

End-point assessment plan for arboriculturist apprenticeship standard

Apprenticeship standard number	Apprenticeship standard level	Integrated end-point assessment
ST0921	4	No

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Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the arboriculturist apprenticeship standard. It explains how EPA for this apprenticeship must operate.

This document provides the EPA design requirements for end-point assessment organisations (EPAOs) for this apprenticeship standard. It will also be useful for apprentices undertaking this apprenticeship, their employers and training providers.

EPA must be conducted by an EPAO approved to deliver EPA for this apprenticeship standard. Each employer should select an approved EPAO from the Education & Skills Funding Agency's Register of end-point assessment organisations (RoEPAO).

Full-time apprentices will typically spend 30 months on-programme (before the gateway) working towards this 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.

Before starting EPA, an apprentice must meet the gateway requirements. For this apprenticeship they are:

- the employer must be content that the apprentice is working at or above the occupational standard
- apprentices must have achieved English and mathematics at Level 2¹

The EPAO must confirm that all required gateway evidence has been provided and accepted as meeting the gateway requirements. The EPAO is responsible for confirming gateway eligibility. Once this has been confirmed, the EPA period starts.

This EPA should then be completed within an EPA period lasting typically for 4 months.

This EPA consists of 4 discrete assessment methods.

It will be possible to achieve the following grades in each end-point assessment method:

Assessment method 1: Practical demonstration with questions

- fail
- pass
- distinction

Assessment method 2: Short answer test

- fail
- pass

¹ 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. British Sign Language (BSL) qualifications are an alternative to English qualifications for those who have BSL as their primary language

Assessment method 3: Multiple-choice test

- fail
- pass

Assessment method 4: Professional discussion underpinned by a portfolio

- fail
- pass
- distinction

Performance in the end-point assessment methods will determine the overall apprenticeship standard grade of:

- fail
- pass
- distinction

EPA summary table

On-programme (typically 30 months)	<p>Training to develop the knowledge, skills and behaviours (KSBs) of the occupational standard.</p> <p>Training towards mandated qualifications, if required.</p> <p>Training towards English and mathematics Level 1 and 2, if required.</p> <p>Compiling a portfolio of evidence.</p>
End-point assessment gateway	<p>The employer must be content that the apprentice is working at or above the level of the occupational standard.</p> <p>Apprentices must have achieved English and mathematics at Level 2.</p> <p>For the practical demonstration with questions:</p> <ul style="list-style-type: none"> • a written declaration from the apprentice and employer must be submitted to the EPAO confirming the apprentice has no prior knowledge of the trees used in the assessment. <p>For the professional discussion apprentices must submit:</p> <ul style="list-style-type: none"> • a portfolio of evidence
End-point assessment (typically 4 months)	<p>End-point assessment method 1: Practical demonstration with questions, graded:</p> <ul style="list-style-type: none"> • fail • pass • distinction <p>End-point assessment method 2: Short answer test, graded:</p> <ul style="list-style-type: none"> • fail • pass <p>End-point assessment method 3: Multiple-choice test, graded:</p> <ul style="list-style-type: none"> • fail • pass <p>End-point assessment method 4: Professional discussion underpinned by a portfolio, graded:</p>

	<ul style="list-style-type: none">• fail• pass• distinction Overall EPA/apprenticeship graded <ul style="list-style-type: none">• fail• pass• distinction
Professional recognition	Aligns with recognition by the Arboricultural Association as a Technician Member.

Length of EPA period

The EPA will be completed within an EPA period lasting typically for 4 months, starting when the EPAO has confirmed that all gateway requirements have been met.

Order of end-point assessment methods

The assessment methods can be delivered in any order.

The result of one assessment method does not need to be known before starting the next.

EPA gateway

The apprentice should only enter the gateway once the employer is content that the apprentice is working at or above the occupational standard. 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.

The EPAO determines when all gateway requirements have been met, and the EPA period will only start once the EPAO has confirmed this.

In addition to the employer's confirmation that the apprentice is working at or above the level of the occupational standard, the apprentice must have completed the following gateway requirements prior to starting EPA:

- achieved English and mathematics at Level 2 (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. British Sign Language (BSL) qualifications are an alternative to English qualifications for those who have BSL as their primary language)

For the professional discussion underpinned by portfolio, the apprentice will be required to submit:

- a portfolio of evidence

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 underpinned by a portfolio
- the portfolio of evidence will typically contain 15 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 and or procedures, records
 - witness statements
 - annotated photographs
 - video clips (maximum total duration 12 minutes); the apprentice must be in view and identifiable

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

- it should not include reflective accounts or 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 of evidence is not directly assessed. The professional discussion is underpinned by a portfolio and therefore should not be marked by the EPAO. EPAOs should review the portfolio of evidence in preparation for the professional discussion underpinned by a portfolio but are not required to provide feedback after this review of the portfolio.

