QUALIFICATION LOGBOOK

Level 3 NVQ in Insulation and Building Treatments (Construction)

(5931)

October 2021 Version 1.0

Candidate Logbook / Work-based Evidence Record

City & Guilds
A City & Guilds Group Business

Date and version No.	Change detail	Section
October 2021 V1.0	Document created	All

Contents

1 About your candidate logbook/work-based evidence record

1.1 Contact details

Candidate name	
Candidate address	
Centre name	
Centre number	
Programme start date	
City & Guilds registration number	
Date of registration with City & Guilds	

This Candidate Logbook/Work-based Evidence Record is your personal achievement in practical work carried out mostly in the workplace and knowledge assessments achieved. It may not be possible to replace this document, therefore it should be kept in good condition and in a safe place to be used by you to record your progress.

Once completed, you must keep this portfolio for a period of three years. During this time your training centre can request that you submit your portfolio to them. This will be returned to you.

Keep a record of relevant contact details in the space provided below. You may find it helpful to make a note of phone numbers and e-mail addresses here.

Your Assessor(s)	
Internal Quality Assurer (IQA)	
External Quality Assurer (EQA)	

1.2 Introduction to the logbook

This logbook will help you complete your qualification. It contains:

- the units you need to achieve to complete your qualification
- information about your responsibilities as a candidate
- forms you can use to record and organise your evidence.

It will also tell you:

- about your qualification
- what you need to do to complete your qualification
- who will help you.

About City & Guilds

City & Guilds is your awarding body for this qualification. City & Guilds is the UK's leading awarding body for vocational qualifications.

Information about City & Guilds and our qualifications is available on our website **www.cityandguilds.com**.

2 About the qualification

The **Insulation and Building Treatments** qualifications are nationally recognised qualifications gained in the workplace. They are based on National Occupational Standards, which are standards written by employers and experts in your industry.

When you achieve your qualification, it will prove that you can work to the standards expected by employers in your industry. Your qualification will show you are competent to do a job and have the skills, knowledge and understanding needed to do it well.

This qualification is assessed in the workplace. You should be carrying out the type of work involved in this qualification or expect to carry out in the future. If you are not in work, your centre will need to arrange a work placement for your assessment.

3 About your approved centre

Types of approved centres

Assessment for your qualification will be carried out at your centre. Your centre may be your place of work, a college, training provider or a combination of these.

City & Guilds approves centres to offer their qualifications and regularly monitors them to make sure they meet our quality standards and follow our assessment policies.

Centre responsibilities

Your centre is responsible for the administration of your qualification. Centre staff will:

- register you with City & Guilds
- give you your City & Guilds enrolment number
- apply for your certificate(s) when you have completed your qualification or units.

Centres are also responsible for supporting you as your work towards your NVQ. Centres will:

- carry out an initial assessment with you
- tell you about any learning or training (and resources) you will need to help you complete your qualification
- provide an induction programme to explain how the assessment process works
- produce an assessment plan for you.

Assessment roles

The following people at your centre will help you achieve your qualification.

The Assessor

The assessor is the person you will have the most contact with as you work towards your qualification. Your assessor will:

- help you identify any training you need
- agree an assessment plan with you
- help you plan and organise your workload and evidence
- observe you carrying out your job in the workplace over a period of time
- ask you questions about the work you do
- make decisions about your evidence
- judge when you are competent and meet the national standards
- give you feedback about your evidence and competence.

You may have more than one assessor depending on which units of the qualification you take.

The Internal Quality Assurer (IQA)

The Internal Quality Assurer (IQA) maintains the quality of assessment within the centre.

The Work-based Recorder/Expert Witness

The role of the work-based recorder/expert witness is to:

- observe you carrying out work activities
- take photographs as evidence of work carried out
- authenticate work-based recordings and testimonies
- ensure all work meets current industrial standards
- ensure all work is carried out in a safe manner
- be in regular communication with your assessor to evaluate your performance on site
- try to make sure you get the relevant work experience needed to meet the criteria of your NVQ
- provide support, guidance and motivation to help you complete your NVQ successfully.

4 About candidates

Candidate role and responsibilities

Your responsibilities as a City & Guilds candidate are to:

- provide your centre with your personal details so you can be registered with City & Guilds
- participate in an initial assessment and induction
- agree a personal assessment plan with your assessor
- collect and organise your evidence as agreed in your assessment plan
- attend regular meetings with your assessor to discuss your progress and to amend your plan when required
- meet with other centre and City & Guilds staff to talk about your qualification and evidence
- make sure you understand and comply with health and safety law and regulations.

Your centre **may** ask you to agree and sign a learning contract with them to show how you will be assessed for your qualification.

Learner registration number

Make sure you keep a note of your unique City & Guilds registration number on the front page of this logbook.

Moving to a new centre

If you change jobs or move to a new centre before you complete your qualification, you may be able to complete it at a new centre. Ask your centre to apply for any certificates of unit credit for you before you leave and add them to your records.

A new centre will need your candidate enrolment number, your assessment records and evidence to help you complete your qualification.

5 Qualification assessment

5.1 Before you start your qualification

Initial assessment

Before you start work on your qualification you will meet with your assessor to discuss what you need to do to complete your qualification. This can include:

- checking you are taking the right qualification level
- checking you have chosen suitable units
- identifying any training or learning you will need to help you gain your qualification
- agreeing an assessment plan
- signing a learning contract.

Skill scan

As part of this meeting, you will discuss the skills and knowledge you may already have and decide how this can be used towards your qualification. This process is sometimes called a skill scan. There is a Skill Scan Form in this logbook you can use to record the skills you may already have.

5.2 The assessment process

Once you have chosen your units you will make and agree an assessment plan with your assessor. This will show:

- the units the plan covers
- when you will be assessed
- where the assessment will take place
- what you will be doing
- what evidence you will produce
- who will assess you.

The plan should also indicate the methods of assessment to be used to collect your evidence.
Evidence can include:

- direct observation in the workplace by a qualified assessor
- witness testimony of work carried out by you in the workplace written by an expert witness
- questioning – this could be verbal, written or computer based
- other evidence which can include photographs or personal accounts.

Assessment requirements
Site Observations (SO) should be conducted in the workplace by your Assessor. For individual criteria not directly observed, evidence of your ability to complete a number of different tasks to confirm competence must be recorded.

Types of evidence
SO = Site Observation
OQ = Oral Question
WQ = Written Question and Answer
WT = Witness Testimony
PS = Photographic Supplementary
PD = Professional Discussion

The following people at your centre will explain the assessment and recording process and help you achieve your unit(s).

The assessor/tutor
The assessor/tutor is the person you will have the most contact with as you work towards your unit(s). Depending on which unit(s) you take, you may have more than one assessor/tutor or be assessed by a person who is not your tutor.

The Internal Quality Assurer (IQA)
The IQA maintains the quality of assessment within the centre.

The External Quality Assurer (EQA)
The EQA works for City & Guilds and helps to ensure that your centre meets the required standards for quality and assessment.

6 Using your logbook

Recording forms
This logbook contains all of the forms you and your assessor will need to plan, review and organise your evidence. Your assessor will be able to help you decide which forms you need to complete and help you fill them in.

Candidate job profile
You can use this form to record your personal details if you don't already have a Candidate Résumé/ CV.

Skill scan/Initial assessment
This can be used to record the skills and knowledge you may already have. This may be part of your initial assessment.

Overall unit sign-off
You can use this form to log your achievement of the units for the whole qualification including completion of assignments and online assessment

On-site assessment plan/feedback
You and your assessor will use this form to plan each assessment session. Your assessor will use this form to give feedback on the task. It will also enable you and your assessor to plan what actions need to be done before the next session.

On-site observation report
Your assessor will complete during observation. You will both sign this as a true record.

Professional discussion supplementary evidence sheet
To be completed by you, your work-based recorder or another witness to evidence meeting assessment criteria that could not be signed off during direct observation with your assessor.

Oral questioning supplementary evidence sheet
Your assessor will use this form to log any additional questions and answers asked during observation or to mop up any missing evidence.

Photographic supplementary evidence
Use this form to include a photo and brief description of the task being carried out.

Work-based recorder details
To be completed by your work-based recorders to confirm occupational competence.

Assessor briefing and report continuation sheet
Additional space for your assessor to make notes

Signature sheet
This is used to record the details of staff that will provide you with witness testimony.

Units

These record where the evidence you produce meets the requirements of the unit. You should give each piece of evidence an evidence reference number.

Please photocopy these forms as many times as required to log the evidence.

6.1 Candidate job profile

If you already have your own CV you can use that instead of this form.

Candidate name:	
Place of work:	
Assessor:	

Outline of job role:

Previous roles and responsibilities relevant to the qualification:

Previous qualification and training relevant to the qualification:

Qualification/Training	Where achieved	Date achieved	Grade

Units

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Room in Roof (Construction) (5931-51)** learners must achieve all the mandatory units listed below, plus **two** units from the additional mandatory units, plus **one** unit from Group A and **one** unit from Group B optional units.

Learners can also undertake the additional unit 265; however, the completion of this unit will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit Level
Mandatory		
102	Conforming to general health, safety and welfare in the workplace	1
300	Confirming work activities and resources for an occupational work area in the workplace	3
502	Developing and maintaining good occupational working relationships in the workplace	3
303	Confirming the occupational method of work in the workplace	3
242	Insulation and building treatments, building construction, defects and interfaces	3
Additional mandatory	**Two units required**	
270	Installing internal insulation to walls in the workplace	3
271	Installing insulation to framed sections of buildings in the workplace	3
269	Injecting, blowing or spraying insulation to framed sections of buildings in the workplace	3
Optional Group A	**One unit required**	
238	Installing insulation to cold roofs in the workplace	2
273	Installing blown insulation to cold roofs in the workplace	2
266	Develop customer relationships	2

Optional Group B	One unit required	
274	Installing insulation to create warm roofs in the workplace	3
275	Spraying insulation to create warm roofs in the workplace	3
266	Develop customer relationships	2
Additional (not compulsory)		
265	Erecting and dismantling access/working platforms in the workplace	2

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Park Homes (Construction) (5931-52)** learners must achieve all the mandatory units listed below, plus **one** unit from the additional mandatory units, and **one** unit from the optional units.

Learners can also undertake the additional unit 265; however, the completion of this unit will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit Level
Mandatory		
102	Conforming to general health, safety and welfare in the workplace	1
300	Confirming work activities and resources for an occupational work area in the workplace	3
502	Developing and maintaining good occupational working relationships in the workplace	3
303	Confirming the occupational method of work in the workplace	3
276	Installing external wall insulation in the workplace	3
277	Park homes insulation	3
242	Insulation and building treatments, building construction, defects and interfaces	3
Addional mandatory	**One unit required**	
243	Installing insulation to suspended floors in the workplace	2
244	Spraying insulation to suspended floors in the workplace	2
Optional	**One unit required**	
238	Installing insulation to cold roofs in the workplace	2
273	Installing blown insulation to cold roofs in the workplace	2
266	Develop customer relationships	2
Additional (not compulsory)		
265	Erecting and dismantling access/working platforms in the workplace	2

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Hybrid Wall (Construction) (5931-53)** learners must achieve all the mandatory units listed below, plus **one** unit from the additional mandatory units.

Learners can also undertake the additional units 265, 266 and 278; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit Level
Mandatory		
102	Conforming to general health, safety and welfare in the workplace	1
300	Confirming work activities and resources for an occupational work area in the workplace	3
502	Developing and maintaining good occupational working relationships in the workplace	3
303	Confirming the occupational method of work in the workplace	3
276	Installing external wall insulation in the workplace	3
242	Insulation and building treatments, building construction, defects and interfaces	3
Additional mandatory	**One unit reqired**	
270	Installing internal insulation to walls in the workplace	3
272	Injecting, blowing and spraying insulation to internal walls in the workplace	3
Additional (not compulsory)		
265	Erecting and dismantling access/working platforms in the workplace	2
278	Applying surface finishes to external wall insulation in the workplace	3
266	Develop customer relationships	2

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Insulating Framed Sections of Buildings (Construction) (5931-54)** learners must achieve all the mandatory units listed below, plus **one** unit from the additional mandatory units.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit Level
Mandatory		
102	Conforming to general health, safety and welfare in the workplace	1
300	Confirming work activities and resources for an occupational work area in the workplace	3
502	Developing and maintaining good occupational working relationships in the workplace	3
303	Confirming the occupational method of work in the workplace	3
242	Insulation and building treatments, building construction, defects and interfaces	3
Additional mandatory	**One unit required**	
271	Installing insulation to framed sections of buildings in the workplace	3
269	Injecting, blowing or spraying insulation to framed sections of buildings in the workplace	3
Additional (not compulsory)		
265	Erecting and dismantling access/working platforms in the workplace	2
266	Develop customer relationships	2

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – External Wall Insulation – Boarder (Construction) (5931-55)** learners must achieve all the mandatory units listed below.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit Level
Mandatory		
102	Conforming to general health, safety and welfare in the workplace	1
300	Confirming work activities and resources for an occupational work area in the workplace	3
502	Developing and maintaining good occupational working relationships in the workplace	3
303	Confirming the occupational method of work in the workplace	3
276	Installing external wall insulation in the workplace	3
242	Insulation and building treatments, building construction, defects and interfaces	3
Additional (not compulsory)		
265	Erecting and dismantling access/working platforms in the workplace	2
266	Develop customer relationships	2

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – External Wall Insulation – Finisher (5931-56)** learners must achieve all the mandatory units listed below.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit Level
Mandatory		
102	Conforming to general health, safety and welfare in the workplace	1
300	Confirming work activities and resources for an occupational work area in the workplace	3
502	Developing and maintaining good occupational working relationships in the workplace	3
303	Confirming the occupational method of work in the workplace	3
278	Applying surface finishes to external wall insulation in the workplace	3
242	Insulation and building treatments, building construction, defects and interfaces	3
Additional (not compulsory)		
265	Erecting and dismantling access/working platforms in the workplace	2
266	Develop customer relationships	2

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – External Wall Insulation – Boarder and Finisher (5931-57)** learners must achieve all the mandatory units listed below.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit Level
Mandatory		
102	Conforming to general health, safety and welfare in the workplace	1
300	Confirming work activities and resources for an occupational work area in the workplace	3
502	Developing and maintaining good occupational working relationships in the workplace	3
303	Confirming the occupational method of work in the workplace	3
276	Installing external wall insulation in the workplace	3
278	Applying surface finishes to external wall insulation in the workplace	3
242	Insulation and building treatments, building construction, defects and interfaces	3
Additional (not compulsory)		
265	Erecting and dismantling access/working platforms in the workplace	2
266	Develop customer relationships	2

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Internal Insulation (Walls) (5931-58)** learners must achieve all the mandatory units listed below, plus **one** unit from the additional mandatory units.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit Level
Mandatory		
102	Conforming to general health, safety and welfare in the workplace	1
300	Confirming work activities and resources for an occupational work area in the workplace	3
502	Developing and maintaining good occupational working relationships in the workplace	3
303	Confirming the occupational method of work in the workplace	3
242	Insulation and building treatments, building construction, defects and interfaces	3
Additional mandatory	**One unit required**	
270	Installing internal insulation to walls in the workplace	3
272	Injecting, blowing and spraying insulation to internal walls in the workplace	3
Additional (not compulsory)		
265	Erecting and dismantling access/working platforms in the workplace	2
266	Develop customer relationships	2

6.2 Skill scan/initial assessment

Pathway title: _____ Qualification No: **5931**

Candidate name: _____

Unit	Duties	Examples	Training Required	
102	**Conforming to general health, safety and welfare in the workplace**			
1	Comply with all workplace health, safety and welfare legislation requirements.			
2	Recognise hazards associated with the workplace that have not been previously controlled and report them in accordance with organisational procedures.			
3	Comply with organisational policies and procedures to contribute to health, safety and welfare.			
4	Work responsibly to contribute to workplace health, safety and welfare whilst carrying out work in the relevant occupational area.			
5	Comply with and support all organisational security arrangements and approved procedures.			

238	Installing insulation to cold roofs in the workplace			
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.			
2	Know how to comply with environmentally responsible work practices to meet current legislation standards and official guidance when installing insulation to cold roofs.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			
4	Select the required quantity and quality of resources for the methods of work to install insulation to cold roofs.			
5	Minimise the risk of damage to the work and surrounding area when installing insulation to cold roofs.			
6	Complete the work within the allocated time when installing insulation to cold roofs.			
7	Comply with the given contract information to carry out the work efficiently to install insulation to cold roofs to the required specification.			

242	**Insulation and building treatments, building construction, defects and interfaces**			
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.			
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.			
3	Select the required quantity and quality of resources for the methods of work in relation to building construction, defects and interfaces.			
4	Minimise the risk of damage to the work and surrounding area in relation to building construction, defects and interfaces.			
5	Comply with the given contract information when identifying common building construction, defects and interfaces to the required specification.			
243	**Installing insulation to suspended floors in the workplace**			
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.			

2	Know how to comply with relevant legislation and official guidance when installing insulation to suspended floors.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			
4	Select the required quantity and quality of resources for the methods of work to install insulation to suspended floors.			
5	Minimise the risk of damage to the work and surrounding area when installing insulation to suspended floors.			
6	Complete the work within the allocated time when installing insulation to suspended floors.			
7	Comply with the given contract information to install insulation to suspended floors to the required specification.			
244	**Spraying insulation to suspended floors in the workplace**			
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.			
2	Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when spraying insulation to suspended floors.			

3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			
4	Select the required quantity and quality of resources for the methods of work to spray insulation to suspended floors.			
5	Minimise the risk of damage to the work and surrounding area when spraying insulation to suspended floors.			
6	Complete the work within the allocated time when spraying insulation to suspended floors.			
7	Comply with the given contract information to carry out the work efficiently to spray insulation to suspended floors to the required specification.			
265	**Erecting and dismantling access/working platforms in the workplace**			
1	Interpret the given information relating to the work and resources when erecting and dismantling access/working platforms.			
2	Know how to comply with relevant legislation and official guidance when erecting and dismantling access/working platforms.			
3	Maintain safe and healthy working practices when erecting and dismantling access/working platforms.			
4	Select the required quantity and quality of resources for the methods of work to erect and dismantle access/working platforms.			

5	Minimise the risk of damage to the work and surrounding area when erecting and dismantling access/working platforms.			
6	Complete the work within the allocated time when erecting and dismantling access/working platforms.			
7	Comply with the given contract information to erect and dismantle access/ working platforms to the required specification.			
266	**Develop customer relationships**			
1	Build their customer's confidence that the service they give will be excellent.			
2	Meet the expectations of their customers.			
3	Develop the long-term relationship between their customer and their organisation.			
4	Know how to develop customer relationships.			
269	**Injecting, blowing or spraying insulation to framed sections of buildings in the workplace**			
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 injecting, blowing or spraying insulation to framed sections of buildings.			
2	Know how to comply with environmentally responsible work practices to meet current legislation standards and official guidance when injecting, blowing or spraying insulation to framed sections of buildings.			

