

End-point assessment plan for Roofer apprenticeship standard

Apprenticeship standard reference number	Apprenticeship standard level	Integrated approach
ST0270	2	N/A

Contents

Introduction and overview	2
EPA summary table	3
Length of end-point assessment period:	3
Order of assessment methods	3
Gateway	4
Assessment Methods	6
Reasonable adjustments	12
Weighting of assessment methods	12
Grading	12
Re-sits and retakes	13
Roles and responsibilities	13
Internal Quality Assurance (IQA)	14
Affordability	15
Mapping of Knowledge Skills and Behaviours	16
Grading descriptors.....	19

Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the Roofer apprenticeship standard. It is for end-point assessment organisations (EPAOs) who need to know how EPA for this apprenticeship must operate. It will also be of interest to Roofer apprentices, their employers and training providers.

Full time apprentices will typically spend 18 months on-programme (before the gateway) working towards the occupational standard. All apprentices must spend a minimum of 12 months on-programme. All apprentices must complete the required amount of off-the-job training specified by the apprenticeship funding rules.

The EPA period should only start and the EPA be arranged, once all of the pre-requisite gateway requirements for EPA have been met and they can be evidenced and are available to an EPAO. The employer must be satisfied that the apprentice is consistently working at or above the level set out in the occupational standard. Apprentices must have compiled a portfolio of evidence, which underpins the EPA interview.

The EPA must be completed within an EPA period typically lasting three-months, beginning when the apprentice has met the EPA gateway requirements.

EPA must be conducted by an organisation approved to offer services against this occupational standard, as selected by the employer, from the Education and Skills Funding Agency's Register of End-Point Assessment Organisations (RoEPAO).

The EPA consists of three assessment methods. The individual assessment methods will have the following grades:

Assessment method 1 – Knowledge test

- fail
- pass
- distinction

Assessment method 2 – Observation with questioning

- fail
- pass

Assessment method 3 – Interview, underpinned by a portfolio of evidence

- fail
- pass
- distinction

Performance in the EPA will determine the overall apprenticeship grade of:

- fail
- pass
- distinction

EPA summary table

On-programme (typically 18 months)	<p>Training to develop the occupation standard's knowledge, skills and behaviours</p> <p>The apprentice must complete training towards English and maths qualifications in line with the apprenticeship funding rules.</p>
End-point assessment gateway	<p>Employer is satisfied the apprentice is consistently working at, or above, the level of the occupational standard</p> <p>The apprentice must have achieved English and maths qualifications in line with the apprenticeship funding rules.</p> <p>A portfolio of evidence compiled by the apprentice on-programme, to underpin the EPA interview</p>
End-point assessment (typically 3-months)	<p>Assessment method 1: Knowledge test; graded fail, pass, distinction</p> <p>Assessment method 2: Observation with questioning; graded fail, pass.</p> <p>Assessment method 3: Interview, underpinned by portfolio of evidence; graded fail, pass, distinction</p> <p>Overall EPA and apprenticeship graded</p> <ul style="list-style-type: none"> • fail • pass • distinction

Length of end-point assessment period

The EPA (including all assessment methods) must typically be completed within three-months of the apprentice meeting the gateway requirements.

Order of assessment methods

The knowledge test must be taken first as it contains critical health and safety questions which must be passed before an apprentice is allowed to work independently on site. At least a pass must be achieved before the apprentice can move onto the other methods. The result of the knowledge test must therefore be known before an apprentice starts the next method.

The remaining assessment methods can be taken in any order.

Gateway

The EPA period should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, that is to say they are deemed to have achieved occupational competence. In making this decision, the employer may take advice from the apprentice's training provider(s), but the decision must ultimately be made solely by the employer. In addition, an apprentice must have completed the following gateway requirements prior to beginning EPA:

- achieved English and maths qualifications in line with the apprenticeship funding rules
- for the interview, the apprentice must have completed and submitted a portfolio of evidence – see requirements below:

Portfolio of evidence requirements:

- apprentices must compile a portfolio of evidence during the on-programme period of the apprenticeship
- it must contain sufficient evidence to demonstrate and support assimilation of the Knowledge, Skills and Behaviours (KSBs) that will be assessed by the interview. The portfolio will typically include a minimum of 6 pieces of evidence and a maximum of 12 pieces of evidence.
- it must contain valid evidence from various tasks and assignments e.g. different roof structures, sizes, construction types, locations and roof area covered.
- each item of evidence must be mapped against the KSBs by a cross reference sheet
- evidence may be used to demonstrate more than one KSB
- evidence sources may include:
 - workplace documentation, for example job cards, job sheets, check sheets, quality check records, equipment check sheets, maintenance records, resource requisition sheets
 - annotated specifications, for example drawings, cutting lists, work instructions, annotated photographs
 - video clips with explanation (live voice feed from the apprentice), of activities (maximum duration in total 10-minutes). The apprentice must be in view while activities are recorded

This is not a definitive list, other evidence sources are allowable.

