

# End-point assessment plan for Stonemason apprenticeship standard

Apprenticeship standard reference number	Apprenticeship standard level	Integrated end-point assessment
ST0442	2	No

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## Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the Stonemason 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 Stonemason apprentices, their employers and training providers.

Full time apprentices will typically spend 24 months on-programme (before the gateway) working towards the occupational standard. All apprentices must spend a minimum of 12 months on-programme. Apprentices will be assessed in the core component of the standard and one of the optional components of the standard. 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/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 professional discussion.

The EPA must be completed within an EPA period lasting typically 3 months, after the EPA gateway.

An approved EPAO must conduct the EPA for this apprenticeship. Employers must select an approved EPAO from the apprenticeship providers and assessment register (APAR).

The EPA consists of 2 discrete assessment methods.

The individual assessment methods will have the following grades:

### **Assessment method 1:** Observation with questioning

- Fail
- Pass

### **Assessment method 2:** Professional discussion underpinned by a portfolio of evidence

- Fail
- Pass
- Distinction

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

- Fail
  - Pass
  - Distinction
-

## EPA summary table

<b>On-programme</b> (typically 24 months)	<p>Training to develop the occupation standard's knowledge, skills and behaviours (KSBs).</p> <p>The apprentice must complete training towards English and maths qualifications in line with the apprenticeship funding rules.</p> <p>Compiling a portfolio of evidence.</p>
<b>End-point assessment gateway</b>	<ul style="list-style-type: none"> <li>• Employer is satisfied the apprentice is consistently working at, or above, the level of the occupational standard.</li> <li>• The apprentice must have achieved English and maths qualifications in line with the apprenticeship funding rules.</li> </ul> <p>Apprentices must submit for the professional discussion:</p> <ul style="list-style-type: none"> <li>• A portfolio: the portfolio will have been completed by the apprentice during their on-programme training and submitted to the EPAO either in hard-copy or electronic format at the gateway. The portfolio must cover the knowledge, skills and behaviours that are mapped to the professional discussion assessment method which it underpins. Please see Gateway section below for full details.</li> </ul>
<b>End-point assessment</b> (which will typically take 3 months)	<p>Assessment method 1: Observation with questioning</p> <p>With the following grades:</p> <ul style="list-style-type: none"> <li>• Fail</li> <li>• Pass</li> </ul> <p>Assessment method 2: Professional discussion underpinned by a portfolio of evidence</p> <p>With the following grades:</p> <ul style="list-style-type: none"> <li>• Fail</li> <li>• Pass</li> <li>• Distinction</li> </ul> <p>Overall apprenticeship graded:</p> <ul style="list-style-type: none"> <li>• Fail</li> <li>• Pass</li> <li>• Distinction</li> </ul>
<b>Professional recognition</b>	<p>N/A</p>

## Length of end-point assessment period

The EPA (including all assessment methods) will typically be completed within three months of the gateway.

## Order of assessment methods

The assessment methods can be delivered in any order. The result of one assessment method does not have to be known before an apprentice starts the next one. Typically, both assessment methods could be undertaken on the same day.

## 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 those with an education, health and care plan or a legacy statement the apprenticeship's English and mathematics minimum requirement is Entry Level 3 and British Sign Language qualification are an alternative to English qualifications for whom this is their primary language.

For the observation with questioning

- no specific requirements

For the professional discussion

- apprentices must compile a portfolio of evidence during the on-programme period of the apprenticeship
- it must contain evidence related to the KSBs that will be assessed by the professional discussion
- the portfolio will have been completed by the apprentice during their on-programme learning and presented to the EPAO in either hard-copy or electronic format at the gateway. The portfolio will cover the knowledge, skills and behaviours as mapped to the professional discussion which it underpins. It should not include commentary of a self-reflective nature or any self-assessment.
- the portfolio of evidence itself is not assessed; it is used to underpin the questioning for the professional discussion. Training providers are free to devise their own version of the portfolio of evidence, but it is expected to include:

- typically, 10 discrete pieces of evidence (i.e. one per duty: one for each of the 8 core duties and one for each of the 2 optional duties completed by the apprentice) ○ evidence must be mapped against the KSBs
- evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested
- evidence sources may include: ○ workplace documentation/records/policies/procedures ○ witness statements ○ annotated photographs
- video clips (maximum total duration 5 minutes); the apprentice must be in view and identifiable
- evidence of line manager observations carried out over the period of the apprenticeship which must be focused on direct factual observations rather than the employer's opinion of the apprentice, and an appraisal report completed by the employer towards the end of the on-programme period.
- Written summaries for each piece of evidence highlighting what the piece is and which KSBs it represents.

This is not a definitive list; other evidence sources are possible.

- the portfolio produced must be the apprentice's work only; employer support should not extend to any direct contributions to the collation or production of the portfolio. The evidence provided must be valid and attributable to the apprentice; the portfolio of evidence must contain a statement from the employer and apprentice confirming this.
- the portfolio must be submitted to the EPAO at the gateway.

# Assessment methods

## Assessment method 1: Observation with questioning

### Overview

This assessment method has one component: observation with questioning.

Apprentices must be observed by an independent assessor completing work in their normal workplace, in which they will demonstrate the KSBs assigned to this assessment method. The EPAO will arrange for the observation to take place, in consultation with the employer.

The rationale for this assessment method is:

The occupation involves practical activities, which are best assessed through observation of a real workplace environment and will give independent assessors the confidence in the apprentice's overall ability to perform satisfactorily on-site or in a workshop.

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 employer's premises and resources, and the tasks chosen reflect something that would be completed by stonemasons' 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 professional discussion. The independent assessor will ask questions in relation to underpinning knowledge or where an opportunity to observe an activity has not naturally occurred.