3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			
4	Select the required quantity and quality of resources for the methods of work to inject, blow or spray insulation to framed sections of buildings.			
5	Minimise the risk of damage to the work and surrounding area when injecting, blowing or spraying insulation to framed sections of buildings.			
6	Complete the work within the allocated time when injecting, blowing or spraying insulation to framed sections of buildings.			
7	Comply with the given contract information to carry out the work efficiently to inject, blow or spray insulation to framed sections of buildings to the required specification.			
270	**Installing internal insulation to walls in the workplace**			
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 internal insulation to walls.			
2	Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing internal insulation to walls.			

3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices			
4	Select the required quantity and quality of resources for the methods of work to install internal insulation to walls.			
5	Minimise the risk of damage to the work and surrounding area when installing internal insulation to walls.			
6	Complete the work within the allocated time when installing internal insulation to walls.			
7	Comply with the given contract information to carry out the work efficiently to install internal insulation to walls. to the required specification.			
271	**Installing insulation to framed sections of buildings in the workplace**			
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 framed sections of buildings.			
2	Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing insulation to framed sections of buildings.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			

4	Select the required quantity and quality of resources for the methods of work to install insulation to framed sections of buildings.			
5	Minimise the risk of damage to the work and surrounding area when installing insulation to framed sections of buildings			
6	Complete the work within the allocated time when installing insulation to framed sections of buildings.			
7	Comply with the given contract information to carry out the work efficiently to install insulation to framed sections of buildings to the required specification.			
272	**Injecting, blowing and spraying insulation to internal walls in the workplace**			
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 injecting, blowing and spraying insulation to internal walls.			
2	Know how to comply with environmentally responsible work practices to meet current legislation standards and official guidance when injecting, blowing and spraying insulation to internal walls.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			

4	Select the required quantity and quality of resources for the methods of work to inject, blow and spray insulation to internal walls.			
5	Minimise the risk of damage to the work and surrounding area when injecting, blowing and spraying insulation to internal walls.			
6	Complete the work within the allocated time when injecting, blowing and spraying insulation to internal walls.			
7	Comply with the given contract information to carry out the work efficiently to inject, blow and spray insulation to internal walls to the required specification.			
273	**Installing blown insulation to cold roofs in the workplace**			
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 blown insulation to cold roofs.			
2	Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing blown insulation to cold roofs.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			
4	Select the required quantity and quality of resources for the methods of work to install blown insulation to cold roofs.			

5	Minimise the risk of damage to the work and surrounding area when installing blown insulation to cold roofs.			
6	Complete the work within the allocated time when installing blown insulation to cold roofs.			
7	Comply with the given contract information to carry out the work efficiently to install blown insulation to cold roofs to the required specification.			
274	**Installing insulation to create warm roofs in the workplace**			
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 create warm roofs in the workplace			
2	Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing insulation to create warm roofs.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			
4	Select the required quantity and quality of resources for the methods of work to install insulation to create warm roofs.			
5	Minimise the risk of damage to the work and surrounding area when installing insulation to create warm roofs.			

6	Complete the work within the allocated time when installing insulation to create warm roofs.			
7	Comply with the given contract information to carry out the work efficiently to install insulation to create warm roofs to the required specification.			
275	**Spraying insulation to create warm roofs in the workplace**			
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 create warm roofs.			
2	Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when spraying insulation to create warm roofs.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			
4	Select the required quantity and quality of resources for the methods of work to spray insulation to create warm roofs.			
5	Minimise the risk of damage to the work and surrounding area when spraying insulation to create warm roofs.			
6	Complete the work within the allocated time when spraying insulation to create warm roofs.			

7	Comply with the given contract information to carry out the work efficiently to spray insulation to create warm roofs to the required specification.			
276	**Installing external wall insulation in the workplace**			
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 external wall insulation.			
2	Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing external wall insulation.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			
4	Select the required quantity and quality of resources for the methods of work to install external wall insulation.			
5	Minimise the risk of damage to the work and surrounding area when installing external wall insulation.			
6	Complete the work within the allocated time when installing external wall insulation.			
7	Comply with the given contract information to carry out the work efficiently to install external wall insulation to the required specification.			

277	Park homes insulation			
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 reviewing the suitability of Park Homes for insulation measures.			
2	Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when reviewing the suitability of Park Homes for insulation measures.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.			
4	Select the required quantity and quality of resources as per the designs for the methods of work when reviewing the suitability of Park Homes for insulation measures.			
5	Minimise the risk of damage to the work and surrounding area when reviewing the suitability of Park Homes for insulation measures.			
6	Complete the work within the allocated time when reviewing the suitability of Park Homes for insulation measures.			
7	Comply with the given contract information to carry out the work efficiently when reviewing the suitability of Park Homes for insulation measures to the required specification.			

278	Applying surface finishes to external wall insulation in the workplace			
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 applying surface finishes to external wall insulation.			
2	Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when applying surface finishes to external wall insulation.			
3	Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices when applying surface finishes to external wall insulation.			
4	Select the required quantity and quality of resources for the methods of work to apply surface finishes to external wall insulation.			
5	Minimise the risk of damage to the work and surrounding area when applying surface finishes to external wall insulation.			
6	Complete the work within the allocated time when applying surface finishes to external wall insulation.			
7	Comply with the given contract information to carry out the work efficiently when applying surface finishes to external wall insulation to the required specification.			

300	**Confirming work activities and resources for an occupational work area in the workplace**			
1	Identify work activities, assess required resources and plan the sequence of work.			
2	Obtain clarification and advice where the resources required are not available.			
3	Evaluate the work activities and the requirements of any significant external factors against the project requirements.			
4	Identify work activities which influence each other and make the best use of the resources available.			
5	Identify changed circumstances that require alterations to the work programme and justify them to decision makers.			
303	**Confirming the occupational method of work in the workplace**			
1	Assess available project data accurately to determine the occupational method of work.			
2	Obtain additional information from alternative sources in cases where the available project data is insufficient.			
3	Identify work methods that will make best use of resources and meet project, statutory and contractual requirements.			
4	Confirm and communicate the selected work method to relevant personnel.			
502	**Developing and maintaining good occupational working relationships in the workplace**			

1	Develop, maintain and encourage working relationships to promote good will and trust.			
2	Inform relevant people about work activities in an appropriate level of detail, with the appropriate level of urgency.			
3	Offer advice and help to relevant people about work activities and encourage questions/requests for clarification and comments.			
4	Clarify proposals with relevant people and discuss alternative suggestions.			
5	Resolve differences of opinion in ways that minimise offence and maintain goodwill, trust and respect.			

6.3 Tracking documents

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Room in Roof (Construction) (5931-51)** learners must achieve all the mandatory units listed below, plus **two** units from the additional mandatory units, plus **one** unit from Group A and **one** unit from Group B optional units.

Learners can also undertake the additional unit 265; however, the completion of this unit will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit achieved? (Y/N)	Date
Mandatory			
102	Conforming to general health, safety and welfare in the workplace		
300	Confirming work activities and resources for an occupational work area in the workplace		
502	Developing and maintaining good occupational working relationships in the workplace		
303	Confirming the occupational method of work in the workplace		
242	Insulation and building treatments, building construction, defects and interfaces		
Additional mandatory	**Two units required**		
270	Installing internal insulation to walls in the workplace		
271	Installing insulation to framed sections of buildings in the workplace		
269	Injecting, blowing or spraying insulation to framed sections of buildings in the workplace		
Optional Group A	**One unit required**		
238	Installing insulation to cold roofs in the workplace		
273	Installing blown insulation to cold roofs in the workplace		
266	Develop customer relationships		
Optional Group B	**One unit required**		
274	Installing insulation to create warm roofs in the workplace		
275	Spraying insulation to create warm roofs in the workplace		
266	Develop customer relationships		

Additional (not compulsory)			
265	Erecting and dismantling access/working platforms in the workplace		

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Park Homes (Construction) (5931-52)** learners must achieve all the mandatory units listed below, plus **one** unit from the additional mandatory units, and **one** unit from the optional units.

Learners can also undertake the additional unit 265; however, the completion of this unit will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit achieved? (Y/N)	Date
Mandatory			
102	Conforming to general health, safety and welfare in the workplace		
502	Developing and maintaining good occupational working relationships in the workplace		
300	Confirming work activities and resources for an occupational work area in the workplace		
303	Confirming the occupational method of work in the workplace		
276	Installing external wall insulation in the workplace		
277	Park homes insulation		
242	Insulation and building treatments, building construction, defects and interfaces		
Addional mandatory	**One unit required**		
243	Installing insulation to suspended floors in the workplace		
244	Spraying insulation to suspended floors in the workplace		
Optional	**One unit required**		
238	Installing insulation to cold roofs in the workplace		
273	Installing blown insulation to cold roofs in the workplace		
266	Develop customer relationships		
Additional (not compulsory)			
265	Erecting and dismantling access/working platforms in the workplace		

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Hybrid Wall (Construction) (5931-53)** learners must achieve all the mandatory units listed below, plus **one** unit from the additional mandatory units.

Learners can also undertake the additional units 265, 266 and 278; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit achieved? (Y/N)	Date
Mandatory			
102	Conforming to general health, safety and welfare in the workplace		
300	Confirming work activities and resources for an occupational work area in the workplace		
502	Developing and maintaining good occupational working relationships in the workplace		
303	Confirming the occupational method of work in the workplace		
276	Installing external wall insulation in the workplace		
242	Insulation and building treatments, building construction, defects and interfaces		
Additional mandatory	**One unit reqired**		
270	Installing internal insulation to walls in the workplace		
272	Injecting, blowing and spraying insulation to internal walls in the workplace		
Additional (not compulsory)			
265	Erecting and dismantling access/working platforms in the workplace		
278	Applying surface finishes to external wall insulation in the workplace		
266	Develop customer relationships		

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Insulating Framed Sections of Buildings (Construction) (5931-54)** learners must achieve all the mandatory units listed below, plus **one** unit from the additional mandatory units.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit achieved? (Y/N)	Date
Mandatory			
102	Conforming to general health, safety and welfare in the workplace		
300	Confirming work activities and resources for an occupational work area in the workplace		
502	Developing and maintaining good occupational working relationships in the workplace		
303	Confirming the occupational method of work in the workplace		
242	Insulation and building treatments, building construction, defects and interfaces		
Additional mandatory	**One unit required**		
271	Installing insulation to framed sections of buildings in the workplace		
269	Injecting, blowing or spraying insulation to framed sections of buildings in the workplace		
Additional (not compulsory)			
265	Erecting and dismantling access/working platforms in the workplace		
266	Develop customer relationships		

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – External Wall Insulation – Boarder (Construction) (5931-55)** learners must achieve all the mandatory units listed below.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit achieved? (N/A)	Date
Mandatory			
102	Conforming to general health, safety and welfare in the workplace		
300	Confirming work activities and resources for an occupational work area in the workplace		
502	Developing and maintaining good occupational working relationships in the workplace		
303	Confirming the occupational method of work in the workplace		
276	Installing external wall insulation in the workplace		
242	Insulation and building treatments, building construction, defects and interfaces		
Additional (not compulsory)			
265	Erecting and dismantling access/working platforms in the workplace		
266	Develop customer relationships		

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – External Wall Insulation – Finisher (5931-56)** learners must achieve all the mandatory units listed below.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit achieved? (Y/N)	Date
Mandatory			
102	Conforming to general health, safety and welfare in the workplace		
300	Confirming work activities and resources for an occupational work area in the workplace		
502	Developing and maintaining good occupational working relationships in the workplace		
303	Confirming the occupational method of work in the workplace		
278	Applying surface finishes to external wall insulation in the workplace		
242	Insulation and building treatments, building construction, defects and interfaces		
Additional (not compulsory)			
265	Erecting and dismantling access/working platforms in the workplace		
266	Develop customer relationships		

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – External Wall Insulation – Boarder and Finisher (5931-57)** learners must achieve all the mandatory units listed below.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit achieved? (Y/N)	Date
Mandatory			
102	Conforming to general health, safety and welfare in the workplace		
300	Confirming work activities and resources for an occupational work area in the workplace		
502	Developing and maintaining good occupational working relationships in the workplace		
303	Confirming the occupational method of work in the workplace		
276	Installing external wall insulation in the workplace		
278	Applying surface finishes to external wall insulation in the workplace		
242	Insulation and building treatments, building construction, defects and interfaces		
Additional (not compulsory)			
265	Erecting and dismantling access/working platforms in the workplace		
266	Develop customer relationships		

To achieve the **City & Guilds Level 3 NVQ in Insulation and Building Treatments – Internal Insulation (Walls) (5931-58)** learners must achieve all the mandatory units listed below, plus **one** unit from the additional mandatory units.

Learners can also undertake the additional units 265 & 266; however, the completion of these units will not contribute to the overall achievement of this qualification pathway.

City & Guilds unit number	Unit title	Unit achieved? (Y/N)	Date
Mandatory			
102	Conforming to general health, safety and welfare in the workplace		
300	Confirming work activities and resources for an occupational work area in the workplace		
502	Developing and maintaining good occupational working relationships in the workplace		
303	Confirming the occupational method of work in the workplace		
242	Insulation and building treatments, building construction, defects and interfaces		
Additional mandatory	**One unit required**		
270	Installing internal insulation to walls in the workplace		
272	Injecting, blowing and spraying insulation to internal walls in the workplace		
Additional (not compulsory)			
265	Erecting and dismantling access/working platforms in the workplace		
266	Develop customer relationships		

6.4 On site assessment plan/feedback

Portfolio evidence reference:	

Candidate name:		**Date:**	

Candidate prepared for assessment	Yes / No	Candidate requires support	Yes / No
Candidate briefed on appeals procedure	Yes / No	Support required	Yes / No

Assessment location/address and postcode:

Type of work to be carried out:

Assessor feedback:
(Use Assessor continuation sheet if required)

Forward Planning:

Candidate signature:		Date:
Assessor name:	Assessor signature:	Date:
IQA name:	IQA signature:	Date:

6.5 On site observation report

Portfolio evidence reference:	

Candidate name:		**Date:**	

Candidate prepared for assessment	Yes / No	Candidate requires support	Yes / No
Candidate briefed on appeals procedure	Yes / No	Support required	Yes / No

Assessment location/address and postcode:

Learning outcome reference	Assessor observation: (Use Assessor continuation sheet if required)

Candidate signature:		Date:
Assessor name:	Assessor signature:	Date:
IQA name:	IQA signature:	Date:

6.6 Professional discussion supplementary evidence sheet

Unit number:		**Portfolio evidence reference:**	
Candidate name:		**Date:**	

Completed by: (please tick)

Candidate: ☐ **Work-based Recorder** ☐ **Witness** ☐

Learning outcome reference	Written evidence:

Reading taken (eg flow rates, pressure, temperature):

Candidate signature:		Date:
Assessor/Work-based Recorder name:		Date:
Assessor/Work-based Recorder signature:		Date:
IQA name:	IQA signature:	Date:

6.7 Oral questioning supplementary evidence sheet

Unit number:		**Portfolio evidence reference:**	
Candidate name:		**Date:**	

Assessor question:	**Candidate answer:**
Assessor feedback:	

Candidate signature:		Date:
Assessor name:	Assessor signature:	Date:
IQA name:	IQA signature:	Date:

6.8 Photographic supplementary evidence

Unit number:		**Portfolio evidence reference:**	
Candidate name:		**Date:**	

Brief description of task being carried out in the photograph (to be completed by the candidate):

(Attach photo in this box)

Where the photograph was taken:

Candidate signature:		Date:
Assessor name:	Assessor signature:	Date:
IQA name:	IQA signature:	Date:

6.9 Work-based recorder/expert witness details

If a work-based recorder/expert witness is to be used to confirm your competence in the workplace (system to be agreed by assessor) then to meet the requirements of the construction industry qualification assessment strategy (as agreed by the key industry bodies) he/she must be occupationally competent, endorsed by the employer the IQA or the assessor. The designated work-based recorder should ordinarily be your immediate work supervisor. It is recognised that over the lifetime of the qualification you may be allocated more than one work-based recorder. The requirements detailed below therefore **must** be completed by each work-based recorder allocated to you.

I confirm I am suitably experienced or qualified in line with the industry requirements for work-based recorders detailed above. I acknowledge that I will only counter sign documentation requested by the candidate where to my knowledge only the candidate has completed the work and on the understanding that the work has been carried out to a commercially acceptable standard.

Work-based Recorder name:	
Work-Based Recorder signature:	Date:

I confirm that I am suitably experienced or qualified in line with the industry requirements for work-based recorders detailed above. I acknowledge that I will only counter sign documentation requested by the candidate where to my knowledge only the candidate has completed the work and on the understanding that the work has been carried out to a commercially acceptable standard.

Work-based Recorder name:	
Work-Based Recorder signature:	Date:

I confirm that I am suitably experienced or qualified in line with the industry requirements for work-based recorders detailed above. I acknowledge that I will only counter sign documentation requested by the candidate where to my knowledge only the candidate has completed the work and on the understanding that the work has been carried out to a commercially acceptable standard.

Work-based Recorder name:	
Work-Based Recorder signature:	Date:

6.10 Assessor continuation sheet

On site assessment plan/feedback

On site observation

Portfolio evidence reference:	

Candidate name:		**Date:**	

Candidate signature:		Date:
Assessor name:	Assessor signature:	Date:
IQA name:	IQA signature:	Date:

6.11 Signature sheet

Candidate name:		**Date:**	

Anyone who witnesses and signs a piece of the candidate's evidence must provide a specimen signature in the table below

Witnesses relationship to candidate eg supervisor, customer, lecturer, assessor	Name	Signature	Date

Unit 102 Conforming to general health, safety and welfare in the workplace

Level: 1

Unit aim:

The aim of this unit is to provide you with an awareness of:

- current statutory requirements and official guidance
- responsibilities, to self and others, relating to workplace health, safety and welfare
- personal behaviour and security in the workplace

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony
PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

1. Comply with all workplace health, safety and welfare legislation requirements.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:**							
a. **statutory requirements**							
b. **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:							
	a. collective protective measures							
	b. Personal Protective Equipment (PPE)							
	c. Respiratory Protective Equipment (RPE)							
	d. 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:							
	a. health, safety and welfare legislation							
	b. notices and warning signs							
	are relevant to the occupational area and associated equipment							
1.7	state why:							
	a. health, safety and welfare legislation							
	b. 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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. resources							
b. substances							
c. asbestos							
d. equipment							
e. obstructions							
f. storage							
g. services							
h. work activities							
2.3 list the current Health and Safety Executive top ten safety risks							
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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. dealing with accidents and emergencies associated with the work and environment							
b. methods of receiving or sourcing information							
c. reporting							
d. stopping work							
e. evacuation							
f. fire risks and safe exit procedures							
g. 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.							

4. Work responsibly to contribute to workplace health, safety and welfare whilst carrying out work in the relevant occupational area.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. recognising when to stop work in the face of serious and imminent danger to self and/or others							
b. contributing to discussions and providing feedback							
c. reporting changed circumstances and incidents in the workplace							
d. 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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
5.1 **provide appropriate support for security arrangements in accordance with approved procedures:**							
a. **during the working day**							
b. **on completion of the day's work**							
c. **for unauthorised personnel (other operatives and the general public)**							
d. **for theft**							
5.2 state how security arrangements are implemented in relation to:							
a. the workplace							
b. the general public							
c. site personnel							
d. resources.							

