Institute for Apprenticeships & Technical Education

End-point assessment plan for Fall Protection Technician apprenticeship standard

Apprenticeship standard reference number	Apprenticeship standard level	Integrated end-point assessment
ST0614	3	No

Contents

Introduction and overview

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

Full time apprentices will typically spend 12 months on-programme (before the gateway) working towards the occupational standard, with a minimum of 20% off-the-job training. All apprentices will spend a minimum of 12 months on-programme.

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

All pre-requisites for EPA assessment methods must also be complete and available for the assessor as necessary.

For level 3 apprenticeships and above apprentices without English and mathematics at level 2 must achieve level 2 prior to taking their EPA.

The EPA must be completed within an EPA period lasting typically 3 months, beginning when the apprentice has passed the EPA gateway.

The EPA consists of 2 discrete assessment methods.

The individual assessment methods will have the following grades:

Assessment method 1: Workplace Observation

· Pass
· Fail

Assessment method 2: Professional Interview

· Pass
· Fail
· Distinction

Assessment method 3: Knowledge Test

· Pass
· Fail
· Distinction

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

· Pass
· Fail
· Distinction

EPA summary table

On-programme (typically 12 months)	Training to develop the occupation standard's knowledge, skills and behaviours (KSBs).
End-point assessment gateway	• Employer is satisfied the apprentice is consistently working at, or above, the level of the occupational standard. • English/mathematics Level 2 Apprentice to submit: • Portfolio of evidence
End-point assessment (which will typically take 3 months)	Assessment Method 1: Workplace Observation With the following grades: · Fail · Pass Assessment Method 2: Professional Interview With the following grades: · Fail · Pass · Distinction Assessment Method 3: Knowledge Test With the following grades: · Fail · Pass · Distinction

Length of end-point assessment period

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

Order of assessment methods

The assessment methods can be delivered 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 to the employer's confirmation that the apprentice is working at or above the level in the occupational standard, the apprentice must have completed the following gateway requirements prior to beginning EPA:

> For level 3 apprenticeships and above apprentices without English and mathematics at level 2 must achieve level 2 prior to taking their EPA.
>
> 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 qualifications are an alternative to English qualifications for those for whom this is their primary language.

Portfolio of evidence requirements:

- 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 of evidence will typically contain 10 discrete pieces of evidence
- 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, for example workplace policies/procedures, records
    - drawings and/or specifications the apprentice has worked to
    - witness statements
    - annotated photographs of hardware installations
    - video clips (maximum typical duration 2 minutes per clip); the apprentice must be in view and identifiable

  This is not a definitive list; other evidence sources are possible.
- it should not include any methods of self-assessment
- any employer contributions should focus on direct observation of performance (for example witness statements) rather than opinions
- 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 of evidence must be submitted to the EPAO at the gateway

The portfolio is not directly assessed. It underpins the Professional Interview and therefore should not be marked by the EPAO. EPAOs should review the portfolio in preparation for the Professional Interview but are not required to provide feedback after this review of the portfolio.

Assessment methods

Assessment Method 1: Workplace Observation (This Method has 1 component.)

Overview

Apprentices must be observed by an independent assessor in a live workplace environment in which they will demonstrate the KSBs assigned to this assessment method. The end-point assessment organisation will arrange for the observation to take place, in consultation with the employer. Observations must be carried out over a total assessment time of 12 hours. The observation will typically be split across two consecutive working days with comfort breaks as necessary. The assessor has the discretion to increase the time of the observation by up to 10% to allow the apprentice to complete the last task that is part of this element of the EPA.

The independent assessor may conduct and observe one apprentice at a time during this assessment method.

The EPAO should take precautions to ensure any breaks are suitably controlled to preserve the integrity of the assessment.

Delivery

The following activities must be observed during the observation, that is an observation without these tasks would seriously hamper the opportunity for the apprentice to demonstrate occupational competence in the KSBs assigned to this assessment method.

- Apprentice to review all planned activities before work commences. Apprentice to review documentation including risk assessment, Agreed Induction Process, RAMS, permits, currency of own training certificates, installation specification, manufacturers information, layout drawings, equipment load lists, tool lists and associated PPE lists.
- Carry out dynamic risk assessment before work commences
- Install and set up a fall protection system
- Access and safely use working at height equipment to complete installation
- Interpret design specifications
- Undertake tool, equipment and materials checks
- Work within a team and communicate effectively at all times
- Final review of complete installation, site removed of all excess materials and equipment and undertakes sign off process.

KSBs observed must be documented by the independent assessor. The assessor must ask a minimum of 6 questions taken from the EPAO's question bank to clarify work undertaken or processes followed. The independent assessor will make all grading decisions.