### 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 as shown in the mapping of KSBs.

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

An independent assessor must only observe up to four apprentices at any one time, to allow for quality and rigour. The independent assessor must be unobtrusive whilst conducting the observation.

The observation with questioning must take 6 hours and 30 minutes. The observation may be split into discrete sections held over a maximum of one working day. 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 and for meal or comfort breaks; such breaks will not contribute to the assessment time. EPAOs must manage invigilation of apprentices during breaks in order to maintain security of the assessment in line with their malpractice policy.

The independent assessor has the discretion to increase the time of both the observation and the questioning by up to 10%, to allow the apprentice to complete their last practical task or to complete their last answer.

Apprentices must be provided with information on the format of the observation, including the timescales they will be working to before the start of the observation. The time taken to give this information is exclusive of the assessment time.

The following activities must be observed during the observation:

- basic stonemasonry practices
- preparing to work (all trade areas)
- working safely, pre-operation checks and selection of machinery & tools, movement and lifting of stone, correct PPE

The independent assessor must ask a minimum of 5 open questions. Questioning can occur during or after the observation. The time for questions asked during and after the observation is included in the overall assessment time. The purpose of the questioning is to assess underpinning knowledge and behaviours and to determine whether the apprentice has achieved all the pass criteria. Independent assessors must use the EPAO question bank as a source for questioning and are expected to use their professional judgment to tailor those questions appropriately. Independent assessors are responsible for generating suitable follow-up questions in line with the EPAOs training and standardisation process.

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

Independent assessors will make all grading decisions.

### Assessment location

Dependent on where the current apprentice's work is taking place, the observation may take place in the apprentice's employer's premises or the customer's premises under normal working conditions. The employer must ensure the necessary materials and equipment/tools are available to the apprentice.

### Other relevant information

EPAOs will create and set open questions to assess KSBs mapped to this assessment method. Each EPAO must develop a question bank of sufficient size to prevent predictability and review them regularly (and at least once a year) to ensure the questions they contain are fit for purpose. It is recommended that questions are developed in consultation with employers of this occupation. EPAOs must maintain the security and confidentiality of their questions when consulting employers.

Independent assessors must use the question bank as a source for questioning and are expected to use their professional judgment to tailor those questions appropriately. Independent assessors are responsible for generating suitable follow-up questions in line with the EPAO's training and standardisation process. The questions relating to underpinning KSBs must be varied yet allow assessment of the relevant KSBs.

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

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

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

- outline of the assessment method's requirements

- question bank
- marking materials
- guidance for apprentices and employers
- assessment recording documentation
- independent assessor training materials
- grading guidance

## Assessment method 2: Professional discussion underpinned by a portfolio of evidence

### Overview

This assessment will take the form of a professional discussion which must be appropriately structured to draw out the best of the apprentice's competence and excellence and cover the KSBs assigned to this assessment method and the apprentice may use their portfolio to support their responses.

The rationale for this assessment method is:

A professional discussion is not simply a question and answer session but a two-way dialogue between the apprentice and the independent assessor. It allows the apprentice to use their own context as a starting point to discuss their own practice and experiences, with supporting evidence from their portfolio. A professional discussion is a well-recognised method of checking knowledge, skills and behaviours and is widely used within the creative and craft sector. The professional discussion will also allow some KSBs which may not regularly naturally occur in every workplace to be assessed as well as the assessment of a disparate set of KSBs.

### Delivery

The independent assessor will conduct and assess the professional discussion.

The professional discussion must last for 60 minutes. The independent assessor has the discretion to increase the time of the professional discussion by up to 10% to allow the apprentice to complete their last answer.

During this method, the independent assessor must combine questions from the EPAO's question bank and those generated by themselves.

The professional discussion will be conducted as set out here:

The questioning and evidence provided for this assessment will enable the apprentice to demonstrate the depth of their knowledge, skills and behaviours and understanding in their craft.

A minimum of 10 open questions will be asked during the professional discussion. The independent assessor can ask follow-up questions during the professional discussion to gain clarity to answers or evidence provided by the apprentice. The independent assessor is free to use the EPAO question bank as well as generate their own questions.



The independent assessor will conduct and assess the professional discussion. The portfolio will be reviewed prior to the professional discussion to allow the assessor to generate questions based on the portfolio. The independent assessor will have 2 weeks to review the portfolio prior to the professional discussion. The EPAO will typically give the apprentice at least one week's notice prior to conducting the professional discussion.

The apprentice must evidence how they have demonstrated the KSBs assigned to the professional discussion. Apprentices must be given the opportunity to refer to their portfolio of evidence during the professional discussion.

The professional discussion is carried out on a one-to-one basis. It is envisaged this will typically be in person, however the professional discussion may take place using video conferencing (see venue section below for details).

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

The independent assessor will make all grading decisions.

### **Assessment location**

The professional discussion should take place in a quiet room, free from distractions and influence.

The professional discussion 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 also be used to conduct the professional discussion, but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

### **Other relevant information**

A question bank must be developed by EPAOs. The 'question bank' must be of sufficient size to prevent predictability and the EPAO must be reviewed regularly (at least once a year) to ensure that it, and its content, are fit for purpose. The questions relating to the underpinning KSBs, must be varied yet allow assessment of the relevant KSBs.

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

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

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

- outline of the assessment method's requirements
- marking material
- question bank
- independent assessor training materials
- grading guidance

- guidance document for employers and apprentices on the process / timescales for the professional discussion underpinned by portfolio of evidence as well as a description of the purpose
- guidance document for independent assessors on how to carry out the assessment

## Reasonable adjustments

The EPAO must have in place clear and fair arrangements for making reasonable adjustments to the assessment methods for the EPA for this apprenticeship standard. This should include how an apprentice qualifies for reasonable adjustment 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

All assessment methods are weighted equally in their contribution to the overall EPA pass grade.