Unit 102 Conforming to general health, safety and welfare in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 238 Installing insulation to cold roofs in the workplace

Level: 2

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting materials, components and equipment
- preparing, installing and relocating modular demountable partition systems.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question
WT Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 **interpret and extract information from:**							
a. **drawings**							
b. **specifications**							
c. **schedules**							
d. **method statements**							
e. **risk assessments**							
f. **manufacturers' information and 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 and completeness and how they are interpreted in relation to:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings							

2. Know how to comply with relevant legislation and official guidance when installing insulation to cold roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 describe your responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. below ground level							
c. confined spaces							
d. at height							
e. tools and equipment							
f. materials and substances							
g. 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:							
a. site							
b. workplace							
c. sitting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. materials and waste storage							
h. 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:							
a. water							
b. CO2							
c. foam							
d. powder							

3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **demonstrate compliance with relevant legislation, standards and official guidance when installing insulation to cold roofs in relation to the following:**							
a. **methods of work**							
b. **safe use of health and safety control equipment**							
c. **safe use of access equipment and harness systems**							
d. **safe use, storage and handling of materials, tools and equipment**							
e. **specific risks to health including mental health**							

f. **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 defined by the principles of prevention should be used when installing insulation to cold roofs in relation to:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV)							
3.3	describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries							
	d. other task-related activities							
	e. identification of and reporting of asbestos containing materials							
3.4	describe how to report risks and hazards identified by the following:							
	a. risk assessment							
	b. personal assessment							
	c. methods of work							
	d. manufacturers' technical information							
	e. data sheets							
	f. statutory regulations							
	g. official guidance							
	h. Control of Substances Hazardous to Health (COSHH)							

4. Select the required quantity and quality of resources for the methods of work to install insulation to cold roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **select resources associated with own work in relation to:**							
a. **materials**							
b. **components**							
c. **fixings**							
d. **tools**							
e. **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 correctly and how problems associated with the resources are reported in relation to:							
a. protective sheeting							
b. warning signs							
c. temporary barriers							
d. insulation							
e. pipe insulation							
f. tank and cylinder jackets							
g. insulation fixings							
h. access boards							
i. loft hatches							
j. light wells							
k. soffit and fascia boards							

	l. tile vents							
	m. sarking felt vents							
	n. draught-proofing materials							
	o. fire related caps							
	p. cable protection							
	q. 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							
4.9	describe how to calculate the quantity 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.							

5. Minimise the risk of damage to the work and surrounding area when installing insulation to cold roofs.								
You must be able to:		*PER	SO	OQ	WQ	WT	PS	PD
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:							

a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. manufacturers' information							
e. statutory regulations							
f. official guidance							

6. Complete the work within the allocated time when installing insulation to cold roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme							

7. Comply with the given contract information to install insulation to cold roofs to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **demonstrate the following work skills when installing insulation to cold roofs**							
a. **measuring**							
b. **marking out**							
c. **calculating**							
d. **cutting**							
e. **fitting**							
f. **filling**							

	g. **positioning**							
	h. **securing**							
	i. **making good**							
7.2	**use and maintain work tools and equipment**							
7.3	**carry out external and internal pre-installation checks assessing, recording and reporting issues to include:**							
	a. **suitable access**							
	b. **property suitability**							
	c. **structural integrity**							
	d. **dampness**							
	e. **decay**							
	f. **vents and adequate ventilation**							
	g. **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 given work instructions:**							
	a. **placed**							
	b. **mechanically or adhesively fixed**							
7.5	**prepare and install insulation to cold roofs to the following compliance with current regulations and to given work instructions:**							
	a. **pipes**							
	b. **tanks and/or cylinders**							
	c. **access hatches**							
	d. **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 safeguarding existing ventilation**							
7.10 **insulate and draught-proof access hatches**							
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:							
a. 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							
b. how to record and report issues or defects with the materials, components and finishes							
c. why it is important to carry out external and internal pre-installation checks							
d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include:							
i. common infestations							
ii. protected species							
iii. suitable access							
iv. property suitability							
v. structural integrity							
vi. dampness							
vii. decay							
viii. vents and ventilation							
ix. services (gas, electric, water, media cables)							

e. why it is important to ensure that all necessary repairs are completed prior to installation							
f. how and why it is important to recognise the procedures to check, record and report issues with construction ventilation, flues, chimneys and combustion air ventilators pre and post installation							
g. how to identify and follow the installation quality requirements							
h. how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:							
i. condition of building fabric							
ii. identification of any areas of potential water penetration							
iii. condition of roof							
iv. drainage and down pipes							
i. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:							
i. fire safety							
ii. electrical							
iii. asbestos							
iv. Radon							
v. heritage							
vi. architectural features							
vii. ecology							
viii. ventilation							
j. 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							
k. 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							
l. why it is important to avoid unintended consequences							

m. why it is important to explain installation procedure to building occupants to include but not limited to the following:							
i. scope and work programme							
ii. safety requirements during the installation process							
iii. protection of property and personal items							
iv. specific benefits and implications to include homeowner information							
v. agreed standards of making good							
n. the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:							
i. roof skylights							
ii. loft guarantees							
iii. building warranties							
iv. timber treatment							
o. how to work with, around and in close proximity to plant and machinery							
p. how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
q. how to work in confined spaces							
r. how to create and protect platforms and walkways							
s. why it is important to identify and remove infested, damaged and contaminated insulation from the roof area							
t. how to remove and secure building occupants stored items							
u. how to identify and install passive ventilation and report any ventilation limitations identified							
v. 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)							
w. the importance of ensuring all work to services (gas, electric, water, media cables) is carried out by suitably qualified people							
x. how to check for and protect hidden utilities							

y. how to identify insulation materials and their characteristics for cold roofs, pipes, storage tanks, cylinders and access hatches							
z. how to prepare and install, placed, mechanically or adhesively fixed insulation to cold roofs							
aa. why it is important to minimise the effects of thermal bridging through compliance with design detail ensuring consistent insulation of the area being insulated							
bb. how to check serviceability and provision of walkway boards and platforms							
cc. how to prepare and fix pipe, tank and cylinder insulation							
dd. how to ensure the insulation is contained within the prescribed areas							
ee. how to protect downlighters by installation of fire rated caps to the required specification							
ff. how to ensure insulation around electrical apparatus will not create fire hazards (light fittings, electrical units and cables)							
gg. how to insulate and draught-proof access hatches							
hh. how to Insulate light wells to ensure continuity of							
ii. how to maintain fire resistant barriers							
jj. 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							
kk. the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							
ll. 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							
mm. 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							
nn. why it is important to provide advice to building occupants to preserve the integrity of the insulation (insulation data sheet and warning labels)							
oo. how to handover and sign off to the customers' satisfaction							
pp. how to use all work tools and equipment							
qq. how to work at height using access equipment and harness systems							

rr. 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 teamwork and communication when installing insulation to cold roofs							

Unit 238 Installing insulation to cold roofs in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 242 Insulation and building treatments, building construction, defects and interfaces

Level: 2

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- complying with legislation, standards and official guidance
- selecting the required quantity and quality of resources
- minimising the risk of damage
- complying with given contract information

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 **interpret and extract relevant information from:**							
a. **drawings**							
b. **specifications**							
c. **schedules**							
d. **method statements**							
e. **risk assessments**							
f. **manufacturers' information**							
g. **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:							
a. types of construction							
b. energy efficiency measures							
c. building treatments							
d. drawings							
e. method statements							
f. design							
g. standards							
h. manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings							
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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. fires							
a. spillages							
b. injuries							
c. emergencies relating to occupational activities							
d. identification of and reporting of asbestos containing materials							
2.3 describe how to report risks and hazards identified by the following:							

a. risk assessment							
b. personal assessment							
c. methods of work							
d. safe systems of work							
e. manufacturers' technical information							
f. data sheets							
g. statutory regulations							
h. official guidance							
i. Control of Substances Hazardous to Health (COSHH)							
2.4 explain the accident reporting procedures and who is responsible for making reports.							
3. Select the required quantity and quality of resources for the methods of work in relation to building construction, defects and interfaces.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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							

5. Comply with the given contract information when identifying common building construction, defects and interfaces to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. salt contamination							
b. causes of dampness							
c. rain penetration							
d. rising damp							
e. internal moisture vapour							
f. damaged services							
g. 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:							
	a. 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							
	b. how to record and report issues or defects with the materials, components and finishes							
	c. why it is important to carry out external and internal pre-installation checks							
	d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include but not limited to:							
	i property suitability							
	ii structural integrity							
	iii dampness							
	iv decay							
	v exposure ratings							
	vi vents and ventilation							
	vii services (gas, electric, water, media cables)							
	e. why it is important to ensure that all necessary repairs are completed prior to installation							
	f. 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:							
	i roofs							
	ii walls including internal and external finishes							
	iii floors							
	iv windows and doors							
	v chimneys and fireplaces							
	vi flues and combustion ventilation							
	vii fabric interfaces							

	viii existing services							
g.	the importance of the correct sequencing of installation of energy efficiency measures and building treatments							
h.	how performance varies in different construction types, locations and through the impact of habitation and usage							
i.	how alterations, additions and extensions to the original construction can affect the performance of the building							
j.	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							
k.	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							
l.	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:							
	i impacts on neighbouring properties							
	ii insulation fitting and placement for different insulation types							
	iii junctions							
	iv thermal bridging and condensation risks							
	v thermal bypassing							
	vi void ventilation							
m.	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							
n.	the implications of building defects and the repairs required and how they will affect the choice of energy efficiency measures and building treatments							
o.	the importance of compatibility and interactions between measures and the fabric of the underlying building							
p.	how to identify when specialist skills and knowledge are required and report accordingly, including but not limited to:							
	i fire safety							
	ii electrical							

	iii	gas						
	iv	asbestos						
	v	Radon						
	vi	heritage						
	vii	ecology						
	viii	archaeological and architectural features						
	ix	ventilation						
	x	dampness and building exposure						
q. 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								
r. 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 teamwork and communication how to effectively communicate within a team when identifying building construction, defects and interfaces								

Unit 242 Insulation and building treatments, building construction, defects and interfaces

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 243 Installing insulation to suspended floors in the workplace

Level: 2

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting materials, components and equipment
- installing insulation to floors.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 interpret and extract relevant information from:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing insulation to suspended floors.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. below ground level							
c. confined spaces							
d. at height							
e. tools and equipment							

f. materials and substances							
g. 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:							
a. site							
b. workplace							
c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. materials and waste storage							
h. 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:							
a. water							
b. CO2							
c. foam							
d. powder							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 demonstrate compliance with, relevant legislation, standards and official guidance when installing insulation to suspended floors in relation to the following:							
a. methods of work							

	b. safe use of health and safety control equipment							
	c. safe use of access equipment							
	d. safe use, storage and handling of materials, tools and equipment							
	e. specific risks to health including mental health							
	f. specific risks associated with ventilation (inside the property and under floor) and also including combustion appliances							
	g. 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:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV)							
3.3	describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries							
	d. emergencies relating to occupational activities							
	e. identification of and reporting of asbestos containing materials							
3.4	describe how to report risks and hazards identified by the following:							
	a. risk assessment							
	b. personal assessment							
	c. methods of work							
	d. manufacturers' technical information							
	e. data sheets							

f. statutory regulations							
g. official guidance							
h. Control of Substances Hazardous to Health (COSHH)							
4. Select the required quantity and quality of resources for the methods of work to install insulation to suspended floors.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. protective sheeting							
b. warning signs							
c. temporary barriers							
d. making good materials							
e. filling materials							
f. sealants							
g. 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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. suppliers and manufactures' information							
e. data sheets							
f. statutory regulations							
g. official guidance							

6. Complete the work within the allocated time when installing insulation to suspended floors.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme							
7. Comply with the given contract information to carry out the work efficiently to install insulation to suspended floors to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **demonstrate the following work skills when installing insulation to suspended floors:**							
a. measuring							
b. marking out							
c. cutting							
d. fitting							
e. positioning							
f. securing							
g. 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:**							
a. suitable access							
b. property suitability							
c. structural integrity							

	d. dampness							
	e. decay							
	f. vents and ventilation							
	g. 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:**							
	a. condition of building fabric							
	b. identification of any areas of potential water penetration							
	c. visibility and completeness of damp proof course							
	d. condition of window and door seals							
	e. height of internal floors in relation to finished ground level							
	f. drainage and down pipes							
	g. 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:**							
	a. safe systems of work							
	b. minimising damage							
	c. checking existing services							
	d. building construction and heritage significance							
	e. 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 soundproofing**							
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:							
a. 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							
b. how to record and report issues or defects with the materials, components and finishes							
c. why it is important to carry out external and internal pre-installation checks							
d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include:							
i suitable access							
ii property suitability							
iii structural integrity							

iv	dampness							
v	decay							
vi	vents and ventilation							
vii	services (gas, electric, water, media cables)							
e. how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:								
i	condition of building fabric							
ii	identification of any areas of potential water penetration							
iii	visibility and completeness of damp proof course							
iv	condition of window and door seals							
v	height of internal floors in relation to external floor height							
vi	condition of roof							
vii	damaged and spalled brickwork							
viii	rain and waste water goods							
ix	protection and existence of sub floor ventilation							
x	wall cavity width and identification of any debris							
f. why it is important to ensure that all necessary repairs are completed prior to installation								
g. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:								
i	fire safety							
ii	electrical							
iii	asbestos							
iv	Radon							
v	heritage							
vi	archaeological and architectural features							

vii	ecology							
viii	ventilation							
ix	exposure and topography							
h. 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								
i. 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								
j. why it is important to avoid unintended consequences								
k. how to check, record and report issues with under floor (cross flow) ventilation, flues, chimneys and combustion air ventilators pre- and post-installation								
l. why it is important to explain installation procedure to building occupants to include but not limited to the following:								
x	scope and work programme							
xi	safety requirements during the installation process							
xii	protection of property and personal items							
xiii	specific benefits and implications to include homeowner information							
xiv	agreed standards of making good							
m. the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:								
i	timber treatments							
ii	replacement wall ties							
iii	injected damp proof course							
iv	under floor and central heating systems							
v	Radon barriers							
vi	electrical wiring							
vii	services							

n. how to identify and follow the installation quality requirements							
o. how to work with, around and in close proximity to plant and machinery							
p. how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
q. why it is important to recognise the potential risk of increased condensation following installation relating to suspended floors and how to prevent it							
r. how to prepare a floor for insulation, creating access points taking into consideration the following but not limited to:							
i safe systems of work							
ii minimising damage							
iii checking existing services							
iv building construction and heritage significance							
v customer safety							
vi archaeology							
s. how to check for hidden utilities							
t. the importance of ensuring all work to services (gas, electric, water) is carried out by suitably qualified people							
u. how to maintain the integrity of membranes							
v. how to remove and minimise damage to floorcoverings							
w. why it is important to ensure the minimum void area air space is maintained by removing debris as required							
x. 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							
y. how to protect the building occupants and their property							
z. how to install placed, mechanically or adhesively fixed insulation to suspended floors							
aa. 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							
bb. the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							

cc. 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							
dd. how to ensure pre-installation material checks are within specified parameters and reporting defects							
ee. how to ensure existing cross flow ventilation is maintained within the floor void							
ff. how to maintain existing sound-proofing							
gg. how to install and maintain fire resistant barriers							
hh. why it is important to minimise thermal bridging through compliance with design detail ensuring a consistent level of insulation to the area being insulated							
ii. 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							
jj. why it is important to provide post installation advice and guidance to building occupants including homeowner packs							
kk. how to handover and sign off to the customers satisfaction							
ll. how to use all work tools and equipment							
mm. how to work at height using access equipment							
nn. 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 teamwork and communication when installing insulation to suspended floors							

Unit 243 Installing insulation to suspended floors in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 244 Spraying insulation to suspended floors in the workplace

Level: 2

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- complying with legislation, standards and official guidance
- selecting the required quantity and quality of resources
- minimising the risk of damage
- complying with given contract information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 **interpret and extract relevant information from:**							
a. **drawings**							
b. **specifications**							
c. **schedules**							
d. **method statements**							
e. **risk assessments**							
f. **manufacturers' information**							
g. **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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when spraying insulation to suspended floors.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working:							
a. 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:							
a. site							
b. workplace							

c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. material and waste storage							
h. the general public							
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 spraying insulation to suspended floors and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **demonstrate compliance with relevant legislation, standards and official guidance when spraying insulation to suspended floors in relation to the following:**							
a. **methods of work**							
b. **safe use of health and safety control equipment**							
c. **safe use of access equipment**							
d. **safe use, storage and handling of materials, tools and equipment**							
e. **operative maintenance of installation equipment**							
f. **specific risks to health including mental health**							

	g. **specific risks associated with ventilation (inside the property and under floor) and also including combustion appliances**							
	h. **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:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV)							
3.3	describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries							
	d. emergencies relating to occupational activities							
	e. identification of and reporting of asbestos containing materials							
3.4	describe how to report risks and hazards identified by the following:							
	a. risk assessment							
	b. personal assessment							
	c. methods of work							
	d. manufacturers' technical information							
	e. data sheets							
	f. statutory regulations							
	g. official guidance							
	h. 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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. protective sheeting							
b. warning signs							
c. temporary barriers							
d. making good materials							
e. filling materials							
f. sealants							
g. installation equipment							
h. 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							