Venue

Observations will be conducted in a live work environment. Venues must be selected in consultation between the EPAO and employer to ensure the prospect of sufficient coverage of KSBs.

Support material

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

Question bank

Outline of the assessment method's requirements

Marking materials

Assessment Method 2: Professional Interview (This Method has 1 component.)

Overview

This assessment will take the form of a professional interview, 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. It will involve the questions that will focus on analysis of given scenarios, coverage of prior learning or activity and problem solving. Apprentices may refer to and illustrate their answers with evidence from their portfolio of evidence, however the portfolio is not directly assessed.

The professional interview can take place in any of the following:

· a suitable venue selected by the EPAO (e.g. a training provider's premises)
· employer's premises

Delivery

The independent assessors will conduct and assess the professional interview.

The professional interview must last for 60 minutes and cover a minimum of 10 questions, with follow-up questions if required. The independent assessor has the discretion to increase the time of the professional interview by up to 10% to allow the apprentice to complete their last answer. Further time may be granted for apprentices with appropriate needs, in-line with the EPAO's reasonable adjustment policy.

During this method, the independent assessor must only use the EPAO's question bank.

The professional interview will be conducted as set out here:

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

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

The independent assessor will make all grading decisions.

Venue

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

Other relevant information

A question bank must be developed by EPAOs. The question bank must be of sufficient size to prevent predictability and it must be reviewed regularly (and at least once a year) to ensure that it, and its content, are fit for purpose. The questions relating to the underpinning knowledge, skills and behaviours, 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 interview and reaching consistent judgement.

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

- Outline of the assessment method's requirements
- Marking materials
- Question bank

Assessment Method 3: Knowledge Test

Test Format

The test can be:

· computer based
· paper based

It will consist of 30 questions. These questions will consist of closed response questions (e.g. multiple-choice questions) and be based upon the KSBs mapped to this method

Test administration

Apprentices must have 60 minutes to complete the test.

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

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

The EPAO is responsible for ensuring the security of testing they administer to ensure the test remains valid and reliable (this includes any arrangements made using online tools). The EPAO is responsible for verifying the validity of the identity of the person taking the test.

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

Marking

Tests must be marked by independent assessors or markers employed by the EPAO following a marking guide produced by the EPAO. Alternatively, marking by computer is permissible where questions types allow this, to improve marking reliability.

Correct answers must be awarded 1 mark. Any incorrect or missing answers must be assigned 0 marks.

Question and resources development

Questions must be written by EPAOs and must be relevant to the occupation and employer settings. It is recommended that this be done in consultation with employers of this occupation. EPAOs should also maintain the security and confidentiality of their questions when consulting employers. EPAOs must develop a test specification and question bank of sufficient size to prevent predictability and

review them regularly (and at least once a year) to ensure they, and the questions they contain, are fit for purpose.

Required supporting material

As a minimum EPAOs will produce the following material to support this method:

- A test specification
- question bank
- sample tests and mark schemes
- live tests and mark schemes
- analysis reports which show areas of weakness for completed tests/exams and an invigilation policy.

Reasonable adjustments

The EPAO must have in place clear and fair arrangements for making reasonable adjustments 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.

Grading

Assessment method 1: Workplace Observation

KSBs	Fail	Pass (meets all criteria)
K2 K7 K10 **S1 S2 S3 S4 S5 S7 S8 S9 S10** **B2**	Does not meet the pass criteria	Interprets design specifications and associated documentation, inspecting the tools, equipment and materials to ensure they are appropriate for the design and in the correct quantities. (K2, S1, S4, S7, B2) Uses access and work at height equipment safely and in accordance with manufacturers' instructions and relevant regulations. (K7, S3, S9) Installs a fall protection system including a structural fix, top fix cable system and a handrail in accordance with the design specification and product instructions. Completes installation with the assistance of the team, communicating effectively throughout. (S2, S8) Carries out dynamic risk assessments before and throughout the installation. (S10) Uses digital technologies appropriate to the installation to keep accurate records (K10, S5, S1)

