
	6.2 Describe the purpose of the work programme, including the estimated and allocated time and explain why deadlines should be kept in relation to: • types of progress charts, timetables and estimated times • organisational procedures for reporting circumstances which will affect the work programme

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Comply with the given contract information to carry out the work efficiently to spray insulation to suspended floors to the required specification.	7.1 Demonstrate the following work skills when spraying insulation to suspended floors: • measuring • marking out • calculating • cutting • fitting • filling • positioning and securing • making good
	7.2 Use and maintain all work tools and installation equipment.
	7.3 Carry out external and internal pre installation checks assessing, recording and reporting issues to include: • suitable access • property suitability • structural integrity • dampness • decay • vents and ventilation • services (gas, electric, water, media cables)
	7.4 Recognise, record and report the key issues that may inhibit commencement of the work including but not limited to: • condition of building fabric • identification of any areas of potential water penetration • visibility and completeness of damp proof course • condition of window and door seals • height of internal floors in relation to external floor height • drainage and down pipes • protection and existence of sub floor ventilation
	7.5 Identify the potential risk of increased condensation following installation relating to suspended floors and how to prevent it.
	7.6 Check, record and report issues with under floor (cross flow) ventilation, flues, chimneys and combustion air ventilators pre and post installation.
	7.7 Prepare floor for insulation creating access points taking into consideration the following but not limited to: • safe systems of work

		• minimising damage • checking existing services • building construction and heritage significance • customer safety
	7.8	Check for hidden utilities.
	7.9	Maintain integrity of membranes.
	7.10	Remove and minimise damage to floorcoverings.
	7.11	Ensure the minimum void area air space is maintained by removing debris.
	7.12	Clear and safeguard existing and install additional ventilation in accordance with the design and installation checks and report back issues which impact the ventilation assessment.
	7.13	Protect the building occupants and their property.
	7.14	Confirm pre-installation material checks are within specified parameters to include checking and reporting defects.
	7.15	Rectify defects in preparation of insulation measures.
	7.16	Assemble, operate, clean and disassemble installation processing equipment.
	7.17	Calibrate equipment to measure density, flow and quality tests.
	7.18	Spray insulation to suspended floors.
	7.19	Maintain existing sound-proofing.
	7.20	Install and maintain fire resistant barriers.
	7.21	Complete post installation checks in accordance with the design, method statement and installations operations manual and report issues to include but not limited to safeguarding the combustion ventilation and report defects.
	7.22	Provide post installation advice and guidance to building occupants including homeowner packs.
	7.23	Handover and sign off to the customers satisfaction.
	7.24	Clean and disassemble installation processing equipment and pack away for transportation.
	7.25	Work at height using access equipment

7	Comply with the given contract information to carry out the work efficiently to spray insulation to suspended floors to the required specification.	7.26	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: • 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: - suitable access - property suitability - structural integrity - dampness - decay - vents and ventilation - services (gas, electric, water, media cables) • why it is important to ensure that all necessary repairs are completed prior to installation • how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to: - condition of building fabric identification of any areas of potential water penetration - visibility and completeness of damp proof course - condition of window and door seals - height of internal floors in relation to external floor height - condition of roof - damaged or spalled brickwork - rain and waste water goods - protection and existence of sub floor ventilation - cavity width and identification of any debris • how to identify when specialist skills and knowledge are required and report accordingly including but not limited to: - fire safety - electrical - asbestos - Radon - heritage - archaeological and architectural features

	- ecology - ventilation - exposure & topography • 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 to identify, record, report and rectify unintended consequences not addressed in the design, including but not limited to the existence of: thermal bridges, thermal bypassing and water ingress, inadequate ventilation and condensation risk • why it is important to avoid unintended consequences • how to check, record and report issues with under floor (cross flow) ventilation, flues, chimneys and combustion air ventilators pre and post installation • why it is important to explain installation procedure to building occupants to include but not limited to the following: - scope and work programme - safety requirements during the installation process - protection of property and personal items specific benefits and implications to include homeowner information - agreed standards of making good • the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to: - timber treatments - replacement wall ties - injected damp proof course - under floor and central heating systems - Radon barriers - electrical wiring - services • how to identify and follow the installation quality requirements • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • why it is important to recognise the potential risk of increased condensation following installation relating to suspended floors and how to prevent it • how to prepare a floor for insulation, creating access points taking into consideration the following but not limited to: - safe systems of work