5. Minimise the risk of damage to the work and surrounding area when spraying insulation to suspended floors.	*PER	SO	OQ	WQ	WT	PS	PD
You must be able to:							
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. manufacturers' information							
e. data sheets							
f. statutory regulations							
g. official guidance							
6. Complete the work within the allocated time when spraying insulation to suspended floors.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme							
7. Comply with the given contract information to carry out the work efficiently to spray insulation to suspended floors to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **demonstrate the following work skills when spraying insulation to suspended floors:**							
a. **measuring**							
b. **marking out**							
c. **calculating**							
d. **cutting**							
e. **fitting**							
f. **filling**							
g. **positioning and securing**							
h. **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:**							
a. **suitable access**							
b. **property suitability**							
c. **structural integrity**							
d. **dampness**							
e. **decay**							

	f. **vents and ventilation**							
	g. **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:**							
	a. **condition of building fabric**							
	b. **identification of any areas of potential water penetration**							
	c. **visibility and completeness of damp proof course**							
	d. **condition of window and door seals**							
	e. **height of internal floors in relation to external floor height**							
	f. **drainage and down pipes**							
	g. **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:**							
	a. **safe systems of work**							
	b. **minimising damage**							
	c. **checking existing services**							
	d. **building construction and heritage significance**							
	e. **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 soundproofing**							
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**							
7.26 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:							
a. 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							
b. how to record and report issues or defects with the materials, components and finishes							
c. why it is important to carry out external and internal pre-installation checks							
d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include:							
i. suitable access							

ii.	property suitability							
iii.	structural integrity							
iv.	dampness							
v.	decay							
vi.	vents and ventilation							
vii.	services (gas, electric, water, media cables)							
e.	why it is important to ensure that all necessary repairs are completed prior to installation							
f.	how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:							
i	condition of building fabric							
ii	identification of any areas of potential water penetration							
iii	visibility and completeness of damp proof course							
iv	condition of window and door seals							
v	height of internal floors in relation to external floor height							
vi	condition of roof							
vii	damaged or spalled brickwork							
viii	rain and wastewater goods							
ix	protection and existence of sub floor ventilation							
x	cavity width and identification of any debris							
g.	how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:							
i	fire safety							
ii	electrical							
iii	asbestos							
iv	Radon							

v	heritage							
vi	archaeological and architectural features							
vii	ecology							
viii	ventilation							
ix	exposure & topography							
h.	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							
i.	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							
j.	why it is important to avoid unintended consequences							
k.	how to check, record and report issues with under floor (cross flow) ventilation, flues, chimneys and combustion air ventilators pre- and post-installation							
l.	why it is important to explain installation procedure to building occupants to include but not limited to the following:							
i	scope and work programme							
ii	safety requirements during the installation process							
iii	protection of property and personal items							
iv	specific benefits and implications to include homeowner information							
v	agreed standards of making good							
m.	the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:							
i	timber treatments							
ii	replacement wall ties							
iii	injected damp proof course							
iv	under floor and central heating systems							
v	Radon barriers							

vi	electrical wiring							
vii	services							
n.	how to identify and follow the installation quality requirements							
o.	how to work with, around and in close proximity to plant and machinery							
p.	how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
q.	why it is important to recognise the potential risk of increased condensation following installation relating to suspended floors and how to prevent it							
r.	how to prepare a floor for insulation, creating access points taking into consideration the following but not limited to:							
viii	safe systems of work							
ix	minimising damage							
x	checking existing services							
xi	building construction and heritage significance							
xii	customer safety							
xiii	archaeology							
s.	how to check for hidden utilities							
t.	the importance of ensuring all work to services (gas, electric, water) is carried out by suitably qualified people							
u.	how to maintain integrity of membranes							
v.	how to remove and minimise damage to floorcoverings							
w.	why it is important to ensure the minimum void area air space is maintained by removing debris as required							
x.	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							
y.	how to protect the building occupants and their property							
z.	how to assemble, operate, clean and disassemble installation processing equipment							
aa.	how to calibrate equipment to measure density, flow and quality tests							

bb.	how to spray insulation to suspended floors							
cc.	how to ensure pre-installation material checks are within specified parameters to include checking and recording batch number and reporting defects							
dd.	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							
ee.	the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							
ff.	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							
gg.	how to ensure existing cross flow ventilation is maintained within the floor void							
hh.	how to maintain existing soundproofing							
ii.	how to install and maintain fire resistant barriers							
jj.	why it is important to minimise thermal bridging through compliance with design detail ensuring a consistent level of insulation of the area being insulated							
kk.	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							
ll.	why it is important to provide post installation advice and guidance to building occupants including homeowner packs							
mm.	how to handover and sign off to the customers satisfaction							
nn.	how to clean and disassemble installation processing equipment and pack away for transportation							
oo.	how to use all work tools and installation equipment in line with manufacturers and system specifications							
pp.	how to work at height using access equipment and harness systems							
qq.	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 teamwork and communication when spraying insulation to suspended floors							

Unit 244 Spraying insulation to suspended floors in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 265 Erecting and dismantling access/working platforms in the workplace

Level: 2

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting materials, components and equipment
- erecting and dismantling access/working platforms.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

1. Interpret the given information relating to the work and resources when installing suspended ceiling systems							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 **interpret and extract information from:**							
a. **specifications**							
b. **method statements**							
c. **risk assessments**							
d. **manufacturers' information**							
1.2 **comply with information and/or instructions derived from risk assessments and method statement**							

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:							
a. specifications							
b. current legislation							
c. method statements							
d. risk assessments							
e. manufacturers' information							

2. Know how to comply with relevant legislation and official guidance when erecting and dismantling access/working platforms.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 describe your responsibilities under current legislation and official guidance whilst working:							
a. in the workplace							
b. at height							
c. in confined areas							
d. with tools and equipment							
e. with materials and substances							
f. with movement/storage of materials							
g. by manual handling and mechanical lifting							

2.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to:							
a. site							
b. workplace							
c. company							
d. 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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. fires							
b. spillages							
c. injuries							
d. other task-related hazards.							

4. Select the required quantity and quality of resources for the methods of work to erect and dismantle access/working platforms.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:							
a. ladders/crawler boards							
b. stepladders/platform steps							
c. trestles							
d. proprietary staging/podiums							
e. proprietary towers							
f. mobile scaffold towers							
g. protection equipment and notices							
h. 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 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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
5.1 **protect the work and its surrounding area from damage**							
5.2 **minimise damage and maintain a clean workspace**							
5.3 describe how to protect work from damage and the purpose of protection in relation to:							
a. general workplace activities							
b. other occupations							
c. 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.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. organisational procedures for reporting circumstances which will affect the work programme							

7. Comply with the given contract information to erect and dismantle access/ working platforms to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **demonstrate the following work skills when erecting and dismantling access/working platforms:**							
a. **moving**							
b. **positioning/erecting**							
c. **securing**							
d. **checking**							
e. **dismantling**							
f. **removing**							
7.2 **erect, dismantle and store two of the following access equipment to given access regulations:**							
a. **ladders/crawler boards**							
b. **stepladders/platform steps**							
c. **proprietary towers**							
d. **trestle platforms**							
e. **mobile scaffold towers**							
f. **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:							
a. provide protection to the work area							
b. establish a base for equipment							
c. erect proprietary access equipment to manufacturer's instructions suitable for the work							
d. erect non-proprietary access equipment suitable for the work							
e. place protective screens and notices							
f. check/monitor equipment during the period of use							
g. dismantle and store access equipment							

	h. use tools and equipment							
	i. 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.							

Unit 265 Erecting and dismantling access/working platforms in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 266 Develop customer relationships

Level: 2

Unit aim:

The aim of this unit is to provide you with an awareness of:

- building customer confidence
- meeting customer expectations
- developing long-term customer relationships.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

1. Build their customer's confidence that the service they give will be excellent.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 **show that you behave assertively and professionally with customers**							
1.2 **allocate the time you take to deal with your customer following organisational guidelines**							
1.3 **reassure your customer that you are doing everything possible to keep the service promises made by the organisation**							

2. Meet the expectations of their customers.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 recognise when there may be a conflict between their customer's expectations and your organisation's service offer							
2.2 **balance your customer's expectations with your 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 your customer's expectations**							

3. Develop the long-term relationship between their customer and their organisation.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 give additional help and information to your customer in response to customer questions and comments about your organisation's services or products							
3.2 discuss expectations with your customer and explain how these compare with your organisation's services or products							
3.3 advise others of feedback received from your customer							
3.4 identify new ways of helping customers based on the feedback customers have given you							
3.5 identify added value that your organisation could offer to long-term customers							

4. Know how to develop customer relationships.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 describe your organisation's services or products							
4.2 explain the importance of customer retention							
4.3 explain how your 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 your organisation's service offer							
4.7 compare how customer expectations may change as the customer deals with your 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 your organisation's service offer							

Unit 266 Develop customer relationships

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 269 Injecting, blowing or spraying insulation to framed sections of buildings in the workplace

Level: 3

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- complying with responsible work practices and relevant legislation
- selecting the required resources
- minimising risk of damage
- completing in the allocated time.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question
WT Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 injecting, blowing or spraying insulation to framed sections of buildings.							
You must be able to:							
1.1 Interpret and extract relevant information from:							
a. drawings	*PER	SO	OQ	WQ	WT	PS	PD
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. suppliers and manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. suppliers and manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings.							
2. Know how to comply with environmentally responsible work practices to meet current legislation standards and official guidance when injecting, blowing or spraying insulation to framed sections of buildings.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. confined spaces							
c. at height							
d. tools and equipment							
e. materials and substances							

f. 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:							
a. site							
b. workplace							
c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. material and waste storage							
h. 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 injecting, blowing or spraying insulation to framed sections of buildings and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder.							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **Demonstrate compliance with relevant legislation, standards and official guidance when injecting, blowing or spraying insulation to framed sections of buildings in relation to the following:**							
a. **methods of work**							
b. **safe use of health and safety control equipment**							
c. **safe use of access equipment and harness systems**							

	d. **safe use, storage and handling of materials, tools and equipment**							
	e. **operative maintenance of installation equipment**							
	f. **specific risks to health including mental health**							
	g. **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 injecting, blowing or spraying insulation to framed sections of buildings in relation to:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV).							
3.3	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries							
	d. emergencies relating to occupational activities							
	e. identification of and reporting of asbestos containing materials.							
3.4	Describe how to report risks and hazards identified by the following:							
	a. risk assessment							
	b. personal assessment							
	c. methods of work							
	d. manufacturers' technical information							
	e. data sheets							
	f. statutory regulations							
	g. official guidance							

h. Control of Substances Hazardous to Health (COSHH).							
4. Select the required quantity and quality of resources for the methods of work to inject, blow or spray insulation to framed sections of buildings.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **Select resources associated with own work in relation to materials, components, fixings and finishes, tools and equipment.**							
4.2 **Check the suitability, compatibility and characteristics of the materials, components, fixings and finishes and 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:							
a. protective sheeting							
b. masking materials							
c. warning signs							
d. public protection equipment							
e. insulation materials							
f. sheathing board							
g. timber and metal studwork							
h. breather membranes and vapour control layers							
i. fire stops							
j. acoustic treatments							
k. plasterboard or finishing board							
l. vent sleeves							

m. down lighters							
n. primers							
o. expansion and movement joints, compression joints							
p. metal lath and plaster beads							
q. seal tapes and joints							
r. joint strips and mesh							
s. plaster finish							
t. sealants							
u. pre-formed trims							
v. all work tools and installation 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 the system designer specification and wastage associated with the method and procedure to inject, blow or spray insulation to framed sections of buildings.							
5. Minimise the risk of damage to the work and surrounding area when injecting, blowing or spraying insulation to framed sections of buildings.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. manufacturers' information							
e. data sheets							
f. statutory regulations							
g. official guidance							
6. Complete the work within the allocated time when injecting, blowing or spraying insulation to framed sections of buildings.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to carry out the work efficiently to inject, blow or spray insulation to framed sections of buildings to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD

7.1	**Carry out external and internal pre installation checks assessing, recording and reporting issues to include:**							
	a. **suitable access**							
	b. **property suitability**							
	c. **structural integrity**							
	d. **dampness**							
	e. **decay**							
	f. **vents and ventilation**							
	g. **services (gas, electric, water, media cables).**							
7.2	**Demonstrate the following work skills injecting, blowing or spraying insulation to framed sections of buildings:**							
	a. **removing**							
	b. **measuring**							
	c. **calibrating**							
	d. **marking out**							
	e. **cutting**							
	f. **line and level**							
	g. **drilling**							
	h. **fitting**							
	i. **fixing**							
	j. **filling**							
	k. **finishing**							
	l. **positioning and securing.**							
7.3	**Use and maintain all work tools and installation equipment.**							
7.4	**Remove existing defective insulation, boarding, breather membranes and vapour control layers.**							
7.5	**Assemble and operate installation processing equipment in line with manufacturers and system manuals.**							

7.6	**Prepare for and install insulation to framed sections of roof, floor, wall or ceiling structures, contained frame or open frame, to given working instructions, using at least one of the following methods:**							
	a. **injected**							
	b. **blown**							
	c. **sprayed.**							
7.7	**Calibrate equipment to measure density, flow and quality tests to ensure they are in line with manufacturers' specifications and material requirements.**							
7.8	**Remove defective timber, localised plaster and render.**							
7.9	**Fix finishing board, sheathing board and plasterboard.**							
7.10	**Make good any marks or screw and nail holes.**							
7.11	**Fit insulation between and/or to timber and metal studwork.**							
7.12	**Clean and disassemble installation processing equipment and pack away for transportation.**							
7.13	**Carry out post installation checks to ensure insulation complies with the design.**							
7.14	**Hand over and sign off to the customers satisfaction.**							
7.15	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:							
	a. 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							
	b. how to record and report issues or defects with the materials, components and finishes							
	c. why it is important to explain installation procedure to building occupants to include but not limited to the following:							
	i scope and work programme							
	ii safety requirements during the installation process							
	iii protection of property and personal items							
	iv specific benefits and implications to include homeowner information							

v agreed standards of making good								
d. how to work with, around and in close proximity to plant and machinery								
e. how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment								
f. how to identify and follow the installation quality requirements								
g. 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								
h. why it is important to carry out external and internal pre-installation checks								
i. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include:								
i suitable access								
ii property suitability								
iii structural integrity								
iv dampness								
v decay								
vi vents and ventilation								
vii services (gas, electric, water, media cables)								
j. why it is important to ensure that all necessary repairs are completed prior to installation								
k. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:								
i fire safety								
ii acoustics								
iii condensation analysis								
iv electrical								
v gas								
vi asbestos								

vii	Radon							
viii	rot							
ix	heritage							
x	architectural features							
xi	ecology							
xii	ventilation							
l. 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								
m. 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								
n. weather restrictions of the frame materials when temporarily exposed to the elements								
o. the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:								
i	blocked and restricted ventilation							
ii	windows and door replacement							
iii	firestops							
iv	weather seals							
v	silicone weatherproof coatings							
p. how to protect adjacent surfaces								
q. how to check for and protect hidden utilities								
r. how to remove wall fixtures including but not limited to: light switches, radiators, down lighters, handrails, as necessary to install the insulation in accordance with the specification, design, drawings and method statements								
s. how to prepare and remove existing wall lining, defective insulation, boarding, breather membranes and vapour control layers								
t. how to remove defective timber, localised plaster and render								

u. how to fix any holes, broken or damaged boards that form the backdrop for injected, blown and sprayed insulation.							
v. how to identify and report the existence of thermal bridges and water ingress not addressed in the design							
w. how to ensure pre-installation material checks are within specified parameters, to include checking and recording batch number and reporting defects							
x. how to calibrate equipment to measure density, flow and quality tests to ensure they are in line with manufacturers specifications and material requirements							
y. how to inject, blow and spray insulation between and or to timber and metal studwork							
z. how to ensure insulation thickness and type meets the design specification for fire, thermal and acoustic requirements							
aa. how to fit breather membrane and vapour control layer in conjunction with design, maintaining their integrity							
bb. how to fix finishing board, sheathing board and plasterboard in conjunction with design							
cc. how to apply mastic aesthetic sealant to all interface, joints and penetrations							
dd. how to make good any marks or screw and nail holes							
ee. how to scrim and tape joints ready for surface finish							
ff. how to reinstate fixtures and fittings							
gg. 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							
hh. the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							
ii. 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							
jj. how to clean and disassemble installation processing equipment and pack away for transportation							
kk. 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							
ll. how to handover and sign off to the customers' satisfaction							
mm. how to use all work tools and installation equipment							

nn. how to work at height using access equipment and harness systems							
oo. how and why maintenance of all work tools and installation equipment is carried out							
7.16 Describe the needs of other occupations and the importance of teamwork and when injecting, blowing or spraying insulation to framed sections of buildings.							

Unit 269 Injecting, blowing or spraying insulation to framed sections of buildings in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 270 Installing internal insulation to walls in the workplace

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting the required quality and quantity of resources
- minimising risk of damage
- completing to the required specification and contract.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 internal insulation to walls.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 Interpret and extract relevant information from:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. suppliers and manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. suppliers and manufacturers' information							
h. data sheets							
i. official guidance							
j. standards							
k. current legislation and regulations governing buildings.							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing internal insulation to walls.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. below ground level							
c. confined spaces							
d. at height							
e. tools and equipment							

f. materials and substances							
g. 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:							
a. site							
b. workplace							
c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. materials and waste storage							
h. 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 internal insulation to walls and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:							
3.1 **Demonstrate compliance with, relevant legislation, standards and official guidance when installing internal insulation to walls in relation to the following:**							
a. **methods of work**							

	b. **safe use of health and safety control equipment**							
	c. **safe use of access equipment and harness systems**							
	d. **safe use, storage and handling of materials, tools and equipment**							
	e. **specific risks to health including mental health**							
	f. **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 internal insulation to walls in relation to:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV).							
3.3	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries							
	d. emergencies relating to occupational activities							
	e. identification of and reporting of asbestos containing materials.							
3.4	Describe how to report risks and hazards identified by the following:							
	a. risk assessment							
	b. personal assessment							
	c. methods of work							
	d. suppliers and manufacturers' technical information							
	e. data sheets							
	f. statutory regulations							

g. official guidance							
h. Control of Substances Hazardous to Health (COSHH).							
4. Select the required quantity and quality of resources for the methods of work to install internal insulation to walls.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. protective sheeting internal							
b. masking materials							
c. warning signs							
d. vent sleeves							
e. insulation materials							
f. fixings and adhesives							
g. vapour control and breather membranes							
h. finishing board and coat							
i. combustion vents							
j. 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, length, thickness, area and wastage associated with the method and procedure to install insulation to internal walls.							
5. Minimise the risk of damage to the work and surrounding area when installing internal insulation to walls.	*PER	SO	OQ	WQ	WT	PS	PD
You must be able to:							
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. suppliers and manufactures' information							
e. data sheets							
f. statutory regulations							
g. official guidance.							