# Grading

## Assessment method 1: Observation with questioning

To achieve a pass in this assessment method, all pass criteria must be attained by the apprentice in the core section and for their chosen option.

Distinction grade is not available for this assessment method.

KSBs	Pass
<b>CORE KSBs</b>	
<b>Health and Safety</b>  K1 S1 S13 B1 B5	<p>Applies safe stonemasonry working practices in compliance with current HSE legislation, prepares and conducts risk assessments and reports, as required, including the reporting of any breaches of legislation or incidents mandated by workplace policy (K1, S1, B1)</p> <p>Establishes and applies an approach to work which reflects their mandatory workplace guidelines for work spaces, waste materials, transport, recycling and zero/low carbon outcomes (S13, B5)</p>
<b>Tools and Materials</b>  K2 K4 S2 S3.1 S5	<p>Selects and uses correct tools, components and equipment for the task in accordance with manufacturer's instructions (and also in accordance with workshop practices for those tools, components and equipment made within the workshop), including carrying out pre/post-use checks and applying relevant safeguards (K2, S2, S3.1)</p> <p>Selects the type(s) and quantity of materials for the task and moves, handles and stores them safely in order to reduce risk of damage to materials (K4, S5)</p>
<b>Workflow</b>  S4 B4 B6	<p>Establishes an approach to the task which follows the sequence of instructions logically and demonstrates that work is completed safely, within the budget and time allocated and demonstrates the reporting of situations affecting the work schedule (S4, B4)</p> <p>Establishes an approach to timekeeping and working to a schedule which reflects the guidelines set out by the organisation (B6)</p>
<b>Masonry Processes</b>	<p>Prepares and sets out stone surfaces to receive enrichments (capable of receiving flat, moulded, straight and curved, internal and external mitres, stop ends or returned ends), removing deteriorated/inappropriate materials as</p>

<p>K6 S8 S10 S15</p>	<p>required, mixes mortars and adhesives to agreed specification, working to the procedures set out for their application (K6, S8)</p> <p>Positions and secures stones in the required locations and identifies bedding planes to suit the use of the stone component being used. When securing stone, applies the stipulated measurement, marking out, shape, level, fit, finish and position to ensure products are the right size and fit to meet the design specification (S10, S15)</p>
<p><b>Customer Service and Communication</b></p> <p>K11</p>	<p>Identifies other workshop or on-site functions where stonemasons would have interactions with, such as other linked professions and internal and external customers (K11)</p>
<p><b>OPTIONAL KSBs</b></p>	
<p><b>Banker Stonemason</b></p> <p>K14 S6 S7 S16</p>	<p>Measures, marks out, cuts and finishes standard templates or moulds as required by the job specification (K14, S6)</p> <p>Produces true and square natural stone components, and basic section beds and face moulds for natural stone components (S7, S16)</p>
<p><b>Interior Stone Fixer</b></p> <p>K18 S19 S21</p>	<p>Mixes and applies mortar and sand renders, adhesives, grouts, substrates and screeds (including self-levelling) and installs thermal, movement and expansion joints as required by the job specification (S19)</p> <p>Grouts, seals, cleans, secures and finishes stonework in order to protect final product. Beds, joints and points natural stone flooring, matching finishes where possible and fixes accessories to wall slabs as required by the job specification (K18, S21)</p>

<p><b>Exterior Stone Fixer</b></p> <p>K18 K19 S21 S22</p>	<p>Prepares backgrounds for, and installs, load bearing support and restraint systems, insulation, cavity trays and damp proof membranes in accordance with safety procedures ; applies waterproof sealants to background surfaces, installs and removes mechanical fixings, shims and spacers as required by the job specification (K19, S22).</p> <p>Grouts, seals, cleans, secures and finishes stonework in order to protect final product. Beds, joints and points natural stone flooring, matching finishes</p>
	<p>where possible and correctly fixing accessories to wall slabs as required by the job specification (K18, S21)</p>
<p><b>Memorial Stonemason</b></p> <p>K22 S24 S25</p>	<p>Checks and records ground and surface conditions, excavates work area in accordance with safety procedures and lays foundations for, and installs/secures, memorial stones &amp; grave surrounds as required by the job specification (K22, S25)</p> <p>Prepares and mixes lime mortars, hydraulic and non-hydraulic limes, lime mortars with additives or lime mortars with fibres (natural or synthetic) as required by the job specification (S24)</p>
<p><b>Stone Facade Preservation</b></p> <p>K26 S24 S27</p>	<p>Dismantle, clean and preserve stone facades in accordance with safety procedures and the job specification (K26, S27)</p> <p>Prepares and mixes lime mortars, hydraulic and non-hydraulic limes, lime mortars with additives or lime mortars with fibres (natural or synthetic) as required by the job specification (S24)</p>
<p><b>Heritage Stonemason</b></p> <p>K27 K28 S29 S30 S31</p>	<p>Applies correct conservation techniques to maintain heritage and archaeological accuracy, using heritage techniques and procedures where appropriate with minimum intervention and minimum reversible alterations; this includes the prior collection of records (photographic, written or digital) (K27, S29, S31)</p> <p>Drills and cuts stone backgrounds as required by the job specification, to receive fixings sympathetic to the existing condition of heritage masonry and safely forms openings which conform to the requirements for heritage planning and buildings regulations (K28, S30)</p>
<p><b>Fail – apprentices will fail the assessment method where they do not demonstrate all of the pass criteria</b></p>	

## Assessment method 2: Professional discussion underpinned by a portfolio of evidence

To achieve a pass in this assessment method, all pass criteria must be attained by the apprentice in the core section and for their chosen option.