- it should not include any methods of self-assessment and/or reflection
- any employer contributions should focus on direct observation of evidence (for example witness statements) of competence related to the KSBs in the standard rather than opinions
- the evidence provided must be valid and attributable to the apprentice, referenced to the standard; the portfolio of evidence must contain a statement from the employer confirming this
- the portfolio of evidence must be submitted to the EPAO at the gateway.

Simulated environments

Capturing evidence in simulated environments is about helping ensure that there is fair opportunity for apprentices to gather evidence for the interview underpinned by a portfolio of evidence in exceptional circumstances.

Simulated environments may only be used where apprentices are prevented from capturing evidence in the workplace. Typical causes are:

- hazards, dangerous occurrences or emergency scenarios that require controlled conditions
- a difficulty distinguishing individual performance in team situations
- suitable opportunities for performance occur infrequently, rarely, or not at all, for example a response to faults, problems, incidents, accidents
- confidentiality of third parties will be compromised, for example in some health care settings
- there are organisational constraints, for example the employer is unable to undertake relevant work due to emerging external factors outside of their control. In the first instance the employer should make every effort to access an alternative workplace environment for their apprentice

Simulated environments must:

- afford the apprentice the opportunity to capture sufficient evidence to underpin the grading descriptors for the specific knowledge, skill or behaviour being targeted
- have a scenario and specification of defined tasks for the apprentice to complete (or an equivalent structure or format)
- replicate normal working conditions and the naturally occurring activities the apprentice would have likely undertaken in the workplace, as far as practicable (including time pressures, considerations, resources, materials, tools, information, interactions, communication media, lighting, noise and hazards they would reasonably encounter in employer or customer premises)
- allow each apprentice to demonstrate their competence on an individual basis
- employers must confirm the exceptional circumstances for any evidence collected in a simulated environment and verify that it is authentic, reflects the apprentice's usual work and is

fully transferable to the workplace

Part KSBs in scope of simulation for this apprenticeship and assessment method are:

- S15 Part ‘Install insulation products for warm and cold roof construction’
- S11 Part ‘Install plain tiles, interlocking tiles and natural slates’ two of the three installation requirements may be provided via simulated evidence in extreme circumstances. Evidence for at least one of the three installation requirements must be provided from the workplace

Assessment methods

Assessment method 1: Knowledge test

Overview

This assessment method has one component: Knowledge test.

The rationale for this assessment method is:

- it will determine knowledge of critical health and safety requirements
- it allows for the efficient testing of knowledge where there is a right or wrong answer
- it does not require independent assessor time, reducing cost.

Delivery

Apprentices must be assessed against the knowledge assigned to this assessment method – as shown in the mapping of the KSBs.

The test can be:

- computer based
- paper based.

It will consist of 45 multiple choice questions, of which 5 must be scenario based. All questions will have one correct answer from four response choices.

Each question answered correctly will be awarded one mark apart from the scenario questions which will be awarded 2 marks. Any incorrect or missing answers will be assigned zero marks.

Apprentices must have 90 minutes to complete the test.

The test is closed book, which means that the apprentice cannot refer to reference books or materials.

The test must be taken in the presence of an invigilator. The invigilator may be the independent assessor or another external person employed by the EPAO or specialised (proctor) software, if the test can be taken on-line. The EPAO is required to have an invigilation policy that will set out how the test is to be carried out. This will include specifying the most appropriate ratio of apprentices to invigilators to best take into account the setting and security required in administering the test.

Tests must be marked by independent assessors or markers employed by the EPAO following a marking guide produced by the EPAO, marking by computer is permissible where the test has been taken online.

When developing questions for the test, the EPAO should consider the level of English that the apprentice is working at and pitch questions using appropriate language to ensure inclusivity. Apprentices are expected to understand relevant occupational language.

The EPAO must verify the suitability of the venue for taking the test and the identity of the apprentice taking the test.