6. Complete the work within the allocated time when installing internal insulation to walls.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to carry out the work efficiently to install internal insulation to walls to the required specification.							
You must be able to:							
7.1 **Demonstrate the following work skills when installing internal insulation to walls:**							
a. **measuring**							
b. **marking out**							
c. **fixing**							
d. **finishing**							
e. **positioning**							
f. **sealing**							
g. **securing.**							
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:**							
a. **suitable access**							
b. **property suitability**							
c. **structural integrity**							

	d. **dampness**							
	e. **decay**							
	f. **vents and ventilation**							
	g. **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	**Fit breather membrane and vapour control layers.**							
7.6	**Prepare and install internal wall insulation system to given system designer specification, method statement and the required standard using the following methods to given working instructions:**							
	a. **placed**							
	b. **mechanically or adhesively fixed including thermal boards.**							
7.7	**Protect and reinstate, access routes, existing fixtures and fittings (carpets).**							
7.8	**Remove, replace and reinstate skirting, coving and cornices, radiators and electrical sockets.**							
7.9	**Carry out repairs after installation.**							
7.10	**Hand over and sign off to the customer's satisfaction.**							
7.11	**Carry out post installation checks.**							
7.12	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:							
	a. 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							
	b. how to record and report issues or defects with the materials, components and finishes							
	c. why it is important to carry out external and internal pre-installation checks							
	d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include but not limited to:							
	i suitable access							

ii	property suitability							
iii	structural integrity							
iv	dampness							
v	condensation							
vi	penetrating damp							
vii	rising damp							
viii	decay							
ix	vents and ventilation							
x	services (gas, electric, water, media cables)							
xi	architectural features							
xii	condition of down pipes,							
xiii	roof overhangs and gutters							
xiv	external and internal finish condition							
xv	wall moisture content							
xvi	damp proof course height above floor level							
xvii	condition of ground and suspended floor joists							
e. why it is important to ensure that all necessary repairs are completed prior to installation								
f. how to identify thermal bridges and understand solutions and limitations								
g. the implications for party wall thermal bridge								
h. 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								
i. how to check for hidden utilities how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:								
i	condition of building fabric							
ii	identification of any areas of potential water penetration							

	iii	visibility and completeness of damp proof course						
	iv	condition of window and door seals						
	v	height of internal floors in relation to external floor height						
	vi	condition of roof						
	vii	damaged or spalled brickwork						
	viii	drainage and down pipes						
	ix	protection and existence of sub floor ventilation						
	x	cavity width and identification of any debris						
	xi	electrical cables, media cables, junction and meter boxes, signal receiving equipment						
	xii	flues, gas pipes, chimneys and combustion air ventilators						
	xiii	identification of protected wildlife (nesting birds, bees, bats)						
j. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:								
	i	fire safety						
	ii	electrical						
	iii	media cables						
	iv	signal receiving equipment						
	v	junction boxes						
	vi	asbestos						
	vii	Radon						
	viii	heritage						
	ix	architectural and archaeological features						
	x	ecology						
	xi	ventilation						
	xii	rot.						

k.	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							
l.	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							
m.	why it is important to avoid unintended consequences							
n.	why it is important to explain installation procedure to building occupants to include but not limited to the following:							
	i scope and work programme							
	ii safety requirements during the installation process							
	iii protection of property and personal items							
	iv specific benefits and implications to include homeowner information							
	v agreed standards of making good							
o.	the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:							
	i wall ties							
	ii windows							
	iii damp proof course (dpc)							
	iv renders							
	v Tyrolean coatings							
	vi silicone weather-proof coatings							
p.	how to work with, around and in close proximity to plant and machinery							
q.	how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
r.	how to identify and follow the installation quality requirements							
s.	which wall types are unsuitable for internal wall insulation							
t.	the implications of insulating a terrace or semi-detached house regarding party wall bridge							

u. why it is important to ensure pre-installation material checks are within specified parameters to include checking and recording batch number and reporting defects							
v. how to protect and reinstate, access routes, existing fixtures and fittings (carpets)							
w. how to prepare Internal walls for insulation							
x. how to treat external walls in line with system holder specification							
y. the importance of ensuring all work to services (gas, electric, water, media cables) is carried out by suitably qualified people							
z. how to remove, replace and reinstate skirting, coving and cornices, radiators and electrical sockets							
aa. how to construct straps to walls to contain or hold insulation							
bb. how to fit mechanically or adhesively fixed insulation including thermal boards							
cc. how to fit breather membrane and vapour control layers							
dd. the importance of ensuring the integrity of breather membranes and vapour control layers							
ee. 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							
ff. the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							
gg. 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							
hh. why it is important to maintain or install fire resistant barriers							
ii. how to maintain soundproofing							
jj. how to seal joints, perimeters and penetrations							
kk. why it is important to minimise thermal bridging through compliance with design detail ensuring a consistent level of insulation to the area being insulated							
ll. how to carry out any repair after installation							
mm. why it is important to complete post installation checks in accordance with the system designer installations operations manual and report issues							
nn. why it is important to provide post installation advice and guidance to building occupants and client including homeowner packs							

oo. how to handover and sign off to the customers satisfaction							
pp. how to use all work tools and installation equipment in line with manufacturers' and system specification							

Unit 270 Installing internal insulation to walls in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 271 Installing insulation to framed sections of buildings in the workplace

Level: 3

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting the required quantity and quality of resources
- minimising the risk of damage
- completing the work within the allocated time and complying with given contract information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 framed sections of buildings.							
You must be able to:							
1.1 Interpret and extract relevant information from:	*PER	SO	OQ	WQ	WT	PS	PD
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings.							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing insulation to framed sections of buildings.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. at height							
c. tools and equipment							
d. materials and substances							

e. movement and storage of materials by manual handling and mechanical lifting.							
f. Describe the organisational security procedures for tools, equipment and personal belongings in relation to:							
g. site							
h. workplace							
i. siting and location of vehicles							
j. company							
k. customer							
l. access equipment							
m. materials and waste storage							
n. the general public.							
2.2 Explain the accident reporting procedures and who is responsible for making reports.							
2.3 Describe the types of fire extinguishers available when Installing insulation to framed sections of buildings and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder.							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 Demonstrate compliance with, relevant legislation, standards and official guidance when installing insulation to framed sections of buildings in relation to the following:							
a. methods of work							
b. safe use of health and safety control equipment							

	c. safe use of access equipment and harness systems							
	d. safe use, storage and handling of materials, tools and equipment							
	e. specific risks to health including mental health							
	f. 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 framed sections of buildings in relation to:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV).							
3.3	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries							
	d. emergencies relating to occupational activities							
	e. identification of and reporting of asbestos containing materials.							
3.4	Describe how to report risks and hazards identified by the following:							
	a. risk assessment							
	b. personal assessment							
	c. methods of work							
	d. manufacturers' technical information							
	e. data sheets							
	f. statutory regulations							
	g. official guidance							

h. Control of Substances Hazardous to Health (COSHH).							
4. Select the required quantity and quality of resources for the methods of work to install insulation to framed sections of buildings.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. protective sheeting							
b. masking materials							
c. warning signs							
d. public protection equipment							
e. Insulation materials							
f. sheathing board							
g. timber and metal studwork							
h. breather membranes and vapour control layers							
i. fire stops							
j. acoustic treatments							
k. plasterboard or finishing board							
l. vent sleeves							

m. down lighters							
n. primers							
o. expansion and movement joints, compression joints							
p. metal lath and plaster beads							
q. seal tapes and joints							
r. joint strips and mesh							
s. plaster finish							
t. sealants							
u. mechanical fixing components							
v. pre-formed trims							
w. 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.							
4.9 Describe how to calculate the quantity, length and area of materials required and wastage associated with the method and procedure to install insulation to framed sections of buildings.							
5. Minimise the risk of damage to the work and surrounding area when installing insulation to framed sections of buildings.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. suppliers and manufactures' information							
e. data sheets							
f. statutory regulations							
g. official guidance.							
6. Complete the work within the allocated time when installing insulation to framed sections of buildings.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to carry out the work efficiently to install insulation to framed sections of buildings to the required specification.							

You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **Demonstrate the following work skills when installing insulation to framed sections of buildings:**							
a. **removing**							
b. **measuring**							
c. **marking out**							
d. **cutting**							
e. **line**							
f. **levelling**							
g. **drilling**							
h. **fitting**							
i. **fixing**							
j. **filling**							
k. **finishing**							
l. **positioning**							
m. **securing.**							
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:**							
a. **suitable access**							
b. **property suitability**							
c. **structural integrity**							
d. **dampness**							
e. **decay**							
f. **vents and ventilation**							
g. **services (gas, electric, water, media cables)**							
7.4 **Prepare and remove existing defective insulation, boarding, breather membranes and vapour control layers.**							

7.5	**Remove defective timber, localised plaster and render.**							
7.6	**Fix finishing board, sheathing board and plasterboard.**							
7.7	**Make good any marks or screw and nail holes.**							
7.8	**Fit insulation between and/or to timber and metal studwork.**							
7.9	**Carry out installation checks to ensure insulation complies with the design.**							
7.10	**Provide post installation advice and guidance to building occupants including homeowner packs.**							
7.11	**Hand over and sign off to the customers satisfaction.**							
7.12	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:							
	a. 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							
	b. how to record and report issues or defects with the materials, components and finishes							
	c. why it is important to explain installation procedure to building occupants to include but not limited to the following:							
	i. scope and work programme							
	ii. safety requirements during the installation process							
	iii. protection of property and personal items							
	iv. specific benefits and implications to include homeowner information							
	v. agreed standards of making good							
	d. how to work with, around and in close proximity to plant and machinery							
	e. how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
	f. how to identify and follow the installation quality requirements							
	g. 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							

h. why it is important to carry out external and internal pre-installation checks							
i. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include:							
i. suitable access							
ii. property suitability							
iii. structural integrity							
iv. dampness							
v. decay							
vi. vents and ventilation							
vii. services (gas, electric, water, media cables)							
j. why it is important to ensure that all necessary repairs are completed prior to installation							
k. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:							
i. fire safety							
ii. acoustics							
iii. condensation analysis							
iv. electrical							
v. gas							
vi. asbestos							
vii. Radon							
viii. rot							
ix. heritage							
x. architectural features							
xi. ecology							
xii. ventilation							

l. 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							
m. 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							
n. why it is important to avoid unintended consequences							
o. how to identify potential thermal bridges							
p. weather restrictions of the frame materials when temporarily exposed to the elements							
q. the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:							
i. blocked and restricted ventilation							
ii. windows and door replacement							
iii. firestops							
iv. weather seals							
v. silicone weatherproof coatings							
r. how to protect adjacent surfaces							
s. how to check for and protect hidden utilities							
t. how to remove wall fixtures including but not limited to light switches, radiators, down lighters, handrails, as necessary to install the insulation in accordance with the specification, design, drawings and method statements							
u. how to prepare and remove existing wall lining, defective insulation, boarding, breather membranes and vapour control layers							
v. how to remove defective timber, localised plaster and render							
w. how to fix any holes, broken or damaged boards that form the backdrop for fixed, insulation.							
x. how to identify and report the existence of thermal bridges and water ingress not addressed in the design							
y. how to ensure pre-installation material checks are within specified parameters							
z. how to cut, apply, fix or fit insulation between and or to timber and metal studwork							

aa. how to ensure insulation thickness and type meets the design specification for fire, thermal and acoustic requirements							
bb. how to fit breather membrane and vapour control layer in conjunction with design, maintaining their integrity							
cc. how to fix finishing board, sheathing board and plasterboard in conjunction with design							
dd. how to apply mastic aesthetic sealant to all interface, joints and penetrations							
ee. how to make good any marks or screw and nail holes							
ff. how to scrim and tape joints ready for surface finish							
gg. how to reinstate fixtures and fittings							
hh. 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							
ii. the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							
jj. 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							
kk. 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							
ll. how to handover and sign off to the customers' satisfaction							
mm. how to use all work tools and equipment							
nn. how to work at height using access equipment and harness systems							
oo. how and why maintenance of all work tools and equipment is carried out							
7.13 Describe the needs of other occupations and the importance of teamwork and communication when installing insulation to framed sections of buildings.							

Unit 271 Installing insulation to framed sections of buildings in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 272 Injecting, blowing and spraying insulation to internal walls in the workplace

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting the required quantity and quality of resources
- minimising the risk of damage
- completing the work within the allocated time and complying with given contract information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 injecting, blowing and spraying insulation to internal walls.							
You must be able to:							
1.1 Interpret and extract relevant information from:	*PER	SO	OQ	WQ	WT	PS	PD
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. suppliers and manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings							
2. Know how to comply with environmentally responsible work practices to meet current legislation standards and official guidance when injecting, blowing and spraying insulation to internal walls.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. below ground level							
c. confined spaces							
d. at height							
e. tools and equipment							

f. materials and substances							
g. 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:							
a. site							
b. workplace							
c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. material and waste storage							
h. 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 injecting, blowing and spraying insulation to internal walls and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **Demonstrate compliance with relevant legislation, standards and official guidance when injecting, blowing and spraying insulation to internal walls in relation to the following:**							
a. **methods of work**							

	b. **safe use of health and safety control equipment**							
	c. **safe use of access equipment and harness systems**							
	d. **safe use, storage and handling of materials, tools and equipment**							
	e. **operative maintenance of installation equipment**							
	f. **specific risks to health including mental health**							
	g. **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 injecting, blowing and spraying insulation to internal walls in relation to:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV)							
3.3	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries							
	d. emergencies relating to occupational activities							
	e. identification of and reporting of asbestos containing materials							
3.4	Describe how to report risks and hazards identified by the following:							
	a. risk assessment							
	b. personal assessment							
	c. methods of work							
	d. suppliers and manufacturers' technical information							
	e. data sheets							

f. statutory regulations							
g. official guidance							
h. Control of Substances Hazardous to Health (COSHH)							
4. Select the required quantity and quality of resources for the methods of work to inject, blow and spray insulation to internal walls.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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, fixings 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:							
a. protective sheeting							
b. masking materials							
c. warning signs							
d. vent sleeves							
e. insulation materials							
f. fixings and adhesives							
g. vapour control and breather membranes							
h. finishing board and coat							
i. combustion vents							
j. all work tools							

k. installation 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, length, thickness, area and wastage associated with the method and procedure to inject, blow and spray insulation to internal walls.							
5. Minimise the risk of damage to the work and surrounding area when injecting, blowing and spraying insulation to internal walls.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. manufacturers' information							
e. data sheets							

f. statutory regulations							
g. official guidance							
6. Complete the work within the allocated time when injecting, blowing and spraying insulation to internal walls.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme							
7. Comply with the given contract information to carry out the work efficiently to inject, blow and spray insulation to internal walls to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **Demonstrate the following work skills when injecting, blowing and spraying insulation to internal walls:**							
a. **measuring**							
b. **marking out**							
c. **fixing**							
d. **finishing**							
e. **positioning**							
f. **sealing and securing**							
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:**							

	a. **suitable access**							
	b. **property suitability**							
	c. **structural integrity**							
	d. **dampness**							
	e. **decay**							
	f. **vents and ventilation**							
	g. **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	**Fit breather membrane and vapour control layers.**							
7.6	**Prepare and install Internal wall insulation system to given system designer specification, method statement and the required standard using at least two of the following methods to given working instructions:**							
	a. **injected**							
	b. **blown**							
	c. **sprayed**							
7.7	**Assemble and operate installation processing equipment in line with manufacturers and system manuals.**							
7.8	**Calibrate equipment to measure density, flow and quality tests to ensure they are in line with manufacturers specifications and material requirements.**							
7.9	**Protect and reinstate, access routes, existing fixtures and fittings (carpets).**							
7.10	**Remove, replace and reinstate skirting, coving and cornices, radiators and electrical sockets.**							
7.11	**Carry out repairs after installation.**							
7.12	**Clean and disassemble installation processing equipment and pack away for transportation.**							
7.13	**Hand over and sign off to the customers satisfaction.**							
7.14	**Carry out post installation checks.**							
7.15	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:							

a.	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							
b.	how to record and report issues or defects with the materials, components and finishes							
c.	why it is important to carry out external and internal pre-installation checks							
d.	how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include but not limited to:							
	i suitable access							
	ii property suitability							
	iii structural integrity							
	iv dampness							
	v condensation							
	vi penetrating damp							
	vii rising damp							
	viii decay							
	ix vents and ventilation							
	x services (gas, electric, water, media cables)							
	xi condition of down pipes,							
	xii roof overhangs and gutters							
	xiii external and internal finish condition							
	xiv wall moisture content							
	xv damp proof course height above floor level							
	xvi condition of ground and suspended floor joists							
e.	how to identify thermal bridges and understand solutions and limitations							
f.	why it is important to ensure that all necessary repairs are completed prior to installation							
g.	the implications for party wall thermal bridge							

h. 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								
i. how to check for hidden utilities								
j. how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:								
i condition of building fabric								
ii identification of any areas of potential water penetration								
iii visibility and completeness of damp proof course								
iv condition of window and door seals								
v height of internal floors in relation to external floor height								
vi condition of roof								
vii damaged or spalled brickwork								
viii drainage and down pipes								
ix protection and existence of sub floor ventilation								
x cavity width and identification of any debris								
xi flues, gas pipes, chimneys and combustion air ventilators								
xii identification of protected wildlife (nesting birds, bees, bats)								
k. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:								
i fire safety								
ii electrical								
iii media cables								
iv signal receiving equipment								
v junction and meter boxes								
vi asbestos								
vii Radon								

viii	heritage							
ix	archaeological and architectural features							
x	ecology							
xi	ventilation							
xii	rot							
l.	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							
m.	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							
n.	why it is important to avoid unintended consequences							
o.	why it is important to explain installation procedure to building occupants to include but not limited to the following:							
i	scope and work programme							
ii	safety requirements during the installation process							
iii	protection of property and personal items							
iv	specific benefits and implications to include homeowner information							
v	agreed standards of making good							
p.	the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:							
i	wall ties							
ii	windows							
iii	damp proof course							
iv	renders							
v	Tyrolean coatings							
vi	silicone weatherproof coatings							
q.	how to work with, around and in close proximity to plant and machinery							

r. how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
s. how to identify and follow the installation quality requirements							
t. which wall types are unsuitable for internal wall insulation							
u. the implications of insulating a terrace or semi-detached house regarding party wall bridge							
v. why it is important to ensure pre-installation material checks are within specified parameters to include checking and recording batch number and reporting defects							
w. how to protect and reinstate, access routes, existing fixtures and fittings (carpets)							
x. how to prepare internal walls for insulation							
y. how to treat external walls in line with system holder specification							
z. the importance of ensuring all work to services (gas, electric, water, media cables) is carried out by suitably qualified people							
aa. how to remove, replace and reinstate skirting, coving and cornices, radiators and electrical sockets							
bb. how to calibrate equipment to measure density, flow and quality tests to ensure they are in line with manufacturers specifications and material requirements							
cc. how to install injected, blown and sprayed insulation							
dd. how to fit breather membrane and vapour control layers							
ee. 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							
ff. the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							
gg. why it is important to immediately record and report unforeseen events							
hh. why it is important to maintain or install fire resistant barriers							
ii. how to maintain sound proofing							
jj. how to seal joints, perimeters and penetrations							
kk. why it is important to minimise thermal bridging through compliance with design detail and ensuring a consistent level of insulation to the area being insulated							
ll. how to carry out any repair after installation							

mm. how to clean and disassemble installation processing equipment and pack away for transportation							
nn. why it is important record and report unforeseen events including but not limited to equipment malfunctions, situations and faults not identified in the original design							
oo. why it is important to complete post installation checks in accordance with the system designer installations operations manual and report issues							
pp. why it is important to provide post installation advice and guidance to building occupants and client including homeowner packs							
qq. how to handover and sign off to the customers satisfaction							
rr. how to use all work tools and installation equipment in line with manufacturers' and systems specifications							
ss. how to work at height using access equipment and harness systems							
tt. how and why maintenance of all work tools and installation equipment is carried out							
7.16 Describe the needs of other occupations and the importance of teamwork and communication when injecting, blowing and spraying insulation to internal walls.							