To achieve a distinction in this assessment method, all pass and all distinction criteria must be attained by the apprentice in the core section and for their chosen option.

KSBs	Pass	Distinction
<b>CORE KSBs</b>		
<b>Health and Safety</b>  K10 K12	Describes the environmental considerations in accordance with the Environmental Protection Act, how to safely dispose and minimise waste (re-use and recycle), in relation to the company's waste contractors permit, its energy efficiency and contribution to zero/low carbon outcomes (K10)  Describes the relevant building regulations and codes of practice which apply to the work of stonemasons (K12)	Explains why stonemasons should follow building regulations and codes of practice (K12)
<b>Tools and Materials</b>  S3.2	Describes how to maintain and repair tools according to manufacturers' specifications/guidelines (S3.2)	

<p><b>Workflow</b></p> <p>K3 B2 B7</p>	<p>Explains typical program requirements including procedures and resources available, sequencing of work to be completed and estimating timescales for work; correctly describes how to maintain workflow documentation and lists appropriate circumstances which would affect the program (K3)</p>	<p>Explains the reasons for recording and maintaining workflow documentation (K3)</p>
	<p>Describes their approach to work tasks and co-workers which reflects the behaviour policy of the organisation and demonstrates adaptability when instructions, contexts or environments change. (B2, B7)</p>	

<p><b>Masonry Processes</b></p> <p>K7 K9 K21 S12 B3</p>	<p>Outlines the methods of erecting and dismantling shores, struts, props and supports to structures whilst maintaining historical integrity, how to tool surfaces to the required finish to match existing masonry, how bedding plane position affects the use of the stone component and how to position and secure stones in the required location (K7)</p> <p>List the different types of lime mortars and the methods used to apply them (K21)</p> <p>Demonstrates taking responsibility such as complying with quality standards as per the job specification, reports variations in quality and undertakes corrective action where required (K9, S12, B3)</p>	<p>Explains why it is important to comply with organisational and manufacturer's quality standards for a given job and the impact of failing to do so (S12)</p> <p>Describes the advantages and disadvantages of different types of lime mortars (K21)</p>
<p><b>Customer Service and Communication</b></p> <p>K13 S14</p>	<p>Describes how they have used verbal, written and digital communication techniques in context with colleagues and customers using industry terminology (K13, S14)</p>	<p>Explains why they use different communication techniques for specific contexts (K13)</p>



<b>OPTIONAL KSBs</b>		
<p><b>Banker Stonemason</b></p> <p>K5 K8 K15</p> <p>S9 S11 S17</p>	<p>Describes why existing masonry provides the evidence for the production of replacement components, explains template and mould production, methods of obtaining true and square surfaces, stopped ends and curved moulds, mould shape consistency with a consideration for stone of different types and properties (K5)</p> <p>Identifies and outlines the reporting of sensitive areas with protected/endangered flora and fauna, justifies salvaging of materials/components, ethical sourcing of stone and describes methods of recognised conservation techniques (K8)</p> <p>Describes how they have produced enrichments for example, repeated enrichment, v-cut carving, high relief carving or low relief carving (S9)</p> <p>Describes how they have prepared, conserved, repaired and refurbished existing stone masonry by replicating, removing, replacing or stabilising the existing structure; describes how they have prepared mortars, finish joints and applied surface finishes matching them to existing masonry or in line with the conservation plan (S11)</p> <p>Explains how they have produced, used and accurately shaped/prepared bespoke natural stone components (K15, S17)</p>	<p>Explains how the production process of bespoke natural stone components differs with stone type (S17)</p>
<p><b>Interior Stone Fixer</b></p>	<p>Describes how to check and prepare existing internal surfaces to receive stone fixings/components, applying pre-</p>	<p>Explains why cleaning, preparation and sealing of surfaces is undertaken prior to any installation (K16)</p>

<p>K16 K17</p> <p>S18 S20</p>	<p>sealants, water and solvent based final sealants and protection as required by the job specification (K17, S18)</p> <p>Lists the faults to look for and checks to be carried out on existing internal surfaces to receive stonework; describes how to clean, prepare and select and apply sealants and protection to surfaces prior to any installation (K16)</p> <p>Describes how they have formed angles, reveals, cills and soffits, floor drainage and outlets, installed membranes and laid natural stone flooring to regular and irregular surfaces, fixed trims and movement joints including treads, risers and landings, fixed internal stonework to vertical, horizontal and inclined wall and floor surfaces and fitted internal treads, risers and work surfaces (S20)</p>	
<p><b>Exterior Stone Fixer</b></p> <p>K17 K20</p> <p>S23</p>	<p>Describes how they have installed, supported and finished external cladding (including the methods of preparing surfaces to receive stone fixings/components), repaired or replaced defective stone cladding as required; explains how they identify and mix mortars, resins and adhesives, identify and fix suitable reinforcements and fixings, and how these methods may vary depending on the location, environment and in-line with job specification (K17, K20, S23)</p>	<p>Explains why mortars resins and adhesives should be prepared and applied according to manufacturers' instructions and job specification' (S23)</p>