EPAOs must ensure that apprentices have a different set of questions in the case of re-sits and/or retakes.

Marking

The following grade boundaries apply to the test:

Grade	Minimum score	Maximum score
Distinction	41	50
Pass	26	40
Fail	0	25

Venue

Apprentices must take the test in a suitably controlled environment that is a quiet space, free of distractions and influence.

The test can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO, for example a training provider's premises.

Supporting material

EPAOs must produce the following material to support this method:

- a test specification
- sample tests and mark schemes
- live tests and mark schemes
- analysis reports which show areas of weakness for completed tests
- an invigilation policy

- EPAOs must develop ‘question banks’ of sufficient size to prevent predictability and review them regularly (at least once a year) to ensure they, and the questions they contain, are fit for purpose.
- It is recommended that questions are developed in consultation with representative employers of this occupation. EPAOs must maintain the security and confidentiality of their questions when consulting employers.

Assessment method 2: Observation with questioning

Overview

This assessment method has two components: Observation and Questioning.

The rationale for this assessment method is:

- this is a practical role, best demonstrated through observation
- observation allows the assessment of work tasks in the apprentice’s normal place of work, using tools and equipment with which they are familiar, which is likely to enable the apprentice to perform at their best
- observation is a cost effective assessment method, as it makes use of the employers premises and resources
- the tasks chosen reflect something that would be completed by a Roofer in every company on a daily basis; tasks not necessarily completed on a daily basis or not best suited to direct observation are assessed via the other assessment methods
- the questioning component enables confirmation of underpinning knowledge and behaviours.

Delivery

Apprentices must be observed by an independent assessor completing work in their normal workplace, in which they will be assessed against the KSBs assigned to this assessment method.

EPAOs must arrange for the observation to take place in consultation with the employer.

An independent assessor must only observe a maximum of up to three apprentices at any one time, independent assessors must ensure apprentices are in line of sight to allow for quality and rigour. The independent assessor must be unobtrusive whilst conducting the observation.

The observation should take ten hours +10% at the independent assessor’s discretion. The observation may be split into discrete sections held over a maximum of two working days. The length of a working day is typically considered to be 7.5 hours. There may be breaks during the observation to allow the apprentice to move from one location to another as required.

In advance of the observation, apprentices must be provided with information on the format of the observation, including timescales.

The independent assessor should consider the level of English that the apprentice is working at and pitch questions using appropriate language to ensure inclusivity. Apprentices are expected to understand and use relevant occupational language.

The following activities must be observed during the observation:

CORE

- consideration of safety
- the formulation of an individual task plan
- the selection of materials and components
- manual handling of resources and materials
- interpretation of verbal and written work instructions
- working safely at height and the use of access equipment

Option 1: Roof Slater and Tiler

- measure, mark out, fit, finish, position and secure slates or tiles
- lay underlay, battens and related roofing components

Option 2: Waterproof Membrane Installer

- measure, mark out, fit, finish, position and secure a waterproof system
- terminate waterproofing systems at the perimeter upstands and/or open edges to the given specification

Option 3: Roof Sheeter and Cladder

- measure, mark out, fit, finish, position and secure cladding
- work around penetrations and upstands

The activities must require the apprentice to select and use a range of materials, equipment and tools.

Observation specifications prepared by the EPAO must be of equal complexity, so as to require a competent person ten hours to complete.

Questions must be asked during the observation when breaks occur in the work cycle on a one-to-one basis. The independent assessor is responsible for ensuring the security of questions and that they are not overheard by other apprentices. The independent assessor is permitted to ask follow up questions where clarification is required. The independent assessor can ask each apprentice up to 6 questions. The main purpose of the questioning is to assess underpinning knowledge. The independent assessor should consider the level of English that the apprentice is working at and pitch questions using appropriate language to ensure inclusivity. Apprentices are expected to understand and use relevant occupational language. The independent assessor has the discretion to increase the time of the observation by up to 10%, to allow the apprentice to complete their final task or their last answer.

KSBs observed, and answers to questions must be recorded by the independent assessor.

The independent assessor will make all grading decisions.

EPAOs must prepare an observation specification for the core and each option and a set of example open questions. For resits and/or re-takes the independent assessor must use different observation and question specifications.

Venue

The observation must take place in the apprentice's employer's premises, under normal working conditions. The EPAO must confirm the necessary materials; equipment and tools are available to the apprentice.