Unit 272 Injecting, blowing and spraying insulation to internal walls in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 273 Installing blown insulation to cold roofs in the workplace

Level: 2

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting the required quantity and quality of resources
- minimising the risk of damage
- completing the work within the allocated time and complying with given contract information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 blown insulation to cold roofs.							
You must be able to:							
1.1 Interpret and extract relevant information from:	*PER	SO	OQ	WQ	WT	PS	PD
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings.							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing blown insulation to cold roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe your responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. confined spaces							
c. at height							
d. tools and equipment							
e. materials and substances							

f. 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:							
a. site							
b. workplace							
c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. material and waste storage							
h. 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 blown insulation to cold roofs and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **Demonstrate compliance with, relevant legislation, standards and official guidance when installing blown insulation to cold roofs in relation to the following:**							
a. **methods of work**							
b. **safe use of health and safety control equipment**							

	c. **safe use of access equipment and harness systems**							
	d. **safe use, storage and handling of materials, tools and equipment**							
	e. **operative maintenance of installation equipment**							
	f. **specific risks to health including mental health**							
	g. **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 blown insulation to cold roofs in relation to:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV).							
3.3	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries							
	d. emergencies relating to occupational activities							
	e. identification of and reporting of asbestos containing materials.							
	f. Describe how to report risks and hazards identified by the following:							
	g. risk assessment							
	h. personal assessment							
	i. methods of work							
	j. manufacturers' technical information							
	k. data sheets							
	l. statutory regulations							

m. official guidance							
n. Control of Substances Hazardous to Health (COSHH).							
4. Select the required quantity and quality of resources for the methods of work to install blown insulation to cold roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **Select resources associated with own work in relation to materials, components, fixings and finishes, tools and equipment.**							
4.2 **Check the suitability, compatibility and characteristics of the materials, components, fixings 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:							
a. insulation							
b. pipe insulation							
c. tank and cylinder jackets							
d. fixings and ancillary items							
e. access boards							
f. loft hatches							
g. soffit and fascia boards							
h. tile vents							
i. ridge tiles							
j. sarking felt vents							
k. draught-proofing materials							

l. fire rated caps							
m. cable protection							
n. all work tools							
o. installation 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 the system designer specification and wastage associated with the method and procedure to install blown insulation to cold roofs.							
5. Minimise the risk of damage to the work and surrounding area when installing blown insulation to cold roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. current legislation							
b. environmental responsibilities							

c. organisational procedures							
d. manufacturers' information							
e. data sheets							
f. statutory regulations							
g. official guidance.							
6. Complete the work within the allocated time when installing blown insulation to cold roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to carry out the work efficiently to install blown insulation to cold roofs to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **Demonstrate the following work skills when installing blown insulation to cold roofs:**							
a. **removing**							
b. **measuring**							
c. **marking out**							
d. **calculating**							
e. **making good.**							

7.2	**Use and maintain all work tools and installation equipment.**							
7.3	**Carry out pre-installation checks, assessing, recording and reporting issues to include:**							
	a. **suitable access**							
	b. **property suitability**							
	c. **structural integrity**							
	d. **dampness**							
	e. **decay**							
	f. **exposure ratings**							
	g. **vents and ventilation**							
	h. **services (gas, electric, water, media cables).**							
7.4	**Prepare and install blown insulation to cold roofs in accordance with the specification, design, drawings and method statements to given working instructions.**							
7.5	**Recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:**							
	a. **condition of building fabric**							
	b. **identification of any areas of potential water penetration**							
	c. **condition of roof.**							
7.6	**Create and protect platforms and walkways for access and storage.**							
7.7	**Remove and secure building occupants stored items.**							
7.8	**Identify and remove infested, damaged and contaminated insulation from roof area.**							
7.9	**Identify and install passive ventilation as required by the design and report any identified ventilation limitations.**							
7.10	**Identify and report the potential risk of uninsulated omitted areas in relation to increased condensation following installation relating to roof coverings (pitched and flat) and roof structures (timber, metal, concrete).**							
7.11	**Check for and protect hidden utilities.**							
7.12	**Identify insulation materials and their characteristics for cold roofs, pipes, storage tanks, cylinders and access hatches.**							

7.13 **Confirm pre-installation material checks are within specified parameters to include checking and recording batch number and reporting defects.**							
7.14 **Assemble and operate installation processing equipment in line with manufacturers and system manuals.**							
7.15 **Calibrate equipment to measure density, flow and quality tests to ensure they are in line with manufacturers' specifications and material requirements.**							
7.16 **Install passive ventilation and safeguard existing ventilation.**							
7.17 **Prepare and fix pipe, tank and cylinder insulation.**							
7.18 **Ensure the insulation is contained within the prescribed areas.**							
7.19 **Protect downlighters by installation of fire rated caps to the required specification.**							
7.20 **Ensure insulation around electrical apparatus will not create fire hazards (light fittings, electrical units and cables).**							
7.21 **Minimise the effects of thermal bridging through compliance with design detail and ensuring a consistent level of insulation of the installed area.**							
7.22 **Install and maintain fire resistant barriers.**							
7.23 **Clean and disassemble installation processing equipment and pack away for transportation.**							
7.24 **Complete post installation checks in accordance with the system designer installations operations manual and report issues including but not limited to safeguarding the combustion ventilation and report defects.**							
7.25 **Provide post installation advice and guidance to building occupants including homeowner packs, warning labels and data sheets.**							
7.26 **Use all work tools and installation equipment in line with manufacturers and system specifications.**							
7.27 **Work at height using access equipment and harness systems.**							
7.28 **Use and maintain all work tools and installation equipment.**							
7.29 **Hand over and sign off to the customers satisfaction.**							
7.30 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:							
a. 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							

b. how to record and report issues or defects with the materials, components and finishes								
c. why it is important to carry out external and internal pre-installation checks								
d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include:								
i suitable access								
ii property suitability								
iii structural integrity								
iv dampness								
v decay								
vi vents and ventilation								
vii services (gas, electric, water, media cables)								
e. why it is important to ensure that all necessary repairs are completed prior to installation								
f. the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:								
i timber treatment								
ii re-wiring								
iii loft guarantees								
iv building warranties								
g. 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								
h. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:								
i fire safety								
ii electrical								
iii asbestos								
iv Radon								

v	heritage							
vi	ecology							
vii	architectural features							
viii	ventilation							
i.	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							
j.	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							
k.	why it is important to avoid unintended consequences							
l.	why it is important to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:							
i	condition of building fabric							
ii	identification of any areas of potential water penetration							
iii	condition of roof							
iv	damaged or spalled brickwork into gable ridge							
v	drainage and down pipes							
m.	how to work with, around and in close proximity to plant and machinery							
n.	how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
o.	why it is important to explain installation procedure to building occupants to include but not limited to the following:							
i	scope and work programme							
ii	safety requirements during the installation process							
iii	protection of property and personal items							
iv	specific benefits and implications to include homeowner information							
v	agreed standards of making good							

p. how to identify and follow the installation quality requirements							
q. how to create and protect platforms and walkways							
r. how to remove and secure stored items							
s. why it is important to identify and remove infested, damaged and contaminated insulation from roof area							
t. how to install passive ventilation as required by the design and report any identified ventilation limitations							
u. how to identify and report the potential risk of uninsulated omitted areas in relation to increased condensation following installation relating to roof coverings (pitched and flat) and roof structures (timber, metal, concrete)							
v. the importance of ensuring all work to services (gas, electric, water, media cables) is carried out by suitably qualified people							
w. how to check for and protect hidden utilities							
x. how to ensure pre-installation material checks are within specified parameters to include checking and recording batch number and reporting defects							
y. how to assemble and operate installation processing equipment in line with manufacturers and system manuals							
z. how to calibrate equipment to measure density, flow and quality tests to ensure they are in line with manufacturers specifications and material requirements							
aa. how to install passive ventilation and safeguard existing ventilation							
bb. how to prepare and install blown insulation to cold roofs							
cc. why it is important to minimise thermal bridging through compliance with design detail and ensuring a consistent level of insulation of the installed area							
dd. how to prepare and fix pipe, tank and cylinder insulation							
ee. how to ensure the insulation is contained within the prescribed areas							
ff. how to protect downlighters by installation of fire rated caps to the required specification							
gg. how to ensure insulation around electrical apparatus will not create fire hazards (light fittings, electrical units and cables)							
hh. how to install and maintain fire resistant barriers							
ii. how to clean and disassemble installation processing equipment and pack away for transportation							

jj.	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						
kk.	the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity						
ll.	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						
mm.	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						
nn.	why it is important to provide post installation advice and guidance to building occupants including homeowner packs, warning labels and data sheets						
oo.	how to handover and sign-off to the customers satisfaction						
pp.	how to use all work tools and installation equipment in line with manufacturers and system specifications						
qq.	how to work at height using access equipment and harness systems						
rr.	how and why maintenance of all work tools and installation equipment is carried out.						
7.31	Describe the needs of other occupations and the importance of teamwork and communication when installing blown insulation to cold roofs.						

Unit 273 Installing blown insulation to cold roofs in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 274 Installing insulation to create warm roofs in the workplace

Level: 3

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting the required quantity and quality of resources
- minimising the risk of damage
- completing the work within the allocated time and complying with given contract information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 create warm roofs in the workplace.							
You must be able to:							
1.1 Interpret and extract relevant information from:	*PER	SO	OQ	WQ	WT	PS	PD
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings.							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing insulation to create warm roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. confined spaces							
c. at height							
d. tools and equipment							
e. materials and substances							

f. 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:							
a. site							
b. workplace							
c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. material and waste storage							
h. 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 create warm roofs and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder.							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **Demonstrate compliance with, relevant legislation, standards and official guidance when installing insulation to create warm roofs in relation to the following:**							
a. **methods of work**							
b. **safe use of health and safety control equipment**							

	c. **safe use of access equipment and harness systems**							
	d. **safe use, storage and handling of materials, tools and equipment**							
	e. **specific risks to health including mental health**							
	f. **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 external wall insulation in relation to:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV).							
3.3	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries.							
	d. emergencies relating to occupational activities							
	e. identification of and reporting of asbestos containing materials.							
	f. Describe how to report risks and hazards identified by the following:							
	g. risk assessment							
	h. personal assessment							
	i. methods of work							
	j. manufacturers' technical information							
	k. data sheets							
	l. statutory regulations							
	m. official guidance							

n. Control of Substances Hazardous to Health (COSHH).							
4. Select the required quantity and quality of resources for the methods of work to install insulation to create warm roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **Select resources associated with own work in relation to materials, components, 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:							
a. protective sheeting							
b. warning signs							
c. temporary barriers							
d. insulation materials							
e. air and vapour control materials							
f. insulation fixings							
g. soffit and fascia boards							
h. tile vents							
i. ridge tiles							
j. sarking felt vents							
k. fire rated caps							
l. cable protection							

m. 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 system designer specification and wastage associated with the method and procedure to install insulation to create warm roofs.							
5. Minimise the risk of damage to the work and surrounding area when installing insulation to create warm roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. suppliers and manufactures' information							
e. data sheets							
f. statutory regulations							

g. official guidance.							
6. Complete the work within the allocated time when installing insulation to create warm roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to carry out the work efficiently to install insulation to create warm roofs to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **Demonstrate the following work skills when installing insulation to create warm roofs:**							
a. **measuring**							
b. **marking out**							
c. **cutting**							
d. **fitting**							
e. **positioning**							
f. **securing**							
g. **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:**							

	a. **suitable access**							
	b. **property suitability**							
	c. **structural integrity**							
	d. **dampness**							
	e. **decay**							
	f. **vents and ventilation**							
	g. **services (gas, electric, water, media cables).**							
7.4	**Prepare and install insulation to the roof pitch using at least one of the following methods in compliance with system specification, manufacturers' instructions, current regulations and to given work instructions:**							
	a. **placed**							
	b. **mechanically or adhesively fixed.**							
7.5	**Prepare and install insulation to pipes, tanks and/or cylinders in compliance with current regulations and to given working instructions.**							
7.6	**Install air and vapour control layers.**							
7.7	**Protect electrical services, lighting, media, high amperage cables.**							
7.8	**Create and protect platforms and walkways for access and storage.**							
7.9	**Remove and secure building occupants stored items.**							
7.10	**Install passive ventilation and safeguard existing ventilation in accordance with the system design.**							
7.11	**Carry out post installation checks to ensure adequate ventilation above and below insulation.**							
7.12	**Maintain fire resistant barriers.**							
7.13	**Seal joints, perimeters and penetrations.**							
7.14	**Minimise the effects of thermal bridging.**							
7.15	**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.**							
7.16	**Provide post installation advice and guidance to building occupants including homeowner packs.**							
7.17	**Hand over 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:							
	a. 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							
	b. how to record and report issues or defects with the materials, components and finishes							
	c. why it is important to carry out external and internal pre-installation checks							
	d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include:							
	i suitable access							
	ii property suitability							
	iii structural integrity							
	iv dampness							
	v decay							
	vi vents and ventilation							
	vii services (gas, electric, water, media cables)							
	e. why it is important to ensure that all necessary repairs are completed prior to installation							
	f. 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							
	g. how to identify and follow the installation quality requirements							
	h. how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:							
	i condition of building fabric							
	ii identification of any areas of potential water penetration							
	iii condition of roof							
	iv damaged or spalled brickwork (gable end)							

v	drainage and down pipes							
i. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:								
i	fires safety							
ii	electrical							
iii	asbestos							
iv	Radon							
v	Heritage							
vi	architectural features							
vii	ecology							
viii	ventilation							
j. 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								
k. 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								
l. why it is important to avoid unintended consequences								
m. why it is important to explain installation procedure to building occupants to include but not limited to the following:								
i	scope and work programme							
ii	safety requirements during the installation process							
iii	protection of property and personal items							
iv	specific benefits and implications to include homeowner information							
v	agreed standards of making good							
n. the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:								
i	timber treatment							

ii	replacement roof tiles and felt							
iii	re-wiring							
iv	loft guarantees							
v	roof replacement warranties							
o.	how to work with, around and in close proximity to plant and machinery							
p.	how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
q.	how to work in confined spaces							
r.	how to create and protect platforms and walkways							
s.	why it is important to identify and remove infested, damaged and contaminated insulation from roof areas							
t.	how to remove and secure building occupants stored items							
u.	how to identify and install passive ventilation, maintain existing ventilation and report any ventilation limitations identified							
v.	the importance of ensuring all work to services (gas, electric, water, media cables) is carried out by suitably qualified people							
w.	how to check for and protect hidden utilities							
x.	why it is important to ensure pre-installation material checks are within specified parameters to include checking and recording batch number and reporting defects							
y.	how to prepare and install, placed, mechanically or adhesively fixed insulation to create warm roofs							
z.	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							
aa.	the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							
bb.	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							
cc.	why it is important to ensure adequate ventilation above and below insulation							
dd.	why it is important to minimise thermal bridging through compliance with design detail ensuring a consistent level of insulation to the area being insulated							

ee. 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							
ff. how to ensure the insulation is contained within the prescribed areas							
gg. how to ensure insulation around electrical apparatus will not create fire hazards (lighting, media and high amperage cables)							
hh. why it is important to maintain fire resistant barriers							
ii. how to seal joints, perimeters and penetrations							
jj. why it is important to recognise the potential risk of increased condensation following installation relating to roof coverings (pitched and flat) and roof structures (timber, metal, concrete)							
kk. 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							
ll. why it is important to provide advice to building occupants to preserve the integrity of the insulation (insulation data sheet and warning labels)							
mm. how to handover and sign off to the customers satisfaction							
nn. how to use all work tools and equipment							
oo. how to work at height using access equipment and harness systems							
pp. how and why maintenance of all work tools and equipment is carried out							
7.19 Describe the needs of other occupations and the importance of teamwork and communication when installing insulation to create warm roofs.							

Unit 274 Installing insulation to create warm roofs in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 275 Spraying insulation to create warm roofs in the workplace

Level: 3

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting the required quantity and quality of resources
- minimising the risk of damage
- completing the work within the allocated time and complying with given contract information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 create warm roofs.							
You must be able to:							
1.1 Interpret and extract relevant information from:	*PER	SO	OQ	WQ	WT	PS	PD
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings.							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when spraying insulation to create warm roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. confined spaces							
c. at height							
d. tools and equipment							

e. materials and substances							
f. 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:							
a. site							
b. workplace							
c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. material and waste storage							
h. 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 create warm roofs and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder.							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **Demonstrate compliance with relevant legislation, standards and official guidance when spraying insulation to create warm roofs in relation to the following:**							
a. **methods of work**							

	b. **safe use of health and safety control equipment**							
	c. **safe use of access equipment and harness systems**							
	d. **safe use, storage and handling of materials, tools and equipment**							
	e. **operative maintenance of installation equipment**							
	f. **specific risks to health including mental health**							
	g. **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 spraying insulation to create warm roofs in relation to:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV).							
3.3	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires, spillages, injuries							
	b. emergencies relating to occupational activities							
	c. identification of and reporting of asbestos containing materials.							
3.4	Describe how to report risks and hazards identified by the following:							
	a. risk assessment							
	b. personal assessment							
	c. methods of work							
	d. manufacturers' technical information							
	e. data sheets							
	f. statutory regulations							
	g. official guidance							

h. 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 create warm roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **Select resources associated with own work in relation to materials and components, 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:							
a. insulation							
b. fixings and ancillary items							
c. access boards							
d. fire rated caps							
e. cable protection							
f. all work tools							
g. installation 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 the system designer specification and wastage associated with the method and procedure to spray insulation to create warm roofs.							
5. Minimise the risk of damage to the work and surrounding area when spraying insulation to create warm roofs.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. manufacturers' information							
e. data sheets							
f. statutory regulations							
g. official guidance.							
6. Complete the work within the allocated time when spraying insulation to create warm roofs.							