Assessment method 2: Professional Interview

KSBs	Fail	Pass (meets all criteria)	Distinction (meets all pass plus all distinction criteria)
K3 **K6 K8** **S6** **B1 B3** **B4 B5**	Does not meet the pass criteria	Explains how they have set a positive health and safety example in the workplace. (B1) Describes the different types, and associated limitations, of height safety access techniques and access equipment. Describes licensing and permit requirements and the consequences of not keeping these up to date. (K3) Explains the principles of load absorption and the differences in installation techniques for a range of structural fixings including the consequences of incorrect fixings. (K6, K8) Demonstrates an understanding of work methods and the importance of planning in order to avoid potential issues. (S6) Explains how they have contributed to organisational goals through meeting personal and organisational targets; and taken responsibility for own continuous development, keeping up-to-date with changes in legislation, regulations and/or guidelines ensuring own competence is maintained whilst recognising limits of own competence. (B3, B4, B5)	Explains how their personal actions have been used to promote key requirements of health and safety and other relevant legislation in different contexts and how they ensure they are applying current requirements. (B1) Explains how they have effectively applied the principles of working at height in different contexts. (K3) Explains how key engineering principles, including materials sciences have affected their decision making when installing fall protection systems in different contexts. (K6) Explains the principles of load absorption and how these have been applied with different installation techniques in their work in different contexts. (K8)

Assessment method 3: Knowledge Test

KSBs	Fail	Pass	Distinction
K1 K4 K5 K9 K11	21 correct answers or fewer	22 to 26 correct answers	27 correct answers or more

Overall EPA grading

All EPA methods must be passed as a minimum for the EPA to be passed overall. In order to achieve a distinction, apprentices must achieve a distinction in the Professional Interview and Knowledge Test and a pass in the Workplace Observation.

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 the individual assessment method that was failed.

Any assessment method re-sit or re-take must be taken during the maximum EPA period, otherwise the entire EPA must be taken again, unless in the opinion of the EPAO exceptional circumstances apply outside the control of the apprentice or their employer.

Re-sits and re-takes are not offered to apprentices wishing to move from pass to merit/distinction or merit 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	As a minimum, apprentices should: • participate in development opportunities to improve their knowledge skills and behaviours as outlined in the standard • meet all gateway requirements when advised by the employer • understand the purpose and importance of EPA and undertake EPA
Employer	As a minimum, employers should: • support the apprentice to achieve the KSBs outlined in the standard to their best ability • determines when the apprentice is working at or above the level outlined in the standard and is ready for EPA • select the EPAO • confirm all EPA gateway requirements have been met • confirm arrangements with EPAO for the EPA (who, when, where) in a timely manner • ensure apprentice is well prepared for the EPA
Team Members	As a minimum, any team members will: • be occupationally competent, to at least the level of the Apprenticeship Standard • be briefed prior to the assessment by the independent assessor • adhere to confidentiality about all aspects of the assessment and the brief they have been provided with • act as a team member for only those elements of the practical assessment which can only be completed as part of a team and where it is normal practice to do so • not direct any activity which the apprentice would normally have responsibility for and must take instruction from the apprentice where appropriate • not ask questions that indicate how to complete the practical assessment successfully • not provide guidance or influence the assessment outcome in any way • declare any conflict of interest to the EPAO • contribute to a written statement to confirm that all of the assessed task is attributable to the apprentice
EPAO	As a minimum, EPAOs should: • understand the occupational role • appoint administrators/invigilators and markers to administer/invigilate and mark the EPA • provide training and CPD to the independent assessors they employ to undertake the EPA

	• provide adequate information, advice and guidance documentation to enable apprentices, employers and providers to prepare for the EPA • deliver the end-point assessment outlined in this EPA plan in a timely manner • prepare and provide all required material and resources required for delivery of the EPA in-line with best practices • use appropriate assessment recording documentation to ensure a clear and auditable mechanism for providing assessment decision feedback to the apprentice • have no direct connection with the apprentice, their employer or training provider i.e. there must be no conflict of interest • maintain robust internal quality assurance (IQA) procedures and processes, and conducts these on a regular basis • conform to the requirements of the nominated external quality assurance body • organise standardisation events and activities in accordance with this plan's IQA section • organise and conduct moderation of independent assessors' marking in accordance with this plan • have, and operate, an appeals process • arrange for certification with the relevant training provider
Independent assessor	As a minimum an independent assessor should: • be independent of the apprentice, their employer and training provider(s) i.e. there must be no conflict of interest • hold or be working towards an independent assessor qualification e.g. A1 and have had training from their EPAO in terms of good assessment practice, operating the assessment tools and grading • have the capability to assess the apprentice at this level • attend the required number of EPAOs standardisation and training events per year (as defined in the IQA section) And either: • be a member of the BSIF (HSG) or WAHSA; Or • participate in BSI PH/5 or B514 Committees of CEN/TC160 or CEN/TC53 Committees
Training provider	As a minimum the training provider should: • work with the employer to ensure that the apprentice is given the opportunities to develop the KSBs outlined in the 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 EPA organisations must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPA organisations for this EPA must:

- appoint independent assessors who have knowledge of the following occupational areas:
    - Fall protection in a supervisory capacity (at least a level above that of the apprentice)
- 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 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

Affordability

Affordability of the EPA will be aided by using at least some of the following practices:

· online testing
· using a live workplace environment

Professional body recognition

Professional body recognition is not relevant to this occupational apprenticeship.