Supporting material

EPAOs must produce the following material to support this assessment method:

- observation specifications, the 'specification bank,' must be of sufficient size to prevent predictability and be reviewed regularly (at least once per year) to ensure they are fit for purpose
- example open questions to assess related underpinning knowledge, skills and behaviours. The 'question bank' must be of sufficient size to prevent predictability and be reviewed regularly (and at least once a year) to ensure that it, and its content, are fit for purpose. It is recommended that questions are developed in consultation with representative employers of this occupation. EPAOs must maintain the security and confidentiality of their questions when consulting employers
- assessment recording documentation
- guidance for apprentices and employers

Assessment method 3: Interview, underpinned by portfolio of evidence

Overview

This assessment method has one component: Interview.

The rationale for this assessment method is:

- it allows the apprentice to be assessed against KSBs that may not occur naturally on a daily basis and would take too long to observe or do not lend themselves to observation within the 10 hour period
- the interview is underpinned by a portfolio of evidence, enabling the apprentice to demonstrate the application of knowledge, skills and behaviours
- it allows for testing of responses where there are a number of potential answers that couldn't be tested through the knowledge test
- it is cost effective, as it makes use of the employers premises and does not require additional resources

Delivery

The interview must be appropriately structured to draw out the best of the apprentice's competence. Apprentices must be assessed against the KSBs assigned to this assessment method – as shown in the mapping of the KSBs.

EPAOs must make arrangements for this assessment method with the apprentice's employer.

Independent assessors must conduct and assess the interview on a one-to-one basis.

The interview must last for 45 minutes. The independent assessor has the discretion to increase the time of the interview by up to 10% to, allow the apprentice time to complete their last answer.

The independent assessor must ask open, competence-based questions from their EPAO example question bank relating to the content of the portfolio of evidence; follow up questions devised by the independent assessor may be used to seek clarification. The independent assessor should consider the level of English that the apprentice is working at and pitch questions using appropriate language to ensure inclusivity. Apprentices are expected to understand and use relevant occupational language.

The questions will focus on coverage of prior activity evidenced in the apprentice's portfolio of evidence. Apprentices should refer to and illustrate their answers with evidence from their portfolio of evidence. The portfolio of evidence must be reviewed by the independent assessor prior to the interview.

Questions must cover the grading criteria and KSBs (core and option) assigned to this assessment method (minimum of one question per criteria with opportunity for all apprentices to access the highest grade available)

The independent assessor must use the assessment tools and procedures that are set by the EPAO to record the interview.

Evidence from the questioning must be assessed holistically using the grading criteria for this assessment method. The independent assessor will make all grading decisions.

EPAOs must ensure that apprentices have a different set of questions in the case of re-sits and/or retakes.

Independent assessors must be developed and trained by the EPAO in the conduct of interviews and reaching consistent judgements.

Venue

The interview, underpinned by a portfolio of evidence can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO, for example a training provider's premises.

Video conferencing can be used to conduct the interview, but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

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The interview, underpinned by portfolio of evidence must take place in a quiet room, free from distractions and influence.

Supporting material

EPAOs must produce the following material to support this assessment method:

- a template interview schedule that covers the KSBs associated with each option
- example questions must be developed by EPAOs. The example 'question bank' must be of sufficient size to prevent predictability and be reviewed regularly (at least once a year) to ensure that it, and its content, are fit for purpose. It is recommended that questions are developed in consultation with representative employers of this occupation. EPAOs must maintain the security and confidentiality of their questions when consulting employers.
- assessment and grade decision recording documentation
- guidance for apprentices and employers.

Reasonable adjustments

The EPAO must have in place clear and fair arrangements for making reasonable adjustments for this occupational standard. This should include how an apprentice qualifies for reasonable adjustments and what reasonable adjustments will be made. The adjustments must maintain the validity, reliability and integrity of the assessment methods outlined in this assessment plan.

Weighting of assessment methods

The observation and questioning is graded pass or fail only, the interview underpinned by a portfolio of evidence and the knowledge test assessment methods determine whether a distinction grade is awarded.

Grading

Performance in the EPA will determine the apprenticeship grade of fail, pass or distinction.

Independent assessors must individually grade each assessment method, according to the requirements set out in this plan.

EPAOs must combine the individual assessment method grades to determine the overall EPA grade.

Apprentices who fail one or more assessment method will be awarded an EPA 'fail.'