You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to carry out the work efficiently to spray insulation to create warm roofs to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **Demonstrate the following work skills when spraying insulation to create warm roofs:**							
a. **measuring**							
b. **marking out**							
c. **calculating**							
d. **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:**							
a. **suitable access**							
b. **property suitability**							
c. **structural integrity**							
d. **dampness**							
e. **decay**							
f. **exposure ratings**							
g. **vents and ventilation**							

	h. **services (gas, electric, water, media cables).**							
7.4	**Prepare and install sprayed insulation to create a warm roof in accordance with the specification, design, drawings and method statements to given working instructions.**							
7.5	**Avoid damage to the building, recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:**							
	a. **condition of building fabric**							
	b. **identification of any areas of potential water penetration**							
	c. **condition of roof.**							
7.6	**Create and protect walkways and platforms for access and storage.**							
7.7	**Remove and secure building occupants stored items.**							
7.8	**Identify and install passive ventilation as required by the design and report any identified ventilation limitations.**							
7.9	**Identify and report the potential risk of uninsulated omitted areas in relation to increased condensation following installation relating to roof coverings (pitched and flat) and roof structures (timber, metal, concrete).**							
7.10	**Check for and protect hidden utilities.**							
7.11	**Protect electrical services, lighting, media, high amperage cables.**							
7.12	**Use and maintain all work tools and installation equipment.**							
7.13	**Confirm pre-installation material checks are within specified parameters to include checking and recording batch number and reporting defects.**							
7.14	**Assemble and operate installation processing equipment in line with manufacturers and system manuals.**							
7.15	**Calibrate equipment to measure density, flow and quality tests to ensure they are in line with manufacturers specifications and material requirements.**							
7.16	**Install passive ventilation and safeguard existing ventilation.**							
7.17	**Prepare and fix pipe, tank and cylinder insulation.**							
7.18	**Ensure the insulation is contained within the prescribed areas.**							
7.19	**Ensure insulation around electrical apparatus will not create fire hazards (light fittings, electrical units and cables).**							
7.20	**Install and maintain fire resistant barriers where appropriate.**							

7.21 **Minimise the effects of thermal bridging through compliance with design detail and ensuring a consistent level of insulation of the installed area.**							
7.22 **Clean and disassemble installation processing equipment and pack away for transportation.**							
7.23 **Provide post installation advice and guidance to building occupants to include homeowner packs and data sheets.**							
7.24 **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.**							
7.25 **Use all work tools.**							
7.26 **Work at height using access equipment and harness systems.**							
7.27 **Carry out post installation checks.**							
7.28 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:							
a. 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							
b. how to record and report issues or defects with the materials, components and finishes							
c. why it is important to carry out external and internal pre-installation checks							
d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include but not limited to:							
i suitable access							
ii property suitability							
iii structural integrity							
iv dampness							
v decay							
vi exposure ratings							
vii vents and ventilation							
viii services (gas, electric, water, media cables)							

e.	why it is important to ensure that all necessary repairs are completed prior to installation							
f.	how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:							
	i fire safety							
	ii electrical							
	iii asbestos							
	iv Radon							
	v heritage							
	vi architectural features							
	vii ecology							
	viii ventilation							
g.	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							
h.	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							
i.	why it is important to avoid unintended consequences							
j.	the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:							
	i building warranties							
	ii roof skylights							
	iii loft guarantees							
	iv timber treatment							
k.	recognise the procedures to check flues and combustion air ventilation							
l.	check, record and report issues with construction ventilation, flues, chimneys and combustion air ventilators pre- and post-installation							

m. how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:								
i condition of building fabric								
ii identification of any areas of potential water penetration								
iii condition of roof								
n. how to work with, around and in close proximity to plant and machinery								
o. how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment								
p. why it is important to explain installation procedure to building occupants to include but not limited to the following:								
i scope and work programme								
ii safety requirements during the installation process								
iii protection of property and personal items								
iv specific benefits and implications to include homeowner information								
v agreed standards of making good								
q. how to identify and follow the installation quality requirements								
r. how to create and protect walkways and platforms								
s. how to remove and secure building occupants stored items								
t. how to identify and install passive ventilation as required by the design and report any identified ventilation limitations								
u. how to identify and report the potential risk of uninsulated omitted areas in relation to increased condensation following installation relating to roof coverings (pitched and flat) and roof structures (timber, metal, concrete)								
v. the importance of ensuring all work to services (gas, electric, water, media cables) is carried out by suitably qualified people								
w. how to check for and protect hidden utilities								
x. how to protect electrical services, lighting, media, high amperage cables								
y. how to ensure pre-installation material checks are within specified parameters to include checking and recording batch number and reporting defects								

z. how to assemble and operate installation processing equipment in line with manufacturers and system manuals							
aa. how to calibrate equipment to measure density, flow and quality tests to ensure they are in line with manufacturers specifications and material requirements							
bb. how to prepare and install sprayed insulation to create a warm roof							
cc. how to ensure the insulation is contained within the prescribed areas							
dd. how to ensure insulation around electrical apparatus will not create fire hazards (light fittings, electrical units and cables)							
ee. how to install and maintain fire resistant barriers where appropriate							
ff. why it is important to minimise the effects of thermal bridging through compliance with design detail and ensuring a consistent level of insulation of the installed area							
gg. how to clean and disassemble installation processing equipment and pack away for transportation							
hh. 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							
ii. the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							
jj. 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							
kk. why it is important to provide post installation advice and guidance to building occupants including homeowner packs							
ll. how to handover and sign off to the customers satisfaction							
mm. how to use all work tools and installation equipment in line with manufacturers and system specifications							
nn. how to work at height using access equipment and harness systems							
oo. 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							
pp. how and why maintenance of all work tools and installation equipment is carried out							
7.29 Describe the needs of other occupations and the importance of teamwork and communication when spraying insulation to create warm roofs.							

Unit 275 Spraying insulation to create warm roofs in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 276 Installing external wall insulation in the workplace

Level: **3**

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting the required quantity and quality of resources
- minimising the risk of damage
- completing the work within the allocated time and complying with given contract information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 external wall insulation.							
You must be able to:							
1.1 Interpret and extract relevant information from:	*PER	SO	OQ	WQ	WT	PS	PD
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. suppliers and manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. suppliers and manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings.							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when installing external wall insulation.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. below ground level							
c. confined spaces							
d. at height							

e. tools and equipment							
f. materials and substances							
g. 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:							
a. site							
b. workplace							
c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. material and waste storage							
h. 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 external wall insulation and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder.							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **Demonstrate compliance with, relevant legislation, standards and official guidance when installing external wall insulation in relation to the following:**							

a. **methods of work**							
b. **safe use of health and safety control equipment**							
c. **safe use of access equipment and harness systems**							
d. **safe use, storage and handling of materials, tools and equipment**							
e. **operative maintenance of installation equipment**							
f. **specific risks to health including mental health**							
g. **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 external wall insulation in relation to:							
a. collective protective measures							
b. personal protective equipment (PPE)							
c. respiratory protective equipment (RPE)							
d. local exhaust ventilation (LEV).							
3.3 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
a. fires							
b. spillages							
c. injuries							
d. emergencies relating to occupational activities							
e. identification of and reporting of asbestos containing materials.							
3.4 Describe how to report risks and hazards identified by the following:							
a. risk assessment							
b. personal assessment							
c. methods of work							
d. suppliers and manufacturers' technical information							

e. data sheets							
f. statutory regulations							
g. official guidance							
h. Control of Substances Hazardous to Health (COSHH).							
3.5 **Select resources associated with own work in relation to materials, components and finishes, tools and equipment.**							
4. Select the required quantity and quality of resources for the methods of work to install external wall insulation.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **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.**							
4.2 **Record and report issues or defects.**							
4.3 Describe why the characteristics, compatibility, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be rectified.							
4.4 Describe how the resources should be used and how problems associated with the resources are reported in relation to:							
a. protective sheeting							
b. masking materials							
c. insulation and fixings							
d. warning signs							
e. public protection equipment							
f. renders, reinforcements,							
g. base tracks and fixings							
h. vent sleeves							
i. primers							

	j. adhesives							
	k. fire stops							
	l. expansion and movement joints, compression joints							
	m. pattress's							
	n. corner beads and profiles							
	o. base coats							
	p. seal tapes and joints							
	q. mesh and stress patches							
	r. topcoats and finishes							
	s. sealants							
	t. mechanical fixing components							
	u. pre-formed trims							
	v. tracks and shims							
	w. beads							
	x. joints and cills							
	y. air and vapour control materials							
	z. all work tools and equipment.							
4.5	Describe how to confirm that the resources and materials conform to the specification.							
4.6	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.							
4.7	Describe how to identify the hazards associated with the resources and methods of work and how they are overcome.							
4.8	Describe how to calculate the quantity of materials required as per the system designer specification and wastage associated with the method and procedure to install external wall insulation.							

5. Minimise the risk of damage to the work and surrounding area when installing external wall insulation.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. suppliers and manufacturers' information							
e. data sheets							
f. statutory regulations							
g. official guidance.							
6. Complete the work within the allocated time when installing external wall insulation.							
You must be able to:							
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:							

a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to carry out the work efficiently to install external wall insulation to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **Demonstrate the following work skills when installing external wall insulation:**							
a. **removing**							
b. **measuring**							
c. **marking out**							
d. **cutting**							
e. **line and level**							
f. **drilling**							
g. **fitting**							
h. **fixing**							
i. **filling**							
j. **finishing**							
k. **positioning and securing.**							
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:**							
a. **suitable access**							
b. **property suitability**							
c. **structural integrity**							
d. **dampness**							

	e. **decay**							
	f. **vents and adequate ventilation**							
	g. **services (gas, electric, water, media cables)**							
	h. **architectural features**							
	i. **vegetation**							
	j. **rainwater goods**							
	k. **loose surface finishes**							
	l. **external cracking**							
	m. **water ingress**							
	n. **damp proof course.**							
7.4	**Prepare and install insulated external wall system in accordance with the specification, design, drawings and method statements.**							
7.5	**Cut and fix pre-formed trims and mounting blocks.**							
7.6	**Install pattresses for fixtures and fittings.**							
7.7	**Apply treatments to existing walls.**							
7.8	**Embed mesh and stress patches in accordance with specification.**							
7.9	**Carry out mid-install checks to boarding and basecoat stage.**							
7.10	**Apply mastic aesthetic sealant to all interface, joints and penetrations.**							
7.11	**Install air and vapour control layers.**							
7.12	**Make good any marks and holes following scaffold removal.**							
7.13	**Handover and sign off to the customers satisfaction.**							
7.14	**Carry out post installation checks.**							
7.15	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:							

a.	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							
b.	how to record and report issues or defects with the materials, components and finishes							
c.	why it is important to carry out external and internal pre-installation checks							
d.	how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include but not limited to:							
	i suitable access							
	ii property suitability							
	iii structural integrity							
	iv dampness							
	v decay							
	vi vents and ventilation							
	vii services (gas, electric, water, media cables)							
	viii vegetation							
	ix rainwater goods							
	x loose surface finishes							
	xi external cracking							
	xii water ingress							
	xiii damp proof course							
e.	why it is important to ensure that all necessary repairs are completed prior to installation							
f.	the importance and function of pull-out tests							
g.	how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:							
	i fire safety							
	ii electrical							

iii	media cables							
iv	signal receiving equipment							
v	junction boxes							
vi	asbestos							
vii	Radon							
viii	heritage							
ix	architectural features							
x	ecology							
xi	ventilation							
xii	flues							
h. 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								
i. 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								
j. why it is important to avoid unintended consequences								
k. the effects of weather and the restrictions when applying an external wall system								
l. the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:								
i	wall ties							
ii	windows							
iii	damp proof course							
iv	renders							
v	Tyrolean coatings							
vi	silicone weatherproof coatings							
m. how to protect the adjacent surfaces								

n. how to remove ancillary wall fixtures including but not limited to downpipes, soil pipes, alarm boxes, fences, handrails, as necessary to install the system in accordance with the specification, design, drawings and method statements								
o. how to prepare surfaces by removing existing defective surface finishes, repairing and using appropriate materials to make good the following, including but not limited to holes, loose render, belcasts, painted surfaces, remove existing vegetation and treat								
p. how to apply surface treatments to existing walls								
q. why it is important to identify and report architectural features not addressed on the design								
r. why it is important to provide temporary protective covers to work areas								
s. how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:								
i confirm condition of substrate building fabric								
ii identification of any areas of potential water penetration								
iii visibility and completeness of damp proof course								
iv condition of window and door seals								
v height of internal floors in relation to external floor height								
vi condition of roof								
vii damaged brickwork								
viii drainage and down pipes								
ix protection and existence of sub floor ventilation								
x cavity width and identification of any debris								
xi electrical cables, media cables, junction and meter boxes, signal receiving equipment								
xii flues, gas pipes, chimneys and combustion air ventilators								
xiii identification of protected wildlife (nesting birds, bees, bats)								
t. why it is important to explain installation procedure to building occupants to include but not limited to the following:								
i scope and work programme								

ii	safety requirements during the installation process							
iii	protection of property and personal items							
iv	specific benefits and implications to include homeowner information							
v	agreed standards of making good							
u.	how to work with, around and in close proximity to plant and machinery							
v.	how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
w.	how to identify and follow the installation quality requirements							
x.	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							
y.	how to ensure pre-installation material checks are within specification							
z.	how to prepare and install insulated external wall system in accordance with the system design, specification and details, method statement and the require standard							
aa.	how to cut and fix pre-formed trims and mounting blocks							
bb.	how to cut, line, level, drill and fix tracks, beads, shims, joints, cills							
cc.	how to install pattresses for fixtures and fittings							
dd.	how to apply weather sealing and compressive tapes at interfaces and penetrations							
ee.	how to install insulation to walls with specified fixing pattern using adhesive and mechanical fasteners							
ff.	how to apply base coat to insulation							
gg.	how to embed mesh and stress patches in accordance with specification							
hh.	how to apply second coat and primers							
ii.	how to reinstate ancillary wall fixtures including but not limited to downpipes, alarm boxes, fences, handrails							
jj.	how to apply mastic aesthetic sealant to all interface, joints and penetration							
kk.	how to make good any marks and holes following scaffold removal							
ll.	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							

mm. the importance of ensuring the integrity of air and vapour control layers and breather membranes, following installation and the need to maintain continuity							
nn. 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							
oo. how to handover and sign off to the customers satisfaction and explain maintenance requirements							
pp. why it is important to complete post installation checks in accordance with the system designer installations manual, specifications, water penetration, anchorage and fixing, vents, services (gas, electric, water, media cables)							
qq. why it is important to provide post installation advice and guidance to building occupants and client including homeowner packs							
rr. how to use all work tools and installation equipment in line with manufacturers' and system specifications							
ss. how to work at height using access equipment and harness systems							
tt. how and why operative/technician care maintenance of all work tools and installation equipment is carried out							
7.16 Describe the needs of other occupations and the importance of teamwork and communication when installing external wall insulation.							

Unit 276 Installing external wall insulation in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 277 Park homes insulation

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting the required quantity and quality of resources
- minimising the risk of damage
- completing the work within the allocated time and complying with given contract information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 reviewing the suitability of Park Homes for insulation measures.							
You must be able to:							
1.1 Interpret and extract relevant information from:	*PER	SO	OQ	WQ	WT	PS	PD
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. manufacturers' information							
g. data sheets							
h. surveys							

i. Park Home site rules and restrictions.							
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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. designs							
g. manufacturers' information							
h. data sheets							
i. official guidance							
j. current legislation and regulations governing Park Homes							
k. Park Home site rules.							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when reviewing the suitability of Park Homes for insulation measures.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. below suspended structures							

	c. confined spaces							
	d. at height							
	e. tools and equipment							
	f. materials and substances							
	g. movement and storage of materials by manual handling and mechanical lifting							
	h. vehicles.							
2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to:							
	a. site							
	b. workplace							
	c. siting and location of vehicles							
	d. company							
	e. customer							
	f. access equipment							
	g. material and waste storage							
	h. park personnel, visitors and other park residents.							
2.3	Explain the accident reporting procedures and who is responsible for making reports.							
2.4	Describe the types of fire extinguishers available when reviewing the suitability of Park Homes for insulation measures and describe how and when they are used in relation to:							
	a. water							
	b. CO2							
	c. foam							
	d. powder.							

3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **Demonstrate compliance with relevant legislation, standards and official guidance when reviewing the suitability of Park Homes for insulation measures in relation to the following:**							
a. **methods of work**							
b. **safe use of health and safety control equipment**							
c. **safe use of access equipment**							
d. **safe use, storage and handling of materials, tools and equipment**							
e. **operative maintenance of installation equipment**							
f. **specific risks to health including mental health**							
g. **specific risks associated with ventilation (roof space, inside the property, working below suspended supported floor structure) and also including combustion appliances.**							
3.2 Explain why, when and how health and safety control equipment, identified by the principles of prevention, should be used when reviewing the suitability of Park Homes for insulation measures in relation to:							
a. collective protective measures							
b. personal protective equipment (PPE)							
c. respiratory protective equipment (RPE)							
d. local exhaust ventilation (LEV).							
3.3 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
a. fires							
b. spillages							
c. injuries							
d. emergencies relating to occupational activities including but not limited to the following:							
e. partial or full collapse of suspension system							
f. electrical cabling							

g. Radon, methane, LPG or other gases							
h. identification of and reporting of asbestos containing materials.							
3.4 Describe how to report risks and hazards identified by the following:							
a. risk assessment							
b. personal assessment							
c. methods of work							
d. manufacturers' technical information							
e. data sheets							
f. statutory regulations							
g. official guidance							
h. Control of Substances Hazardous to Health (COSHH)							
i. Park Home site rules.							
4. Select the required quantity and quality of resources as per the designs for the methods of work when reviewing the suitability of Park Homes for insulation measures.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. protective sheeting							

b. warning signs							
c. public protection equipment							
d. calibration 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 carry out remediation and preparatory work.							
5. Minimise the risk of damage to the work and surrounding area when reviewing the suitability of Park Homes for insulation measures.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
5.1 **Protect the work and its surrounding internal and external 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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							

d. manufacturers' information							
e. data sheets							
f. statutory regulations							
g. official guidance							
h. Park Home site rules.							
6. Complete the work within the allocated time when reviewing the suitability of Park Homes for insulation measures.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to carry out the work efficiently when reviewing the suitability of Park Homes for insulation measures to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **Demonstrate work skills to carry out external and internal pre-installation checks, to cover the following:**							
a. **moisture content of frame at all corners**							
b. **integrity of Park Home fabric and suspension system**							
c. **any signs of board warping, bubbling, dry rot**							
d. **the distance between Park Homes will meet fire regulations following installation**							
e. **gas pipes, bottles and electrical cables are secure and safe**							

	f. **insect infestation, vermin, animals and protected species.**							
7.2	**Demonstrate work skills to carry out the following:**							
	a. **measuring**							
	b. **marking out**							
	c. **calibrating**							
	d. **completing remedial and preparatory work.**							
7.3	**Use and maintain all work tools.**							
7.4	**Carry out post installation checks.**							
7.5	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:							
	a. 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							
	b. how to record and report issues or defects with the materials, components and finishes							
	c. why it is important to carry out external and internal pre-installation checks							
	d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include but not limited to:							
	i Park Home site approvals							
	ii suitable access							
	iii property suitability							
	iv structural integrity							
	v dampness							
	vi decay							
	vii vents and ventilation							
	viii suitable minimum Park Home spacing following proposed installation							

ix	services (gas, electric, water, media cables, overhead cables, insect and vermin infestation, animals and protected species)							
e. why it is important to ensure that all necessary repairs are completed prior to installation								
f. how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:								
i	condition of building fabric							
ii	identification of any areas of potential water penetration							
iii	mould or evidence of condensation							
iv	moisture content of the timber frame and dry rot							
v	condition of windows and doors							
vi	lack of permission from site owner							
vii	condition of roof							
viii	space between park homes would be less than 6m following installation							
ix	drainage and down pipes							
x	poor condition of suspension system							
g. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:								
i	fire safety							
ii	electrical							
iii	asbestos							
iv	Radon							
v	ecology							
vi	architectural features							
vii	ventilation							
viii	combustion ventilation							
ix	gas							

h. 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								
i. why it is important to avoid unintended consequences								
j. 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								
k. the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity								
l. why it is important to explain installation procedure to building occupants to include but not limited to the following:								
i scope and work programme								
ii safety requirements during the installation process								
iii protection of property and personal items								
iv specific benefits and implications to include homeowner information								
v agreed standards of making good								
m. the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:								
i the Park Home								
ii windows and doors								
iii renders								
iv previous damp treatments								
n. how to work with, around and in close proximity to plant and machinery								
o. how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment								
p. how to identify and follow the installation quality requirements								
q. how and why it is important to check, record and report issues with combustion ventilation, flues, chimneys and combustion air ventilators pre, during and post installation								
r. how to identify routing of internal services, using relevant detectors								

	s. 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							
	t. why it is important to complete post installation checks in accordance with the designs and operations manual and report issues to include, but not limited to, safeguarding the combustion ventilation, services and report defects							
	u. why it is important to provide post installation advice and guidance to building occupants including homeowner packs							
	v. how to handover and sign off to the customers satisfaction							
	w. how to use all work tools and equipment							
	x. how to work at height using access equipment							
	y. how and why maintenance of all work tools and equipment is carried out							
7.6	Describe the needs of other occupations and the importance of teamwork and communication when reviewing the suitability of Park Homes for insulation measures.							