	- minimising damage - checking existing services - building construction and heritage significance - customer safety - archaeology • how to check for hidden utilities • the importance of ensuring all work to services (gas, electric, water) is carried out by suitably qualified people • how to maintain integrity of membranes • how to remove and minimise damage to floorcoverings • why it is important to ensure the minimum void area air space is maintained by removing debris as required • why it is important to clear and safeguard existing and install additional ventilation if required in accordance with the design and installation checks and report back issues which impact the ventilation assessment • how to protect the building occupants and their property • how to assemble, operate, clean and disassemble installation processing equipment • how to calibrate equipment to measure density, flow and quality tests • how to spray insulation to suspended floors • how to ensure pre-installation material checks are within specified parameters to include checking and recording batch number and reporting defects • the different types of air and vapour control layers and breather membranes , where and how they should be used and why it is important to install them correctly • the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity • why it is important to immediately record and report unforeseen events including but not limited to equipment malfunctions, situations and faults not identified in the original design • how to ensure existing cross flow ventilation is maintained within the floor void • how to maintain existing sound-proofing • how to install and maintain fire resistant barriers • why it is important to minimise thermal bridging through compliance with design detail ensuring a consistent level of insulation of the area being insulated • why it is important to complete post installation checks in accordance with the design, method statement and installations operations manual and report issues to

	include but not limited to safeguarding the combustion ventilation and report defects • why it is important to provide post installation advice and guidance to building occupants including homeowner packs • how to handover and sign off to the customers satisfaction • how to clean and disassemble installation processing equipment and pack away for transportation • how to use all work tools and installation equipment in line with manufacturers and system specifications • how to work at height using access equipment and harness systems • how and why maintenance of all work tools and installation equipment is carried out
	7.27 Describe the needs of other occupations and the importance of team work and communication when spraying insulation to suspended floors.

Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated.
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	100
Assessment	10

Title:	Installing insulation to cold roofs in the workplace
Unit Number:	K/618/5674

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Interpret the given design information relating to the work and resources to confirm its accuracy, completeness and relevance to the building type, fabric and condition when installing insulation to cold roofs.	1.1 Interpret and extract relevant information from: • 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 Describe why the organisational procedures have been developed and how they are implemented.
	1.4 Explain the importance of organisational procedures to solve problems and why it is important to follow them.
	1.5 Describe different types of information, their source, accuracy, completeness and how they are interpreted in relation to: • drawings • specifications • schedules • method statements • risk assessments • design • standards • manufacturers' information • data sheets • official guidance • current legislation and regulations governing buildings

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
2 Know how to comply with environmentally responsible work practices to meet current legislation standards and official guidance when installing insulation to cold roofs.	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to: • the workplace • below ground level • confined spaces • at height • tools and equipment • materials and substances • movement and storage of materials by manual handling and mechanical lifting
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to: • site • workplace • siting and location of vehicles • company • customer • assess equipment • materials and waste storage • the general public
	2.3 Explain the accident reporting procedures and who is responsible for making reports.
	2.4 Describe the types of fire extinguishers available when installing to cold roofs and describe how and when they are used in relation to: • water • CO_2 • foam • powder

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
3 Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices	3.1 Demonstrate compliance with, relevant legislation, standards and official guidance when installing insulation to cold roofs in relation to the following: • methods of work • safe use of health and safety control equipment • safe use of access equipment and harness systems • safe use, storage and handling of materials, tools and equipment • specific risks to health including mental health • specific risks associated with ventilation (roof space, inside the property and under floor) and combustion appliances
	3.2 Explain why, when and how health and safety control equipment, identified by the principles of prevention, should be used when installing insulation to cold roofs in relation to: • collective protective measures • personal protective equipment (PPE) • respiratory protective equipment (RPE) • local exhaust ventilation (LEV)
	3.3 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to: • fires • spillages • injuries • emergencies relating to occupational activities • identification of and reporting of asbestos containing materials
	3.4 Describe how to report risks and hazards identified by the following: • risk assessment • personal assessment • methods of work • manufacturers' technical information • data sheets • statutory regulations • official guidance • Control of Substances Hazardous to Health (COSHH)