In order to 'pass' overall apprentices must achieve a pass in all three assessment methods.

In order to achieve a 'distinction' overall apprentices must achieve a pass in the observation with questioning, a distinction in the interview, and a distinction in the knowledge test.

Grades from individual assessment methods should be combined in the following way to determine the grade of the EPA as:

Assessment method 1 – Knowledge test	Assessment method 2 – Observation with Questioning	Assessment method 3 – Interview, underpinned by portfolio	Overall grading
Any grade	Fail	Any grade	Fail
Any grade	Pass	Fail	Fail
Fail	Pass	Any grade	Fail
Pass	Pass	Pass	Pass
Pass	Pass	Distinction	Pass
Distinction	Pass	Pass	Pass
Distinction	Pass	Distinction	Distinction

Re-sits and re-takes

Apprentices who fail one or more assessment method will be offered the opportunity to take a re-sit or a re-take. A re-sit does not require further learning, whereas a re-take does.

Apprentices should have a supportive action plan to prepare for the re-sit or a re-take. The apprentice's employer will need to agree that either a re-sit or re-take is an appropriate course of action.

An apprentice, who fails an assessment method, and therefore the EPA in the first instance, will be required to re-sit or re-take any failed assessment method(s) only.

Re-sits and re-takes are not offered to apprentices wishing to move from pass to distinction.

Where any assessment method has to be re-sat or re-taken, the apprentice will be awarded a maximum EPA grade of pass, unless the EPAO determines there are exceptional circumstances requiring a re-sit or re-take.

The amount of re-sits and re-takes to be undertaken by an individual apprentice is at the discretion of the employer.

Roles and responsibilities

Role	Responsibility
Apprentice	<ul style="list-style-type: none"> complete the on-programme requirements of the apprenticeship prepare for and complete the EPA
Employer	<ul style="list-style-type: none"> identify when the apprentice has passed the gateway and is ready to undertake their EPA notify the EPAO that the apprentice has passed the gateway

EPAO	<p>As a minimum EPAOs should:</p> <ul style="list-style-type: none"> • appoint independent assessors • provide training and CPD to independent assessors • have no direct connection with the apprentice, their employer or training provider i.e. there must be no conflict of interest • have processes in place to conduct internal quality assurance and do this on a regular basis • organise standardisation events and activities • organise and conduct moderation of independent assessors' marking • have, and operate, a complaints and appeals process
Independent assessor	<p>As a minimum an independent assessor should:</p> <ul style="list-style-type: none"> • be independent of the apprentice, their employer and training provider(s) i.e. there must be no conflict of interest • meet the experience a requirements in accordance with this plan and have had training from their EPAO in terms of good assessment practice, operating the assessment tools and grading • attend EPAOs standardisation and training events • meet qualification requirements in accordance with the Internal Quality Assurance requirements of this plan
Training provider	<p>As a minimum the training provider should:</p> <ul style="list-style-type: none"> • work with the employer to ensure that the apprentice is given the opportunities to develop the KSBs outlined in the occupational standard and monitor their progress during the on-programme period • advise the employer, upon request, on the apprentice's readiness for EPA prior to the gateway • plays no part in the EPA itself

Internal Quality Assurance (IQA)

Internal quality assurance refers to the requirements that EPAOs must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPAOs for this EPA must:

- appoint independent assessors who have:
 - comprehensive experience of roofing i.e. three years or more experience in the sector
 - relevant experience of the occupation and sector i.e. worked in the sector in the last ten years or can demonstrate current knowledge and skills developed through continued professional development
 - hold a qualification as listed within 'Assessing and Assuring Quality of Assessment', either in the Regulated Qualification Framework (RQF) or the Scottish Credit and Qualifications Framework (SCQF) and may include:
 - Level 3 Certificate in Assessing Vocational Achievement (CAVA)
 - Level 3 Award in Assessing Competence in the Work Environment

- Level 3 Award in Assessing Vocationally Related Achievement
- Level 3 Award in Assessing Vocational Achievement or:
- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance using differing sources of evidence.

Note: Holders of A1 and D32/33 must assess to the current learning and development assessment criteria.

- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading. Independent assessors must attend standardisation at least once per year.
- have robust quality assurance systems and procedures that support fair, reliable and consistent assessment across the organisation and over time
- operate induction training and standardisation events for independent assessors when they begin working for the EPAO on this apprenticeship standard and before they deliver an updated assessment method for the first time. EPAOs must ensure that independent assessors attend standardisation activity relevant to this occupational standard at least once per year.