Mapping of knowledge, skills and behaviours (KSBs)

Assessment method 1: Observation

Knowledge
K2 Maintenance of tools and equipment including: PPE, harness and roped access, first aid kit, inspection techniques, recalibration regimes, inspection records and additional checks in poor weather.
K7 The safe use and limitations of access equipment.
K10 Digital technologies for the transfer and recording of information, BIM, QA systems.

Skills
S1 Undertake standard tool and equipment checks: Identify and inspect the equipment in accordance with the relevant regulations, report any irregularity, understand PAT testing and recalibration equipment's, inspection of PPE, inspection of harnesses and roped access equipment, inspection of hand and electrical tools, ladder inspection, vehicle inspection – and adverse weather precautions, first aid kit inspection. Keep accurate records.
S2 Install and set up fall protection systems (structural fix, top fix cable system and handrail), ensure the correct materials and equipment to carry out the installation is present in strict accordance with the design, specification and product instructions.
S3 Use access and work at height equipment in accordance with training and employer's/manufacturer's instructions and relevant regulations: MEWP, safety ladders, horizontal and vertical systems.
S4 Interpret design specifications: accurately read engineering drawings, details, specifications, quantities; verify that goods on site match the design, verify that the conditions, materials and structure on site match the design, identyfing omissions.
S5 Use digital information systems to communicate and record information in accordance with QA systems and specific client requirements.
S7 Measure quantities and stocktake, demonstrating accuracy in on site conditions.
S8 Effective communication and team work, be alert and able to alert others to differing site conditions or potential hazards. Escalate issues appropriately.
S9 Safe access: Safely select, and utilize the correct equipment for the task and onsite conditions (S5)
S10 Carry out dynamic risk assessments.

Behaviours
B2 Apply rigor and attention to detail in all tasks.

Assessment method 2: Professional Interview

Knowledge
K3 The principles of working at height and the different types of height safety (roped access techniques, horizontal and vertical track systems) and access equipment (MEWP, tower scaffold, ladder) including techniques and the limitations of each, permits to work, licencing and storage requirements.
K6 Strutural fixings and installation techniques including: interpreting drawings, setting out, the range of fall protection systems and components, how to deal with varying site conditions, functional tests for installed equipment and completion of mandatory records. System and component identification consequences of utilisng wrong, mismatching or untested.
K8 Principles of loads absorption, physiology of arresting a fall, harness fatigue & fall clearance differing, consequences of differing product applications.

Skills
S6 Understand work methods and plan ahead to anticipate potential issues.

Behaviours
B1 Promote a positive health, safety & environmental culture through situational awareness and personal example.
B3 Take responsibility for own judgments, actions and standards of work, be aware of the limits of their own competence, take initiative for ensuring their own competence is maintained and updated.
B4 Determined to succeed, consistently achieve personal and organisational targets, act to resolve day to day issues, receptive to new ideas and respond well to day-to day challenges.
B5 Willing to learn and continually develop, keeping up-to-date with current legislative and industry regulations and guidelines.

Assessment method 3: Knowledge Test

Knowledge
K1 Health and safety legislation, requirements and procedures including: Working at Height Regulations, LOLER, COSHH.PAT testing, asbestos awareness, Health and Safety at Work Act, The Provision and Use of Work Equipment Regulations, Measuring Instruments Regulations, Personal Protective Equipment at Work Regulations, Construction Design Management, relevant current BS/EN standards, manual handling, lone working procedure and precautions.
K4 The range of structural fixings typically used in fall protection (masonry fixings mechanical & chemical, concrete fixings mechanical & chemical, roof sheet fixings, rivet and toggle, steelwork fixings, bolts/ clamps and hollow fix, tension in fixings – required torque, use of sprung washers and locking nuts). The limitations and application of these fixings, bimetallic corrosion, installation

techniques, how to deal with varying site conditions, functional tests for installed equipment and completion of mandatory records.
K5 Engineering principles including: setting out and surveying, forces, mass, weights units of measure and the principle of lever arms, principles of loads absorption, physiology of arresting a fall, identification of building materials including accurate identification of masonry construction, identification of building structure, bimetallic corrosion. Materials sciences including an understanding of why specifications are important and a basic understanding of the characteristics of failure.
K9 Legal liabilities, following manufacturer's specifications and installation instruction. The importance of record keeping.
K11 The range of working environments including construction, industry, retail, residential, energy and infrastructure; the characteristics and hazards associated with each. Working at height, on the ground and in confined spaces, what constitutes a confined space, the training permits required to enter one and when to apply the principles of working at height.