End-point assessment methods

The apprentice will be assessed against the KSBs assigned to the assessment methods outlined below, as shown in the mapping section of this EPA plan.

End-point assessment method 1: Practical demonstration with questions

Overview

This assessment method has one component.

A practical demonstration with questions involves an independent assessor observing an apprentice undertaking a series of set tasks in a simulated environment and asking questions. The simulated environment must closely relate to the apprentice's natural working environment.

The independent assessor will ask questions in relation to KSBs that have not been observed although these should be kept to a minimum.

The rationale for this assessment method is:

- a significant part of an arboriculturist's work entails inspecting trees and making recommendations
- it enables the apprentice to apply their skills and knowledge of assessment tools and methodologies to inspect trees that they have no prior knowledge of
- it is a holistic assessment method
- work sites often have many similar trees (that are the same species or age if planted at the same time) and a practical demonstration will test the breadth of knowledge required to demonstrate competence

Delivery

The practical demonstration with questions must take 4 hours in total.

The apprentice will have 3 hours to complete the assessed tasks. The independent assessor will have 1 hour to brief the apprentice during which the apprentice will not be assessed.

The practical demonstration with questions may not be split, other than to allow comfort breaks as necessary or to allow the apprentice to move from one location to another as required. Where breaks occur, they will not count towards the total assessment time.

EPAOs must manage invigilation of apprentices during breaks to maintain security of the assessment in line with their malpractice policy.

The independent assessor has the discretion to increase the time of the practical demonstration with questions by up to 10% to allow the apprentice to complete a task or respond to a question.

The independent assessor may observe only one apprentice during this assessment method to ensure quality and rigour.

Apprentices must be provided with information on the tasks they must complete, including the timescales they will be working to before the start of the practical demonstration.

The following activities must be observed during the practical demonstration, as a practical demonstration without these activities would seriously hamper the opportunity for the apprentice to demonstrate occupational competence against the KSBs assigned to this assessment method:

- the apprentice must complete a systematic tree inspection, leading to recommendations, of 6 trees
- the apprentice must give a verbal report of their tree inspection findings and recommendations to the independent assessor
- the apprentice should not have inspected the trees used for the assessment previously during their apprenticeship

It is the trees and not necessarily the site that should be unknown. However, if the apprentice is very familiar with a site, the chances they will know the trees becomes more likely therefore a written declaration stating the apprentice has had no prior knowledge of the trees must be signed by both the apprentice and employer and submitted to the EPAO to inform the independent assessor.

The practical demonstration should be conducted in the following way to take account of the occupational context:

- the 4-hour total assessment time should be allocated as follows:
 - 1 hour in total for the independent assessor to brief the apprentice
 - 2 hours for the apprentice to complete their tree inspections
 - 1 hour for the apprentice to give their verbal report and for the independent assessor to ask follow-up questions
- the 6 trees must be selected by the independent assessor and should include a variety of species, ages and exhibit a sufficient range of different considerations

Broadleaf and coniferous species must be included with no more than two conifers.

- the independent assessor must assign the trees to 3 different simulated scenarios to outline a wider context for the apprentice to complete tree inspections and recommendations
- one of the simulated scenarios must include a planning context
- the independent assessor must brief the apprentice on each assigned scenario, which may be given in segments prior to each scenario being applied by the apprentice or in full prior to the assessment commencing, at the preference of the apprentice
- the EPAO must provide independent assessors with a bank of simulated scenarios for the independent assessor to choose from which can be adapted to the assessment site

Examples could include widening a carriageway, creating a new playground, installing a footpath, renewing a footpath, installing broadband network (or utilities), adding a building extension or new houses.

The independent assessor must be unobtrusive whilst conducting the practical demonstration.

Questions must be asked. The purpose of the questioning is to allow the apprentice to demonstrate skills and knowledge not naturally occurring within the practical demonstration. It also should test depth and application of knowledge and give the apprentice the opportunity to justify their recommendations within the KSBs and grading descriptors allocated to this assessment method.

The independent assessor must ask a minimum of 6 questions.