Affordability

Affordability of the EPA will be ensured by using at least some of the following practice:

- online testing
- using video conference to conduct the interview
- using an employer's premises, equipment and resources for the observation

Mapping of knowledge, skills and behaviours (KSBs)

Assessment method 1: Knowledge test

Core Knowledge
K1. The principles of health, safety and welfare, employment law, and how these are applied in the workplace
K2. The different techniques and methods used to move, handle and store materials
K3. How to interpret and use relevant product information and specifications
K4. The standards and codes of practice that apply to roofing
K5. How to calculate quantity, length, area and wastage of resources
K6. The principles of condensation, the factors involved and standard methods of control in roofs
K7. The principles of insulation and effects on heat loss in roofs
K8. Basic drawings and how to calculate material quantities from given information
K9. The principles relating to common defects, and the repair and maintenance of roofs
K10. Why, when and how health and safety control equipment should be used when undertaking roofing work (e.g. personal protective equipment (PPE) and respiratory protective equipment (RPE))
K11. How to use, maintain and store hand tools, power tools and associated equipment
K12. How to work safely at height and use access equipment
K13. The needs of other workers and how to work effectively with others
K14. The characteristics, quality, uses, sustainability, limitations and defects associated with standard roofing products and components used in their own specialism and the general roofing industry

Assessment method 2: Observation with questioning

Core Skills
S1. Work safely and be aware of key health, safety and welfare issues
S2. Plan and carry out their work to commercial standards of quality and speed
S3. Move, handle and store resources, complying with relevant legislation and guidance
S4. Interpret and follow verbal and written work instructions from trade supervisors and site managers
S5. Select the required materials and resources to carry out the work
S7. Install related materials and components to a given specification
S8. Use, maintain and store hand tools, power tools and associated equipment
S9. Access, interpret and use drawings and specifications to carry out work

Core Behaviours
B5. Working effectively: undertake the work in a reliable and productive manner
B6. Time management: use own time effectively to complete work on schedule
Option 1 Roof Slater and Tiler Skills
S10. Carry out a range of job tasks including measuring, marking out, fitting, finishing, positioning and securing
Option 1 Roof Slater and Tiler Knowledge
K17. How to strip and reclaim slates, tiles and fittings for re-use
K18. How to check areas to be covered, including correct installation of cavity trays, fascia board height, barge boards, hip and valley construction, penetrations, and masonry
Option 2 Waterproof Membrane Installer Skills
S17. Carry out a range of job tasks including measuring, marking out, fitting, finishing, positioning and securing
S21. Install reinforced bitumen, single-ply and liquid applied waterproofing systems
Option 2 Waterproof Membrane Installer Knowledge
K20. The principles of membrane waterproofing systems and how they are applied in routine tasks, such as, preparing surfaces, installing insulation, installing background materials, installing main roof coverings to include bitumen membranes, single ply and liquid applied systems, fixings, fittings and components, roof windows and lights
K22. The differences between and the characteristics of warm, cold and inverted (waterproofing layer as the base) roofs
Option 3 Roof Sheeter and Cladder Skills
S26. Carry out a range of job tasks including measuring, marking out, fitting, finishing, positioning and securing
Option 3 Roof Sheeter and Cladder Knowledge
K23. The principles of sheeting and cladding and how they are applied in routine tasks, to include, assessing structures, removal of existing materials, installing insulation, installing main roof coverings to include composite, standing seam, secret fix, single-skin, fibre cement, and built up systems, flashings, fixings, fittings and components, ventilation systems and roof lights
K25. How to requisition sheeting and cladding materials