<p><b>Memorial Stonemason</b></p> <p>K23 K24</p> <p>S26</p>	<p>Describes the protocols relating to the bereaved and the public, specific requirements for sites of special interest, consecrated and non-consecrated ground, and sites with historical or environmental significance (K23)</p> <p>Describes what methods they applied to add and finish details on memorial stones. Describes how they produced and used templates for use with sandblasting and how they finished memorial work using gilding and hand polishing (K24, S26)</p>	<p>Explains how the methods of adding details, lettering &amp; ornamentation, inscriptions, finishing, gilding and hand polishing differ depending on the stone type being worked with (K24, S26)</p>
<p><b>Stone Facade Preservation</b></p> <p>K15 K25</p> <p>S28</p>	<p>Explains when and how to use bespoke natural stone components and how to accurately shape and prepare them (K15)</p> <p>Describes the different surface conditions of stone facades and how they record this and outlines the methods of chemical and nonchemical cleaning processes (K25)</p> <p>Describes methods they have used for restoring stone facades, façade surfaces, in-situ units and joints on different surfaces/materials (S28)</p>	<p>Explains their choice of restoration methods based on the type of stone/material of which the façade is made (S28)</p>
<p><b>Heritage Stonemason</b></p> <p>K5 K8 K29 K30</p> <p>S32</p>	<p>Describes why existing masonry provides the evidence for the production of replacement components, explains template and mould production, methods of obtaining true and square surfaces, stopped ends and curved moulds, mould shape consistency with a consideration for stone of different types and properties (K5)</p>	<p>Explains the consequences of failing to correctly recognise and report sensitive areas, endangered/protected flora and fauna and salvageable materials/components, as well as the impact of using the incorrect/inappropriate conservation techniques (K8)</p>

	<p>Identifies and outlines the reporting of sensitive areas with protected/endangered flora and fauna, justifies salvaging of materials/components, ethical sourcing of stone and describes methods of recognised conservation techniques (K8)</p> <p>Describes conservation techniques which maintain heritage and archaeological integrity, identifies the principles of minimum intervention and reversible alterations, stone types, when to refer for analysis and the historical context of projects (K29)</p> <p>Lists the methods of matching masonry components with existing structures, straight walling returns and rakes for new build and for buildings that are not straight and true. Lists methods of how to incorporate pre-prepared conservation masonry components and stones and coping and describes the process for generating designs/lettering using computer equipment and the principles of selecting/applying hand cut ornamentation (K30)</p> <p>Describes how to match new masonry components with existing structures and incorporate preprepared conservation masonry components; describes how to finish by applying hand cut ornamentation or lettering where required (S32)</p>	
<p><b>Fail</b> – apprentices will fail the assessment method where they do not demonstrate all of the pass criteria</p>		

## Overall EPA 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 must gain at least a pass in both methods to gain a pass overall. Apprentices must gain a pass in assessment method 1 (observation with questioning) and a distinction in assessment method 2 (professional discussion underpinned by a portfolio of evidence) to gain a distinction overall. A fail in either of the assessment methods will result in a fail overall.

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

Assessment method 1 – Observation with questioning	Assessment method 2 – Professional discussion underpinned by a portfolio of evidence	Overall grading
Fail	Any grade	Fail
Pass	Fail	Fail
Pass	Pass	Pass
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 at the employer's discretion. 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 methods only.

The timescale for a re-sit/re-take is agreed between the employer and EPAO. A re-sit is typically taken within 1 month of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 3 months of the EPA outcome notification.

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.

## Roles and responsibilities

Role	Responsibility
Apprentice	<p>As a minimum, apprentices should:</p> <ul style="list-style-type: none"> <li>• participate in development opportunities to develop/improve their knowledge skills and behaviours (KSBs) as outlined in the occupational standard</li> <li>• meet all gateway requirements</li> <li>• understand the purpose and importance of EPA and undertake EPA</li> <li>• undertake 20% off-the-job training as arranged by the employer and training provider</li> <li>• undertake the EPA including meeting all gateway requirements</li> </ul>
Employer	<p>As a minimum, employers should:</p> <ul style="list-style-type: none"> <li>• select the EPAO and training provider</li> <li>• work with the training provider (where applicable) to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs</li> <li>• arrange and support a minimum of 20% off-the-job training to be undertaken by the apprentice</li> <li>• decide when the apprentice is working at or above the occupational standard and so is ready for EPA</li> <li>• ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan</li> <li>• remain independent from the delivery of the EPA</li> <li>• confirm arrangements with the EPAO for the EPA (who, when, where) in a timely manner (including providing access to any employer-specific documentation as required, for example company policies)</li> <li>• ensure that the EPA is scheduled with the EPAO for a date and time which allow appropriate opportunity for the KSBs to be met</li> <li>• ensure the apprentice is well prepared for the EPA</li> <li>• ensure the apprentice is given sufficient time away from regular duties to prepare for and complete all post-gateway elements of the EPA, and that any required supervision during this time (as stated within this EPA plan) is in place</li> </ul>

	<ul style="list-style-type: none"> <li>• where the apprentice is assessed in the workplace, ensure that the apprentice has access to the resources used on a daily basis</li> <li>• pass the certificate to the apprentice</li> </ul>
EPAO	<p>As a minimum, EPAOs should:</p> <ul style="list-style-type: none"> <li>• conform to the requirements of this EPA plan and deliver its requirements in a timely manner</li> <li>• conform to the requirements of the Register of EndPoint Assessment Organisations (RoEPAO)</li> <li>• conform to the requirements of the external quality assurance provider (EQAP) for this apprenticeship standard</li> <li>• understand the occupational standard</li> <li>• make all necessary contractual arrangements, including agreeing the price of the EPA</li> <li>• develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material)</li> <li>• appoint suitably qualified and competent independent assessors</li> <li>• appoint administrators (and invigilators where required) to administer the EPA as appropriate</li> <li>• provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading</li> <li>• provide adequate information, advice and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA</li> <li>• arrange for the EPA to take place, in consultation with the employer</li> <li>• where the apprentice is not assessed in the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary</li> <li>• develop and provide appropriate assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders</li> <li>• have no direct connection with the apprentice, their employer or training provider. In all instances, including when the EPAO is the training provider (i.e. HEI), there must be no conflict of interest</li> </ul>