They may ask follow-up questions where clarification is required.

KSBs which the apprentice did not have the opportunity to demonstrate during the practical demonstration can instead be covered by questioning, although these should be kept to a minimum.

The evidence observed and responses to questions will be assessed holistically.

The time for questions asked during the practical demonstration is included in the overall assessment time.

The independent assessor has the discretion to increase the duration by up to 10% to allow the apprentice to respond to a question. The independent assessor must use the full time available for questioning to allow the apprentice the opportunity to evidence occupational competence at the highest level available.

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

The independent assessor will make all grading decisions.

Assessment location

Practical demonstrations take place in a simulated environment (the site) under controlled conditions and must meet the following criteria:

- the site must have a range of trees with a variety of species, ages and exhibit a sufficient range of different considerations
- the apprentice should have no prior knowledge of the trees used for the assessment
- the site must have a sufficient number of trees
- the site may be located in a college, public garden, private estate or park
- the site should not be the apprentice's place of work or learning environment as they are more likely to have prior knowledge of the trees

The EPAO is responsible, in liaison with the employer and training provider, for identifying and risk assessing suitable sites, ensuring they provide the necessary facilities and equipment for the assessment and the required access permissions are gained.

Question and resource development

EPAOs will produce specifications to outline in detail how the practical demonstration will operate, what it will cover and what should be assessed. It is recommended that this be done in consultation with employers. EPAOs should put in place measures and procedures to maintain the security and confidentiality of their specifications if employers are consulted. Specifications must be standardised by the EPAO.

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. 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.

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

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

- independent assessor training materials
- assessment specifications
- grading guidance
- a question bank
- assessment recording documentation
- bank of simulated scenarios giving context for tree inspections and recommendations
- risk assessment(s) for the practical assessment site

End-point assessment method 2: Short answer questions

Overview

This assessment method has one component.

A short answer test is a controlled assessment which consists of a series of questions in which apprentices are asked to provide a written response.

The rationale for this assessment method is:

- it allows the apprentice to be assessed against skills and knowledge which may not naturally occur during the other assessment methods
- it allows for the apprentice to demonstrate knowledge and skill which would naturally be presented in a written format

This method will assess the following subject areas:

- legislation, regulation and best practice
- conflict between trees and the built environment
- woodland management
- tree management plans and strategies
- resilience and biosecurity

Delivery

Test format and administration

The test can be:

- computer based
- paper based

The short answer test will consist of 12 questions. Apprentices will have 75 minutes to complete the test, with each answer expected to contain an average of 25-50 words.

The short answer test will be closed book which means the apprentice cannot refer to reference books or materials.

The questions must be varied, to avoid the exam becoming too predictable, yet allow assessment of the relevant KSBs.

The apprentice will be given 10 days' notice from the EPAO of the test date to provide time to prepare.

Apprentices must take the short answer test in a suitably controlled environment that is a quiet space, free from 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 exam can be taken online. 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 consider the setting and security required in administering the test.

The EPAO is responsible for ensuring the security of testing they administer to ensure the test remains valid and reliable (this includes any arrangement 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.

Assessment

The short answer test must be marked by arboricultural specialist independent assessors employed by the EPAO following a marking guide produced by the EPAO.

In the short answer test, apprentices must demonstrate meeting the pass requirements detailed within the grading section of this EPA plan.

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 an 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.

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

Required supporting material

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

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

The following equipment is permitted during the test:

- writing materials if paper based
- calculator

End-point assessment method 3: Multiple-choice test

Overview

This assessment method has one component.

A multiple-choice test is a controlled assessment which consists of a series of questions in which apprentices are asked to provide a response.

The rationale for this assessment method is:

- this tests the apprentice's knowledge in a robust and cost-effective method where it would be difficult in the other assessment methods
- it allows testing of skills that might be difficult in the practical such as identification of trees at different times of year or pests and pathogens that are reliant on these being present on site

This method will assess the following subject areas:

- tree lifecycles
- tree identification
- tree pests and diseases
- bracing
- advanced diagnostics
- legislation

Delivery

Test format and administration

The test can be:

- computer based
- paper based

The multiple-choice test will consist of 30 questions. Apprentices will have 60 minutes to complete the test.

It will be closed book which means the apprentice cannot refer to reference books or materials.

The following equipment is permitted during the test:

- writing materials if paper based
- calculator

The multiple-choice questions will have 4 options of which one will be correct. The questions must be varied, to avoid the test becoming too predictable, yet allow assessment of the relevant KSBs.