Assessment method 3: Interview, underpinned by portfolio

Core Skills
S6. Set up, check and operate plant and/or equipment
Core Behaviours

B1. Effective communication: oral, written, listening, body language, presentation
B2. Team work: work effectively with others with limited supervisions
B3. Independent working: take responsibility for completing own work
B4. Logical thinking: use clear and valid reasoning when making decisions
B7. Adaptability: be able to adjust to changes to work instructions
Option 1 Roof Slater and Tiler Skills
S11. Install plain tiles, interlocking tiles and natural slates.
S12. Install underlay, battens and related roofing components
S13. Install pre-formed lead and/or proprietary flashings
S14. Install dry and wet fixed products to verges, hips, ridge and valleys
S15. Install insulation and ventilation products for warm and cold roof construction
S16. Install roof windows and flashing kits
Option 1 Roof Slater and Tiler Knowledge
K15. The principles of slating and tiling (plain tiles, interlocking tiles, natural slates and fibre-cement slates) and how they are applied in routine tasks, such as, setting out roofs, installing insulation, underlay and other background materials, installing main roof coverings, fixings, fittings and components, ventilation and dry fix systems, roof windows, mixing and applying mortar and installing pre-formed lead, proprietary flashings
K16. How to use key dimensions relating to batten gauges and minimum and maximum head lap
K19. How to requisition slating and tiling materials, such as tiles, slates, underlay, battens, fixings and related materials, fittings and components
Option 2 Waterproof Membrane Installer Skills
S18. Clean, dry and prepare surfaces for specified system
S19. Install vapour control layers to prevent vapour coming through the building to protect insulation
S20. Install mechanically fixed and/or adhered insulation as required by the given specification
S22. Terminate waterproofing systems at the perimeter upstands and/or open edges to the given specification
S23. Maintain and repair flat and/or pitched roofs (in excess of 10 degrees)
S24. Install perimeter details (edge trims, counter flashings termination bars)
S25. Work around outlets, pipes, soil and vent fittings, safety systems and roof lights
Option 2 Waterproof Membrane Installer Knowledge
K21. How to requisition membrane waterproofing materials, such as bitumen membranes, single-ply, liquid applied systems and related materials, fittings and components

Option 3 Roof Sheeter and Cladder Skills
S27. Assess suitability of structure to receive cladding materials
S28. Install built-up, standing seam, secret fix, composite and fibre-cement systems and rainwater goods
S29. Maintain, repair and over-sheet existing roofs
S30. Install flashings, vents, fittings and components as appropriate to the specification.
S31. Work around penetrations and upstands
Option 3 Roof Sheeter and Cladder Knowledge
K24. Asbestos awareness

Grading descriptors

To achieve a Pass, the apprentice must meet all core pass requirements plus all pass requirements for their chosen Option.

If any of the pass requirements are not met the apprentice will be awarded a fail grade.

Assessment method 1: Knowledge Test

The following grade boundaries apply to the knowledge test:

Grade	Minimum score	Maximum score
Distinction	41	50
Pass	26	40
Fail	0	25

Assessment method 2: Observation with questioning

KSBs	Pass
To achieve a Pass, the apprentice must meet all core pass requirements plus all pass requirements for their chosen Option.	
CORE	
S1	Demonstrate an ability to work safely taking health, safety and welfare issues into account (S1)
S2	Demonstrate that work has been planned in line with commercial standards (S2)
S3	Show the safe movement and handling of resources in line with relevant legislation and guidance (S3)
S4	Demonstrate correct interpretation of verbal and written work instructions (S4)
S5	Select required materials and resources needed to carry out the work (S5)
S7	Install materials and components to the given specification (S7)
S8	Demonstrate the safe use of hand and power tools (S8)
S9	Use and interpret drawings and specifications to carry out work (S9)
B5	Adapts approach when carrying out work to meet work instructions in a timely and efficient manner (B5, B6)
B6	
OPTION 1 : ROOF SLATER AND TILER	
S10	Demonstrate measuring, marking out, fitting, finishing, positioning and securing roof components (S10)
K17	Know, (where not inferred by demonstration) confirm by questions based upon the following:
K18	Explain the process for stripping and reclaiming slates, tiles and fittings for reuse (K17)
	Describe how to complete the installation of cavity trays, fascia board height, barge boards and how to construct hips and valleys (K18)
OPTION 2 : WATERPROOF MEMBRANES INSTALLER	
S17	Demonstrate measuring, marking out, fitting, finishing, positioning and securing roof components (S17)
S21	Know, (where not inferred by demonstration) confirm by questions based upon the following:
K20	Describe processes not viewed during the observation e.g. the installation of reinforced bitumen, single-ply or liquid applied waterproofing systems (S21, K20)
K22	Describe the differences between and the characteristics of warm, cold and inverted roofs (K22)

OPTION 3: ROOF SHEETER AND CLADDER

S26 K23 K25	<p>Demonstrate measuring, marking out, fitting, finishing, positioning and securing roof components (S26)</p> <p>Know, (where not inferred by demonstration) confirm by questions based upon the following:</p> <p>Explain ventilation systems and roof lights (K23)</p> <p>Describe the process used for the requisition of sheeting and cladding materials (K25)</p>
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Assessment method 3: Interview, underpinned by portfolio