	<ul style="list-style-type: none"><li>• have policies and procedures for internal quality assurance (IQA), and maintain records of regular and robust IQA activity and moderation for external quality assurance (EQA) purposes</li><li>• deliver induction training for independent assessors, and for invigilators and/or markers (where used)</li><li>• undertake standardisation activity on this apprenticeship standard for all independent assessors before they conduct an EPA for the first time, if the EPA is updated and periodically as appropriate (a minimum of annually)</li><li>• manage invigilation of apprentices in order to maintain security of the assessment in line with the EPAO's malpractice policy</li><li>• verify the identity of the apprentice being assessed</li><li>• use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard</li><li>• provide details of the independent assessor's name and contact details to the employer</li><li>• have and apply appropriately an EPA appeals process</li><li>• request certification via the Apprenticeship Service upon successful achievement of the EPA</li></ul>
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Independent assessor	<p>As a minimum, independent assessors should:</p> <ul style="list-style-type: none"> <li>• have the competence to assess the apprentice at this level and hold any required qualifications and experience in line with the requirements of the independent assessor as detailed in the IQA section of this EPA plan</li> <li>• understand the occupational standard and the requirements of this EPA</li> <li>• have, maintain and be able to evidence up-to-date knowledge and expertise of the subject matter</li> <li>• deliver the end-point assessment in-line with the EPA plan</li> <li>• comply with the IQA requirements of the EPAO</li> <li>• have no direct connection or conflict of interest with the apprentice, their employer or training provider; in all instances, including when the EPAO is the training provider (i.e. HEI)</li> <li>• attend induction training</li> <li>• attend standardisation events when they begin working for the EPAO, before they conduct an EPA</li> </ul>
	<p>for the first time and a minimum of annually on this apprenticeship standard</p> <ul style="list-style-type: none"> <li>• assess each assessment method, as determined by the EPA plan, and without extending the EPA unnecessarily</li> <li>• assess against the KSBs assigned to each assessment method, as shown in the mapping of assessment methods and as determined by the EPAO, and without extending the EPA unnecessarily</li> <li>• make all grading decisions</li> <li>• record and report all assessment outcome decisions, for each apprentice, following instructions and using assessment recording documentation provided by the EPAO, in a timely manner</li> <li>• use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard</li> </ul>

Training provider	<p>As a minimum, the training provider should:</p> <ul style="list-style-type: none"> <li>• work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the knowledge, skills and behaviours as listed in the occupational standard</li> <li>• conduct training covering any knowledge, skill or behaviour requirement agreed as part of the Commitment Statement (often known as the Individual Learning Plan).</li> <li>• monitor the apprentice's progress during any training provider led on-programme learning</li> <li>• advise the employer, upon request, on the apprentice's readiness for EPA</li> <li>• remain independent from delivery of the EPA. Where the training provider is the EPA (i.e. a HEI) there must be procedures in place to mitigate against any conflict of interest</li> </ul>
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## 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 hold or be working towards an independent assessor qualification, for example TAQA (Training and Quality Assessment)
- appoint independent assessors who have recent relevant experience of the occupation/sector at the same level as the apprentice or higher gained in the last three years or significant experience of the occupation/sector
- appoint independent assessors who are competent to deliver the EPA
- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- 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
- ensure independent assessors attend standardisation events on an ongoing basis and at least once per year
- conduct appeals where required, according to the EPAO's appeals procedure, reviewing and making final decisions on assessment decisions and grades

## Affordability

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

- using an employer's premises and resources for both assessment methods
- undertaking both assessment methods on the same day

## Professional body recognition

Professional body recognition is not relevant to this occupational apprenticeship.

## Mapping of knowledge, skills and behaviours (KSBs)

### Assessment method 1: Observation with questioning

Knowledge
<p><b>K1:</b> Core - Health and safety: Health &amp; Safety at Work Act 1974, approved codes of practice and industry guidance for the stone industry, reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), personal protective equipment (PPE), manual handling, Control of Substances Hazardous to Health (COSHH), Provision and Use of Work Equipment Regulations (PUWER), and how they must be applied in the workplace. Risk assessments and dynamic risk assessment, manual handling and working at height.</p>
<p><b>K2:</b> Core - Stonemasonry tools, components and equipment appropriate to the required methods of work; understanding of how to safely use and maintenance tools/equipment to achieve the required performance and finish quality; Pre/Post-use checks and how to apply safeguards when using and maintaining stonemasonry tools, components and equipment.</p>
<p><b>K4:</b> Core - Movement of materials and movement/storage of stone and the problems/damage that can occur and avoidance methods.</p>
<p><b>K6:</b> Core - Methods of preparing surfaces to receive enrichments; methods of removing deteriorated and/or inappropriate materials; how to mix mortars and adhesives to agreed specification; the properties and applications of mortars and sand renders, adhesives, grouts, substrates, screeds (including self-levelling compounds), resins, quick lime, putty lime, hydraulic lime and lime washes.</p>
<p><b>K11:</b> Core - Other workshop or on-site functions that masons interact with, for example surveyors, designers, engineers; their purpose and inter-dependencies; Internal and external customers.</p>

<b>K14:</b> Banker Stonemason - The need for different components and the different types of moulds for natural stone which can be used to assist in their production.
<b>K18:</b> Interior Stone Fixer/Exterior Stone Fixer - Methods of finishing and protecting stone fixings/components.
<b>K19:</b> Exterior Stone Fixer - Methods of installing load bearing support and restraint systems, insulation (membranes and fire stops), cavity trays and damp proof membranes (DPM); how to waterproof and protect existing external surfaces.
<b>K22:</b> Memorial Stonemason - The importance of checking and recording ground and surface conditions; how to excavate area safely; how to lay foundations and install memorial stones & grave surrounds.
<b>K26:</b> Stone Facade Preservation - Methods of restoring façades and joints on flat, textured and moulded natural stone and on burnt clay, art stone and concrete.
<b>K27:</b> Heritage Stonemason - Photographic, written or digital record requirements in Heritage conservation projects prior to any work being carried out.
<b>K28:</b> Heritage Stonemason - Methods and tool selection for drilling and cutting stone backgrounds to receive fixings sympathetic to the existing condition of heritage masonry; how to form openings which conform to the requirements for heritage planning and buildings regulations.