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*	
4 Select the required quantity and quality of resources for the methods of work to install insulation to cold roofs.	4.1	Select resources associated with own work in relation to materials, components, fixings, finishes, tools and equipment.
	4.2	Check the suitability, compatibility characteristics of the materials, components, fixing and finishes determine if they are moisture open or moisture closed and their impact on the building.
	4.3	Record and report issues or defects
	4.4	Describe why the characteristics, compatibility, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be rectified.
	4.5	Describe how the resources should be used and how problems associated with the resources are reported in relation to: • protective sheeting • warning signs • temporary barriers • insulation • pipe insulation • tank and cylinder jackets • insulation fixings • access boards • loft hatches • light wells • soffit and fascia boards • tile vents • ridge tiles • sarking felt vents • draught-proofing materials • fire rated caps • cable protection • all work tools , equipment
	4.6	Describe how to confirm that the resources and materials conform to the specification
	4.7	Explain why the organisational procedures have been developed and how they are used for the selection of required resources
	4.8	Describe how to identify the hazards associated with the resources and methods of work and how they are overcome
	4.9	Describe how to calculate the quantity of materials required and used to ensure, adequacy of fill as per system designer specification and wastage associated with the method and procedure to install insulation to cold roofs

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
5 Minimise the risk of damage to the work and surrounding area when installing insulation to cold roofs.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures
	5.2 Maintain a safe, clear and tidy work area
	5.3 Explain why it is important to maintain a safe, clear and tidy work area
	5.4 Dispose of waste in accordance with current legislation.
	5.5 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
	5.6 Explain the importance of protecting the work and its surrounding area against the risk of damage
	5.7 Explain why and how the disposal of waste must be carried out safely in accordance with the following: • current legislation • environmental responsibilities • organisational procedures • manufacturers' information • data sheets • statutory regulations • official guidance
6 Complete the work within the allocated time when installing insulation to cold roofs.	6.1 Demonstrate completion of your work within the estimated, allocated time and performance requirements of the system design, method statement and the required standard
	6.2 Describe the purpose of the work programme, including the estimated and allocated time and explain why deadlines should be kept in relation to: • types of progress charts, timetables and estimated times • organisational procedures for reporting circumstances which will affect the work programme.

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Comply with the given contract information to carry out the work efficiently to install insulation to cold roofs to the required specification.	7.1 Demonstrate the following work skills when installing insulation to cold roofs • measuring • marking out • calculating • cutting • fitting • filling • positioning • securing • making good
	7.2 Use and maintain all work tools and equipment
	7.3 Carry out external and internal pre installation checks assessing, recording and reporting issues to include: • suitable access • property suitability • structural integrity • dampness • decay • vents and adequate ventilation • services (gas, electric, water, media cables)
	7.4 Prepare and install insulation to cold roofs using at least one of the following methods in compliance with current regulations and to given working instructions: • placed • mechanically or adhesively fixed
	7.5 Prepare and install insulation to the following in compliance with current regulations and to given working instructions: • pipes • tanks and/or cylinders • access hatches • light wells
	7.6 Protect electrical services, lighting, media, high amperage cables
	7.7 Create and protect platforms and walkways for access and storage.
	7.8 Remove and secure building occupants stored items.
	7.9 Install passive ventilation and safe guarding existing ventilation.
	7.10 Insulate and draught-proof access hatches.

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Continued…	7.11 Insulate light wells.
	7.12 Minimise the effects of thermal bridging.
	7.13 Carry out post installation checks to ensure insulation complies with the design.
	7.14 Provide post installation advice and guidance to building occupants including homeowner packs.
	7.15 Hand over and sign off to the customers satisfaction.
	7.16 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: • 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: - common infestations - protected species - suitable access - property suitability - structural integrity - dampness - decay - vents and ventilation - services (gas, electric, water, media cables) • why it is important to ensure that all necessary repairs are completed prior to installation • how and why it is important to check, record and report issues with construction ventilation, flues, chimneys and combustion air ventilators pre and post installation • how to identify and follow the installation quality requirements • how to recognise, record and report the key issues