Unit 277 Park homes insulation

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 278 Applying surface finishes to external wall insulation in the workplace

Level: 3

Unit aim:

The aim of this unit is to provide you with an awareness of:

- interpreting information
- adopting safe and healthy working practices
- selecting the required quantity and quality of resources
- minimising the risk of damage
- completing the work within the allocated time and complying with given contract information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

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 applying surface finishes to external wall insulation.							
You must be able to:							
1.1 Interpret and extract relevant information from:	*PER	SO	OQ	WQ	WT	PS	PD
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. suppliers and manufacturers' information							
g. 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:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. design							
g. standards							
h. suppliers and manufacturers' information							
i. data sheets							
j. official guidance							
k. current legislation and regulations governing buildings.							
2. Know how to comply with environmentally responsible work practices to meet current, legislation standards and official guidance when applying surface finishes to external wall insulation.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment in relation to:							
a. the workplace							
b. below ground level							
c. confined spaces							
d. at height							

e. tools and equipment							
f. materials and substances							
g. 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:							
a. site							
b. workplace							
c. siting and location of vehicles							
d. company							
e. customer							
f. access equipment							
g. materials and waste storage							
h. 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 external wall insulation and describe how and when they are used in relation to:							
a. water							
b. CO2							
c. foam							
d. powder.							
3. Comply with current, relevant legislation, standards and official guidance to carry out your work and maintain safe and healthy work practices when applying surface finishes to external wall insulation.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **Demonstrate compliance with, relevant legislation, standards and official guidance when applying surface finishes to external wall insulation in relation to the following:**							

	a. **methods of work**							
	b. **safe use of health and safety control equipment**							
	c. **safe use of access equipment and harness systems**							
	d. **safe use, storage and handling of materials, tools and equipment**							
	e. **operative maintenance of installation equipment**							
	f. **specific risks to health including mental health**							
	g. **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 applying surface finishes to external wall insulation, in relation to:							
	a. collective protective measures							
	b. personal protective equipment (PPE)							
	c. respiratory protective equipment (RPE)							
	d. local exhaust ventilation (LEV).							
3.3	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to:							
	a. fires							
	b. spillages							
	c. injuries							
	d. emergencies relating to occupational activities							
	e. identification of and reporting of asbestos containing materials.							
3.4	Describe how to report risks and hazards identified by the following:							
	a. risk assessment							
	b. personal assessment							
	c. methods of work							
	d. suppliers and manufacturers' technical information							

e. data sheets							
f. statutory regulations							
g. official guidance							
h. Control of Substances Hazardous to Health (COSHH).							
4. Select the required quantity and quality of resources for the methods of work to apply surface finishes to external wall insulation.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. primers							
b. paints							
c. beads and trims							
d. reinforcement							
e. stress patches							
f. renders							
g. mesh							
h. sealants and sealant tapes and strips							
i. fixing and fittings							

j. all work tools							
k. installation 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 length, area and wastage associated with the method and procedure to apply surface finishes to external wall insulation.							
5. Minimise the risk of damage to the work and surrounding area when applying surface finishes to external wall insulation.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. current legislation							
b. environmental responsibilities							
c. organisational procedures							
d. suppliers and manufactures' information							

e. data sheets							
f. statutory regulations							
g. official guidance.							
6. Complete the work within the allocated time when applying surface finishes to external wall insulation.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
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:							
a. types of progress charts, timetables and estimated times							
b. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to carry out the work efficiently when applying surface finishes to external wall insulation to the required specification.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
7.1 **Demonstrate the following work skills when applying surface finishes to external wall insulation:**							
a. **measuring**							
b. **marking out**							
c. **mixing**							
d. **applying**							
e. **making good including any defects.**							
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:**							

	a. **suitable access**							
	b. **property suitability**							
	c. **structural integrity**							
	d. **architectural features**							
	e. **vegetation**							
	f. **rainwater goods**							
	g. **cracking**							
	h. **position of damp proof course**							
	i. **dampness**							
	j. **decay**							
	k. **vents and ventilation**							
	l. **services (gas, electric, water, media cables).**							
7.4	**Apply base coats, reinforcing mesh and stress patches in accordance with the design.**							
7.5	**Apply corner and surface beads and trims.**							
7.6	**Apply sealant tapes, strips and mastics.**							
7.7	**Prepare and apply external wall insulation (EWI) surface finishes to given system designer specification, method statement and the required standard for at least three of the following:**							
	a. **dash finishes**							
	b. **synthetic or non-synthetic renders**							
	c. **proprietary pre-cast finishes**							
	d. **paint finishes**							
	e. **brick slips**							
	f. **brick effect render**							
7.8	**Fit weather seals.**							
7.9	**Carry out post installation repairs.**							

7.10	**Handover and sign off to the customers satisfaction.**							
7.11	**Carry out post installation checks.**							
7.12	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:							
	a. 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							
	b. how to record and report issues or defects with the materials, components and finishes							
	c. why it is important to carry out external and internal pre-installation checks							
	d. how to carry out external and internal pre-installation checks, assessing, recording and reporting issues to include:							
	i suitable access							
	ii property suitability							
	iii structural integrity							
	iv dampness							
	v decay							
	vi vents and ventilation							
	vii vegetation							
	viii services (gas, electric, water, media cables)							
	ix architectural features							
	x rainwater goods							
	xi cracking							
	xii position of damp proof course							
	e. why it is important to ensure that all necessary repairs are completed prior to installation							
	f. the weather restrictions for each external wall system finish							

g. 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								
h. why it is important to Identify and report potential thermal bridging								
i. how to recognise, record and report the key issues that may inhibit commencement of the work including but not limited to:								
i condition of building fabric								
- *identification of any areas of potential water penetration*								
ii visibility and completeness of damp proof course								
iii condition of window and door seals								
iv damaged or spalled brickwork								
v drainage and down pipes								
vi protection and existence of sub floor ventilation								
- *electrical cables, media cables, junction and meter boxes*								
vii signal receiving equipment								
- *flues, gas pipes, chimneys and combustion air ventilators*								
- *identification of protected wildlife (nesting birds, bees, bats)*								
j. how to identify when specialist skills and knowledge are required and report accordingly including but not limited to:								
i fire safety								
ii electrical								
iii media cables								
iv signal receiving equipment								
v junction boxes								
vi asbestos								
vii Radon								
viii heritage								

ix	ecology							
x	ventilation							
xi	flues							
k.	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							
l.	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							
m.	why it is important to avoid unintended consequences							
n.	why it is important to explain installation procedure to building occupants to include but not limited to the following:							
o.	scope and work programme							
p.	safety requirements during the installation process							
q.	protection of property and personal items							
r.	specific benefits and implications to include homeowner information							
s.	agreed standards of making good							
t.	the implications of existing guarantees and warranties that may be compromised by the installation to include but not limited to:							
i	windows & doors							
ii	damp proof course							
iii	renders							
iv	Tyrolean coatings							
v	silicone weatherproof coatings							
u.	how to work with, around and in close proximity to plant and machinery							
v.	how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment							
w.	how to identify and follow the installation quality requirements							

x. how to ensure pre-installation material checks are within specified parameters and reporting defects							
y. how to fix corner surface beads and trims							
z. how to apply base and primer coats, reinforcing mesh and stress patches							
aa. how to fit weather seals at interfaces, window and door reveals and at system penetrations in accordance with design details							
bb. how to apply dash finishes, synthetic and non-synthetic renders, proprietary pre-cast finishes, paint finishes, brick slips and brick effect render to external wall insulation system including door and window reveals							
cc. how to reinstate fixtures and fittings and seal							
dd. 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							
ee. the importance of ensuring the integrity of air and vapour control layers and breather membranes following installation and the need to maintain continuity							
ff. why it is important to complete post installation checks: compliance with specifications, resistance to water penetration, anchorage, and fixing, vents, services (gas, electric, water, media cables)							
gg. how to carry out any repairs after installation							
hh. 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							
ii. why it is important to complete post installation checks in accordance with system designer installations operations manual and report issues							
jj. why it is important to provide post installation advice and guidance to building occupants and client including homeowner packs							
kk. how to handover and sign off to the customers satisfaction							
ll. how to use all work tools and installation equipment							
mm. how to work at height using access equipment and harness systems							
nn. how and why maintenance of all work tools and installation equipment is carried out							
7.13 Describe the needs of other occupations and the importance of teamwork and communication when applying surface finishes to external wall insulation.							

Unit 278 Applying surface finishes to external wall insulation in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 300 Confirming work activities and resources for an occupational work area in the workplace

Level: 3

Unit aim:

To provide you with the necessary skills and knowledge to:

- interpret information
- identify work activities
- evaluate work activities and resources
- identify reasons for changes to planned work activities.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony
PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

1. Identify work activities, assess required resources and plan the sequence of work.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 identify work activities, assess required resources and plan the sequence of work							
1.2 identify work activities and formulate a plan for your own sequence of work							
1.3 explain the types of work relative to the occupational area and how to identify different work activities							
1.4 explain methods of assessing the resources needed from a range of available information							
1.5 explain the required information and the different methods used to prepare a work programme relative to the occupational area.							

2. Obtain clarification and advice where the resources required are not available.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 **seek advice and clarity from appropriate sources on resources available and the alternatives that can be used for the work when required resources are not available.**							
2.2 explain the different sources and methods that can be used to obtain clarification and advice when the required resources are not available.							

3. Evaluate the work activities and the requirements of any significant external factors against the project requirements.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **assess progress of work against project requirements, taking into account external factors relating to:**							
a. **other occupations and /or customers**							
b. **resources**							
c. **weather conditions**							
d. **health and safety requirements**							
3.2 explain different methods of evaluating work activities against the following project requirements:							
a. contract conditions							
b. contract programme							
c. health and safety requirements of operatives							
3.3 **evaluate the requirements of significant external factors that could affect the progress of work, in relation to:**							
a. **other related programmes**							
b. **special working conditions**							
c. **weather conditions**							
d. **other occupations/people**							
e. **resources**							
f. **health and safety requirements.**							

4. Identify work activities which influence each other and make the best use of the resources available.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **determine work activities that have an influence on each other**							
4.2 **evaluate which work activities make the best use of available resources in relation to:**							
a. **occupations and/or customers associated with the work**							
b. **tools, plant and/or ancillary equipment**							
c. **materials and components**							
4.3 explain different methods and sources that can identify which work activities influence each other							
4.4 describe how to determine the sequence of work activities and how long each work activity will take							
4.5 describe what zero and low carbon requirements are							
4.6 explain how work activities and different ways of using resources can impact on zero and low carbon requirements and make a positive contribution to the environment.							

5. Identify changed circumstances that require alterations to the work programme and justify them to decision makers.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
5.1 **evaluate project progress against the work programme to identify any changed circumstances**							
5.2 **inform line management and/or customers on the type and extent of any required changes to the work programme**							
5.3 explain how to identify possible alterations to the work programme to meet changed circumstances relating to:							
a. action lists							
b. method statements							
c. duration							
d. schedules and/or occupation specific requirements							
5.4 explain how to assess contractual/work effects resulting from alterations to the work programme							

5.5	explain the methods used to justify to decision makers on the effects resulting from alterations to the work programme.							

Unit 300 Confirming work activities and resources for an occupational work area in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 303 Confirming the occupational method of work in the workplace

Level: 3

Unit aim:

To provide you with the necessary skills and knowledge for:

- assessing project data to determine occupational work methods
- adopting safe and healthy working practices
- selecting the methods of work
- confirming the methods of work to the relevant people associated with the occupation
- sourcing additional information.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony
PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

1. Assess available project data accurately to determine the occupational method of work.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 **interpret and extract information from:**							
a. drawings							
b. specifications							
c. schedules							
d. manufacturers' information							
e. methods of work							
f. risk assessments							
g. programmes of work							
1.2 explain how to summarise the following project data:							
a. required quantities							
a. specifications							

b. detailed drawings							
c. health and safety requirements							
d. timescales							
e. scope of works							
1.3 explain the different methods of assessing available project data.							
1.4 explain how to use project data to interpret the work method, in relation to:							
b. standard work procedures							
a. sequence of work							
b. organisation of resources (people, equipment, materials)							
c. work techniques							
d. working conditions (health, safety and welfare)							
e. risk assessment.							

2. Obtain additional information from alternative sources in cases where the available project data is insufficient.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 **collect and collate additional information from alternative sources to clarify the work to be carried out**							
2.2 explain different methods and techniques of obtaining additional information from the following alternative sources when available project data is insufficient:							
a. customers or representatives							
b. suppliers							
c. regulatory authorities							
d. manufacturers' literature.							

3. Identify work methods that will make best use of resources and meet project, statutory and contractual requirements.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD

3.1	**examine potential work methods to carry out the occupational work activity**							
3.2	**determine which work methods will make best use of relevant resources and meet health and safety requirements relating to technical and/or project criteria**							
3.3	explain how to identify work methods that make best use of resources and meet project, statutory and contractual requirements against technical criteria, in relation to:							
	a. health and safety welfare (principles of protection)							
	b. fire protection							
	c. access and egress							
	d. equipment availability							
	e. availability of competent workforce							
	f. pollution risk							
	g. waste and disposal							
	h. zero and low carbon outcomes							
	i. weather conditions							
3.4	explain how to identify work methods that make best use of resources and meet project, statutory and contractual requirements against project criteria, in relation to:							
	a. conforming to statutory requirements							
	b. customer and user needs							
	c. contract requirements in terms of time, quantity and quality							
	d. environmental considerations							
3.5	explain how different methods of work can achieve zero/low carbon outcomes.							

4. Confirm and communicate the selected work method to relevant personnel.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **confirm the selected occupational work method that meets project, statutory and contractual requirements**							

4.2	**communicate appropriately to relevant people on the selected occupational work method**							
4.3	describe the different techniques and methods of confirming and communicating work methods to relevant people							
4.4	explain the principles of equality and diversity and how to apply them when working and communicating with others.							

Unit 303 Confirming the occupational method of work in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Unit 502 Developing and maintaining good occupational working relationships in the workplace

Level: 3

Unit aim:

To provide you with the necessary skills and knowledge for:

- interpreting information
- adopting safe and healthy working practices
- working with, informing and supporting people
- developing and maintaining good occupational working relationships.

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony
PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

1. Develop, maintain and encourage working relationships to promote good will and trust.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 **give appropriate advice and information to relevant people about the occupational work activities and/or associated occupations involved**							
1.2 **apply the principles of equality and diversity by considering the needs of individuals when working and communicating with others**							
1.3 explain the methods and techniques used and personal attributes required to encourage and maintain working relationships that promote goodwill and trust with relevant people							
1.4 explain the principles of equality and diversity and how to apply them when working and communicating with others.							
2. Inform relevant people about work activities in an appropriate level of detail, with the appropriate level of urgency.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 communicate on the following work activity information to relevant people following organisational procedures:							

a. appropriate timescales							
b. health and safety requirements							
c. co-ordination of work procedures							
2.2 explain the different methods and techniques used to inform relevant people about work activities							
2.3 explain the effects of not informing relevant people with the expected level of urgency							
2.4 explain the different types of work activity related information and to what level of detail the following people would expect to receive:							
a. colleagues							
b. employers							
c. customers							
d. contractors							
e. suppliers of products and services							
f. other people affected by the work/project.							

3. Offer advice and help to relevant people about work activities and encourage questions/requests for clarification and comments.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 give appropriate advice and information to relevant people about the different methods of carrying out occupational work activities to achieve the required outcome							
3.2 explain the techniques of encouraging questions and/or requests for clarification and comments							
3.3 explain the different ways of offering advice and help to different people about work activities, in relation to:							
a. progress							
b. results							
c. achievements							
d. occupational problems							
e. occupational opportunities							

f. health and safety requirements							
g. coordinated work.							

4. Clarify proposals with relevant people and discuss alternative suggestions.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **engage regular discussions with relevant people about the occupational work activity and/or other occupations involved**							
4.2 explain the methods of clarifying alternative proposals with relevant people							
4.3 explain the methods of suggesting alternative proposals.							

5. Resolve differences of opinion in ways that minimise offence and maintain goodwill, trust and respect.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
5.1 **examine and agree the work activities that satisfy all people involved and will meet the required outcome of the proposed method of work**							
5.2 explain the methods and techniques used to resolve differences of opinion in ways which minimise offence and maintain goodwill, trust and respect.							

Unit 502 Developing and maintaining good occupational working relationships in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	

Appendix 1 Summary of City & Guilds assessment policies

Health and Safety

All centres have to make sure that they provide a safe and healthy environment for learning, including induction and assessment. City & Guilds external verifiers check this when they visit assessment centres.

Equal Opportunities

Your centre will have an equal opportunities policy. Your centre will explain this to you during your induction, and may give you a copy of the policy.

City & Guilds equal opportunities policy is available from our website **www.cityandguilds.com**, City & Guilds Customer Relations Team or your centre.

Access to assessment

City & Guilds qualifications are open to all candidates. Some candidates may need extra help with their assessment, for example, a person with a visual impairment may need a reader.

If you think you will need alternative assessment arrangements, you should discuss this with your centre during your induction, and record this on your assessment plan. City & Guilds will allow centres to make alternative arrangements for you if you are eligible and if the qualification allows for this. This must be agreed before you start your qualification.

City & Guilds guidance and regulations document *Access to assessment and qualifications* is available on the City & Guilds website **www.cityandguilds.com**, from the City & Guilds Customer Relations Team or your centre.

Complaints and appeals

Centres must have a policy and procedure to deal with any complaints you may have. You may feel you have not been assessed fairly, or may want to appeal against an assessment decision if you do not agree with your assessor.

These procedures will be explained during induction and you will be provided with information about the Quality Assurance Co-ordinator within your centre who is responsible for this.

Most complaints and appeals can be resolved within the centre, but if you follow the centre procedure and are still not satisfied you can complain to City & Guilds.

Our complaints policy is on our website **www.cityandguilds.com** or is available from the City & Guilds Customer Relations Team or your centre.

Useful contacts

UK learners General qualification information	E: **learnersupport@cityandguilds.com**
International learners General qualification information	E: **intcg@cityandguilds.com**
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	E: **centresupport@cityandguilds.com**
Single subject qualifications Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	E: **singlesubjects@cityandguilds.com**
International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	E: **intops@cityandguilds.com**
Walled Garden Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	E: **walledgarden@cityandguilds.com**
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	E: **business@cityandguilds.com**
Publications Logbooks, Centre documents, Forms, Free literature	

About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group operates from three major hubs: London (servicing Europe, the Caribbean and Americas), Johannesburg (servicing Africa), and Singapore (servicing Asia, Australia and New Zealand). The Group also includes ILM (management and leadership qualifications), City & Guilds Licence to Practice (land-based qualifications), the Centre for Skills Development (CSD works to improve the policy and practice of vocational education and training worldwide) and Learning Assistant (an online e-portfolio).

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