Skills
<b>S1</b> Core - Carry out safe stonemasonry working practices, comply with health, safety and welfare legislation, conduct risk assessments; Report any workplace hazards, incidents, near misses, accidents or emergencies.
<b>S2</b> Core - Apply all safeguards and complete pre-use checks when using tools.
<b>S3.1</b> Core - Select and use the appropriate tools, components and equipment
<b>S4</b> Core - Plan the sequence of stonemasonry work required; Ensure work is completed safely within the allocated time and budget and report any situations which affect the work schedule.
<b>S5</b> Core - Select the required type and quantity of materials, move, handle and store safely.
<b>S6</b> Banker Stonemason - Measure, mark out, cut and finish standard templates or moulds.
<b>S7</b> Banker Stonemason - Produce true and square natural stone components.
<b>S8</b> Core - Set out and work stone to receive enrichments such as flat, moulded, straight and curved, internal and external mitres, stop ends and returned ends.
<b>S10</b> Core - Position and secure the stones in the required locations and identify bedding planes to suit the use of the stone component; When securing stone, ensure correct measurement, marking out, shape, level, fit, finish and position.

<b>S13</b> Core - Clean and tidy work area when work is finished; Store, transport and dispose of masonry waste; Reduce, reuse or recycle waste produced; Use work practices and resources which will contribute to zero/low carbon outcomes
<b>S15</b> Core - Ensure the products are the right size and fit to meet the design specification.
<b>S16</b> Banker Stonemason - Produce basic section bed and face moulds for natural stone components.
<b>S18</b> Interior Stone Fixer - Check and prepare existing internal surfaces to receive stonework; apply pre-sealants, water and solvent based final sealants and protection.
<b>S19</b> Interior Stone Fixer - Mix and apply mortar and sand renders, adhesives and grouts, substrates and screeds (including self-levelling); install thermal, movement and expansion joints.
<b>S21</b> Interior Stone Fixer/Exterior Stone Fixer - Grout, seal, clean, secure and finish stonework; bed, joint and point natural stone flooring, match finishes where possible and fix accessories (e.g. wire restraint fixings, channels) to wall slabs.
<b>S22</b> Exterior Stone Fixer - Prepare backgrounds for load bearing support and restraint systems, insulation (e.g. membranes and fire stops), cavity trays and damp proof membranes (DPM); apply waterproof sealants to background surfaces; install and remove mechanical fixings, shims and spacers.
<b>S24</b> Memorial Stonemason/Stone Facade Preservation - Prepare and mix lime mortars, hydraulic and non-hydraulic limes, lime mortars with additives or lime mortars with fibres (natural or synthetic) as appropriate.
<b>S25</b> Memorial Stonemason - Install and secure memorial stones, ensuring that ground and surface conditions are checked and recorded, area is excavated and foundations are laid.
<b>S27</b> Stone Facade Preservation - Dismantle facade surfaces to allow for safe and effective cleaning and preservation; brush, use jets and sprays to clean facades; effectively clean flat, textured & moulded stone and art stone using chemical and nonchemical methods; effectively clean non-masonry surfaces e.g. burnt clay, cast stone, metal, plastic, plastic-coated materials, wood, glass by chemical and non-chemical methods.
<b>S29</b> Heritage Stonemason - Collect records using photographic, written or digital collection methods prior to any work being carried out.
<b>S30</b> Heritage Stonemason - Drill and cut stone backgrounds to receive fixings sympathetic to the existing condition of heritage masonry; safely form openings which conform to the requirements for heritage planning and buildings regulations.
<b>S31</b> Heritage Stonemason - Apply conservation techniques to maintain heritage and archaeological accuracy, using heritage techniques and procedures where appropriate, with minimum intervention and minimum reversible alterations.

## Behaviours

<b>B1:</b> Core - Prioritises health, safety and environment-, for example, always ensuring the correct PPE is worn for the task being undertaken.
<b>B4:</b> Core - Applies logical thinking, for example, uses clear and valid reasoning when making decisions related to undertaking the work instructions.
<b>B5:</b> Core - Works effectively, for example, undertakes work in a reliable, tidy and productive manner.
<b>B6:</b> Core - Effective time management, for example uses their time effectively to complete work to schedule and always arrives at, and ready to work on time.