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Continued…	• that may inhibit commencement of the work including but not limited to: - condition of building fabric - identification of any areas of potential water penetration - condition of roof - drainage and down pipes • how to identify when specialist skills and knowledge are required and report accordingly including but not limited to: - fire safety - electrical - asbestos - Radon - heritage - architectural features - ecology - ventilation • the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional (pre 1919) construction, hard-to-treat buildings and historical significance • how to identify, record, report and rectify unintended consequences not addressed in the design, including but not limited to the existence of: thermal bridges, thermal bypassing and water ingress, inadequate ventilation and condensation risk • why it is important to avoid unintended consequences • why it is important to explain installation procedure to building occupants to include but not limited to the following: - scope and work programme - safety requirements during the installation process - protection of property and personal items - specific benefits and implications to include homeowner information - agreed standards of making good • the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to: - roof skylights - loft guarantees - building warranties

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Continued…	- timber treatment • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to work in confined spaces • how to create and protect platforms and walkways • why it is important to identify and remove infested, damaged and contaminated insulation from the roof area • how to remove and secure building occupants stored items • how to identify and install passive ventilation and report any ventilation limitations identified • why it is important to recognise and report the potential risk of increased condensation following installation relating to roof coverings (pitched and flat) and roof structures (timber, metal, concrete) • the importance of ensuring all work to services (gas, electric, water, media cables) is carried out by suitably qualified people • how to check for and protect hidden utilities • how to identify insulation materials and their characteristics for cold roofs, pipes, storage tanks, cylinders and access hatches • how to prepare and install, placed, mechanically or adhesively fixed insulation to cold roofs • why it is important to minimise the effects of thermal bridging through compliance with design detail ensuring consistent insulation of the area being insulated • how to check serviceability and provision of walkway boards and platforms • how to prepare and fix pipe, tank and cylinder insulation • how to ensure the insulation is contained within the prescribed areas • how to protect downlighters by installation of fire rated caps to the required specification • how to ensure insulation around electrical apparatus will not create fire hazards (light fittings, electrical units and cables) • how to insulate and draught-proof access hatches • how to Insulate light wells to ensure continuity of

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Continued…	insulation • how to maintain fire resistant barriers • the different types of air and vapour control layers and breather membranes, where and how they should be used and why it is important to install them correctly • the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity • why it is important to immediately record and report unforeseen events including but not limited to equipment malfunctions, situations and faults not identified in the original design • why it is important to complete post installation checks in accordance with the design, method statement and installations operations manual and report issues to include but not limited to safeguarding the combustion ventilation and report defects • why it is important to provide advice to building occupants to preserve the integrity of the insulation (insulation data sheet and warning labels) • how to handover and sign off to the customers' satisfaction • how to use all work tools and equipment • how to work at height using access equipment and harness systems • how and why maintenance of all work tools and equipment is carried out
	7.17 Describe the needs of other occupations and the importance of team work and communication when installing insulation to cold roofs.

Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated. This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	90
Assessment	10

Title:	Erecting and dismantling access/working platforms in the workplace
Unit Number:	A/615/1609

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Interpret the given information relating to the work and resources when erecting and dismantling access/working platforms.	1.1 Interpret and extract information from specifications, method statements, risk assessments and manufacturers' information.
	1.2 Comply with information and/or instructions derived from risk assessments and method statement.
	1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.
	1.4 Describe different types of information, their source and how they are interpreted in relation to: – specifications, current legislation, method statements, risk assessments and manufacturers' information.
2 Know how to comply with relevant legislation and official guidance when erecting and dismantling access/working platforms.	2.1 Describe their responsibilities under current legislation and official guidance whilst working: – in the workplace, at height, in confined areas, with tools and equipment, with movement/storage of materials and by manual handling.
	2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
	2.3 State what the accident reporting procedures are and who is responsible for making reports.
3 Maintain safe working practices when erecting and dismantling access/working platforms.	3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when erecting and dismantling access/working platforms.
	3.2 Explain why, when and how personal protective equipment (PPE) should be used, relating to erecting and dismantling access/working platforms, and the types, purpose and limitations of each type.
	3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards.