KSBs	Pass	Distinction
	To achieve a Pass, the apprentice must meet all core pass requirements plus all pass requirements for their chosen option.	To achieve a Distinction, in addition to the pass criteria the apprentice must also demonstrate all core distinction criteria plus at least 3 from their chosen option:
CORE		

KSBs	Pass	Distinction
S6 B1 B2 B3 B4 B7	<p>Describe the process for setting up, checking and operating plant and/or equipment (S6)</p> <p>Explain what teamwork is including how to work effectively with others with limited supervision (B2)</p> <p>Explain effective communication including oral, written, listening, body language and presentation (B1)</p> <p>Explain independent working and how to take responsibility for completing own work (B3)</p> <p>Explain logical thinking and how to use clear and valid reasoning when making decisions (B4)</p> <p>Describe an instance when they have adjusted their work plan to changes in work instructions (B7)</p>	<p>Name and give an interpretation of the standards and codes of practice that apply to roofing (B3)</p> <p>Explain the principles relating to common defects and the repair and maintenance of roofs (B4)</p>

OPTION 1: ROOF SLATER AND TILER

S11	Explain how to install plain tiles, interlocking tiles and natural slates (S11)	Describe how to shape, mould and install pre-formed lead and proprietary flashings (S13, K15)
S12		Justify the use of dry and wet fixed products to verges, hips, ridge and valleys for various roof types (S14, K15)
S13	Explain how to install underlay, battens and related roofing components (S12)	
S14	Explain how to install pre-formed lead and/or proprietary flashings (S13)	Describe the reasons why insulation and ventilation products are used in warm and cold roof construction (S15, K15)
S15	Explain how to install dry and wet fixed products to verges, hips, ridge and valleys (S14)	State geometrical formula in explaining how to use key dimensions relating to batten gauges and minimum and maximum head lap (K15)
S16		
K15	Explain how to install insulation and ventilation products for warm and cold roof construction (S15)	
K16	Explain how to install roof windows and flashing kits (S16)	
K19	Describe the principles of slating and tiling and how they are applied in routine tasks (K15)	
	Explain how to use key dimensions relating to batten gauges and minimum and maximum head lap (K16)	
	Explain how to requisition slating and tiling materials, such as tiles, slates, underlay, battens, fixings and related materials, fittings and components (K19)	

OPTION 2: WATERPROOF MEMBRANE INSTALLER		
S18	Explain how to clean, dry and prepare surfaces for specified system (S18)	Describe the reasons why vapour control layers are installed and the consequences of incorrect installation (S19,)
S19	Explain how to install vapour control layers to prevent vapour coming through the building to protect insulation (S19)	
S20	Explain how to install mechanically fixed and/or adhered insulation as required by the given specification (S20)	Describe why insulation would be required when applying waterproof membrane systems (S20)
S22	Explain how to terminate waterproofing systems at the perimeter upstands and/or open edges to the given specification (S22)	Explain why waterproofing systems need to be terminated at the perimeter upstands and open edges (S22,)
S23	Explain how to maintain and repair flat and/or pitched roofs (in excess of 10 degrees) (S23)	Describe why roof covered with waterproofing systems need to be maintained and give reasons for using specific repair techniques with each system (S23)
S24	Explain how to install perimeter details (edge trims, counter flashings termination bars) (S24)	
S25	Explain how to work around outlets, pipes, soil and vent fittings, safety systems and roof lights (S25)	
K21	Describe the requisition of membrane waterproofing materials (K21)	
OPTION 3: ROOF SHEETER AND CLADDER		
S27	Explain how to assess suitability of structure to receive cladding materials (S27)	State the criteria used to assess the suitability of a structure prior to installing cladding materials (S27)
S28	Explain how to install built-up, standing seam, secret fix, composite and fibre cement systems and rainwater goods (S28)	Describe why roof sheeting and cladding needs to be maintained and how repairs can be completed for at least three common faults (S29)
S29	Explain how to maintain, repair and over-sheet existing roofs (S29)	
S30	Explain how to install flashings, vents, fittings and components as appropriate to the specification. (S30)	Explains why they need to ensure the integrity of work around penetrations and upstands (S31)
S31		
K24		

	Explain how to work around penetrations and upstands (S31) Describe the principles of asbestos awareness (K24)	
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