## Assessment method 2: Professional discussion underpinned by a portfolio of evidence

Knowledge
<b>K3:</b> Core - The overall program requirements, including procedures and resources available, sequencing of work to be completed and estimating timescales for work; how to
maintain workflow documentation and when to report any circumstances which may affect the work program.
<b>K5:</b> Banker Stonemason/Heritage Stonemason - Understand evidence of existing masonry to enable production of replacement components; templates and mould production for use in natural stone component manufacture; methods of obtaining true and square surfaces, stopped ends and curved mouldings with understanding of mould shape consistency; different stone types and the differing properties of the stone to be used e.g. limestone, sandstone, granite, marble, slate.
<b>K7:</b> Core - Methods of erecting and dismantling shores, struts, props and supports to structures, whilst maintaining historical integrity; tooling surfaces to the required finish to match existing masonry; understand bedding plane position to suit the use of the stone component; positioning and securing stones in the required location.
<b>K8:</b> Banker Stonemason/Heritage Stonemason - Recognition and reporting of sensitive areas, endangered/protected flora and fauna, salvageable materials/components; how to source sustainable and ethically sourced stone; methods of recognised conservation techniques .
<b>K9:</b> Core - Interpreting the organisational and manufacturers' quality standards, how to check stone for faults to ensure work conforms to the customer's expectations; how to record and report any variations in expected quality and how to implement any necessary corrective action.
<b>K10:</b> Core - Environmental considerations in accordance with the Environmental Protection Act: safe disposal of waste, minimising waste (re-use and re-cycle), waste contractors permit, energy efficiency, how to contribute to zero/low carbon outcomes.

<b>K12:</b> Core - Relevant Building regulations and codes of practice.
<b>K13:</b> Core - Communication techniques; verbal, written and digital; use industry terminology.
<b>K15:</b> Banker Stonemason/Stone Facade Preservation - When and how to use bespoke natural stone components and how to accurately shape and prepare them.
<b>K16:</b> Interior Stone Fixer - The faults to look for and checks to be carried out on existing internal surfaces to receive stonework; how to clean, prepare and select and apply sealants and protection to surfaces prior to any installation.
<b>K17:</b> Interior Stone Fixer/Exterior Stone Fixer - Methods of preparing surfaces to receive stone fixings/components.
<b>K20:</b> Exterior Stone Fixer - Methods of installing, supporting and finishing external cladding, suitable to the location, environment and in-line with job specification.
<b>K21:</b> Core - Different types of lime mortars; application methods.
<b>K23:</b> Memorial Stonemason - The protocols relating to the bereaved and the public; specific requirements for sites of special interest, consecrated and non-consecrated ground, historical and environmental significance.
<b>K24:</b> Memorial Stonemason - Methods of adding details, lettering & ornamentation to stone; finishing techniques and hand polishing.
<b>K25:</b> Stone Facade Preservation - Surface condition of facades recording requirements (how and why) prior to commencing work; methods of chemical and non-chemical cleaning processes.
<b>K29:</b> Heritage Stonemason - Recognised conservation techniques to maintain heritage and archaeological integrity; the principles of minimum intervention and reversible alterations; how to identify stone type within existing building and how to refer for analysis as appropriate; the importance of the historical context of the project.
<b>K30:</b> Heritage Stonemason - Methods of matching masonry components with existing structures, straight walling returns and rakes for new build and for buildings that are not straight and true; How incorporate pre-prepared conservation masonry components, e.g. quoin, jamb, cill stones and coping; How to generate designs/lettering using computer equipment; The principles of selecting and applying hand cut ornamentation.

## Skills

<b>S3.2</b> Core - Repair and maintain tools, components and equipment.
<b>S9</b> Banker Stonemason - Produce enrichments, for example, repeated enrichment (egg and dart, or tongue and dart, or bead and reel), v-cut carving, high relief carving or low relief carving.
<b>S11</b> Banker Stonemason - Prepare, conserve, repair or refurbish existing stone masonry by replicating, removing, replacing or stabilising the existing structure; prepare mortars, joint finishing and applying surface finishes, all of which match existing masonry as close as possible or are in line with the conservation plan.

<b>S12</b> Core - Comply with specific organisational and manufacturer's quality standards as required by the job specification and report any variation in quality, implementing agreed corrective actions where required.
<b>S14</b> Core - Communicate with colleagues/customers; use industry terminology.
<b>S17</b> Banker Stonemason - Produce bespoke natural stone components, for example, shaped curved on plan, tracery, ramp and twist, spheres, entablature, ionic components or finials
<b>S20</b> Interior Stone Fixer - Form angles, reveals, cills and soffits, floor drainage and outlets; install membranes and lay natural stone flooring to regular and irregular surfaces, fix trims and movement joints including treads, risers and landings; fix internal stonework to vertical, horizontal and inclined wall and floor surfaces; fit internal treads, risers and work surfaces.
<b>S23</b> Exterior Stone Fixer - Install and fix external cladding with load-bearing support and restraint systems; repair or replace defective stone cladding as required; identify and mix mortars, resins and adhesives; identify and fix suitable reinforcements and fixings; form suitable joint finishes which are sympathetic to existing building.
<b>S26</b> Memorial Stonemason - Mark out, position, inscribe, ornament and finish details on memorial stones; produce and use templates for sandblasting; safely use sandblasting equipment to produce details, lettering and ornamentation; finish memorial work using gilding and hand polishing.
<b>S28</b> Stone Facade Preservation – Measure, mark out, cut, fit, mix, spread, dress, descale, point, position and secure when restoring façade surfaces; Restore in-situ units, façades and joints on flat, textured and moulded natural stone and on burnt clay, art stone and concrete.
<b>S32</b> Heritage Stonemason - Match new masonry components with existing structures and incorporate pre-prepared conservation masonry components; Finish by applying hand cut ornamentation or lettering where required.

## Behaviours

<b>B2:</b> Core - Professional, for example, develops good working relationships recognising dependencies, uses co-operative approaches to optimise workflow and productivity with limited supervision, shows respect for colleagues.
<b>B3:</b> Core - Takes responsibility, for example, completes own work to required quality standards and has eye for detail/accuracy.
<b>B7:</b> Core - Adjustable when required, for example adapts to changes to work instructions or variations in workplace contexts and environments.