Title:	Erecting and dismantling access/working platforms in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
4 Select the required quantity and quality of resources for the methods of work to erect and dismantle access/working platforms.	4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to: – ladders/crawler boards – stepladders/platform steps – trestles – proprietary staging/podiums – proprietary towers – mobile scaffold towers – protection equipment and notices – tools and ancillary equipment.
	4.2 Select resources associated with own work in relation to materials, components, tools and equipment.
	4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used.
	4.4 Outline potential hazards associated with the resources and method of work.
	4.5 Describe how to calculate quantity of equipment required associated with the method/procedure to erect and dismantle access equipment/working platforms.
5 Minimise the risk of damage to the work and surrounding area when erecting and dismantling access/working platforms.	5.1 Protect the work and its surrounding area from damage.
	5.2 Minimise damage and maintain a clean work space.
	5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
	5.4 Dispose of waste in accordance with legislation.
	5.5 State why the disposal of waste should be carried out in relation to the work.
6 Complete the work within the allocated time when erecting and dismantling access/working platforms.	6.1 Demonstrate completion of the work within the allocated time.
	6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: – organisational procedures for reporting circumstances which will affect the work programme.

Title:	Erecting and dismantling access/working platforms in the workplace
Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
7 Comply with the given contract information to erect and dismantle access/ working platforms to the required specification.	7.1 Demonstrate the following work skills when erecting and dismantling access/working platforms: – moving, positioning/erecting, securing, checking, dismantling and removing.
	7.2 Erect, dismantle and store two of the following access equipment to given access regulations: – ladders/crawler boards – stepladders/platform steps – proprietary towers – trestle platforms – mobile scaffold towers – proprietary staging/podiums.
	7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to: – provide protection to the work area – establish a base for equipment – erect proprietary access equipment to manufacturer's instructions suitable for the work – erect non-proprietary access equipment suitable for the work – place protective screens and notices – check/monitor equipment during the period of use – dismantle and store access equipment – use tools and equipment – work at height.
	7.4 Safely use and store materials, hand tools and ancillary equipment.
	7.5 State the needs of other occupations and how to communicate within a team when erecting and dismantling access/working platforms.
	7.6 Describe how to maintain the tools and equipment used when erecting and dismantling access/working platforms.

Title:	Erecting and dismantling access/working platforms in the workplace
Additional information about this unit	
Assessment Guidance	This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. 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. Workplace evidence of skills cannot be simulated. This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. <u>ProQual Level 2 NVQ Diploma in Insulation and Building Treatments (Construction):</u> The following endorsement required (i.e. own area of work) Insulation and building treatments **Plus two** of the following endorsements required: Ladders/crawler boards Step ladders/platform steps Proprietary towers Trestle platforms Mobile scaffold towers Proprietary staging/podiums
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	27

Title:	Develop customer relationships
Unit Number:	T/618/5676

Learning outcomes *The learner will be able to:*	**Assessment criteria** *The learner can:*
1 Build their customer's confidence that the service they give will be excellent	1.1 show that they behave assertively and professionally with customers
	1.2 allocate the time they take to deal with their customer following organisational guidelines
	1.3 reassure their customer that they are doing everything possible to keep the service promises made by the organisation
2 Meet the expectations of their customers	2.1 recognise when there may be a conflict between their customer's expectations and your organisation's service offer
	2.2 balance their customer's expectations with their organisation's service offer by offering an alternative or explaining the limits of the service offer
	2.3 work effectively with others to resolve any difficulties in meeting their customer's expectations
3 Develop the long-term relationship between their customer and their organisation	3.1 give additional help and information to their customer in response to customer questions and comments about their organisation's services or products
	3.2 discuss expectations with their customer and explain how these compare with their organisation's services or products
	3.3 advise others of feedback received from their customer
	3.4 identify new ways of helping customers based on the feedback customers have given them
	3.5 identify added value that their organisation could offer to long-term customers
4 Know how to develop customer relationships	4.1 describe their organisation's services or products
	4.2 explain the importance of customer retention
	4.3 explain how their own behaviour affects the behaviour of the customer
	4.4 describe how to behave assertively and professionally with customers

	4.5	describe how to defuse potentially stressful situations
	4.6	identify the limitations of their organisation's service offer
	4.7	compare how customer expectations may change as the customer deals with their organisation
	4.8	identify the cost and resource implications of an extension of the service offer to meet or exceed customer expectations
	4.9	explain the cost implications of bringing in new customers as opposed to retaining existing customers
	4.10	identify who to refer to when considering any variation to their organisation's service offer

Title:	Develop customer relationships
Additional information about this unit	
Assessment Guidance	The assessment and quality assurance requirement for this unit provides evidence towards A and V units.
Sector Subject Area	5.2 Building and Construction
Availability for use	Shared unit
Unit review date	31.01.17
Unit credit value	6
Unit guided learning hours	40

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