The apprentice will be given 10 days' notice from the EPAO of the test date to provide time to prepare.

Apprentices must take the test in a suitably controlled environment that is a quiet space, free from 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 is to be carried out. This will include specifying the most appropriate ratio of apprentices to invigilators to best consider the setting and security required in administering the test.

The EPAO is responsible for ensuring the security of testing they administer to ensure the test remains valid and reliable (this includes any arrangement 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.

Assessment

The multiple-choice test 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 question types allow this.

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

Grading boundaries

Grade	Minimum mark	Maximum mark
Fail	0	23
Pass	24	30

Question and resources development

Questions must be written by EPAOs and must be relevant to the occupation, employer settings and assess KSBs mapped to this assessment method. 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.

The test questions must be varied yet assess the relevant KSBs.

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

Required supporting material

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

- test specification

- a question bank
- sample tests and mark schemes
- live tests and mark schemes
- analysis reports which show areas of weakness for completed tests and an invigilation policy
- assessment recording documentation

End-point assessment method 4: Professional discussion underpinned by a portfolio

Overview

This assessment method has one component.

A professional discussion is a two-way discussion which involves both the independent assessor and the apprentice actively listening and participating in a formal conversation. It gives the apprentice the opportunity to make detailed and proactive contributions to confirm their competency across the KSBs mapped to this method.

The rationale for this assessment method is:

- it allows the apprentice to be assessed against skills and behaviours which may not naturally occur during the other assessment methods
- it enables the apprentice to demonstrate the application of skills and behaviours as well as knowledge
- it allows scope for the apprentice to demonstrate the depth and breadth of KSBs, .

Delivery

This assessment will take the form of a professional discussion underpinned by a portfolio which must be appropriately structured to draw out the best of the apprentice's competence and cover the KSBs assigned to this assessment method. It will involve questions that will focus on management, communication, tree science and project management.

The independent assessors will conduct and assess the professional discussion.

The professional discussion must last for 75 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 use the EPAO's question bank as a source for questioning and are expected to use their professional judgment to tailor those questions appropriately. Independent assessors may ask further questions for clarification purposes and to allow the apprentice the opportunity to cover the KSBs mapped to this assessment method.

The themes that must be covered are:

- tree valuation and systems

- soils
- communication
- customer service
- meetings
- relationships and negotiation
- manage self
- sales and marketing
- health and safety
- people management and safeguarding
- project management
- procurement / tenders and contracts
- technology
- research
- benefits of trees
- planting

The professional discussion underpinned by a portfolio will be conducted as follows:

The professional discussion will be undertaken by an independent assessor.

A minimum of 10 questions should be asked.

The professional discussion is underpinned by the portfolio submitted as a gateway requirement.

The apprentice and the independent assessor will have access to their own copies of the portfolio throughout the professional discussion and both can refer to it as needed.

Questioning should be used to assess KSBs mapped to this method and to explore the apprentice's ability to demonstrate against the KSBs in different circumstances. KSBs should only be assessed once. Apprentices will be expected to refer to examples in their portfolio to support their answers.

Independent assessors must be trained and standardised in the conduct of professional discussions, how to design their own questions from reviewing portfolio content, and in reaching consistent judgement by their EPAO.

The purpose of the professional discussion underpinned by a portfolio is to:

- assess the KSBs mapped to this method
- explore aspects of the work, including how it was carried out, in more detail
- require the apprentice to draw on their evidence to demonstrate the KSBs

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

The independent assessor will make all grading decisions.

Assessment location

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

The professional discussion underpinned by a portfolio 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)
- via video conferencing

Video conferencing can 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.

Question and resource development

Independent assessors are responsible for generating suitable questions in line with the EPAO's training and standardisation process. A question bank must be developed by EPAOs. 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. The question bank must be of sufficient size to prevent predictability and the EPAO must review it 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 and re-takes.

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

- a question bank
- structured specification
- assessment recording documentation
- guidance document for employers and apprentices on the process / timescales for the assessment
- 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 EPA plan.

Overall EPA grading

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

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 overall EPA 'fail'.

In order to gain an overall EPA 'pass', apprentices must achieve a pass in all the assessment methods.

In order to achieve an overall EPA 'distinction', apprentices must achieve a pass in both short answer and multiple-choice tests and a distinction in both the professional discussion and practical demonstration with questions.

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

Practical demonstration with questions	Short answer test	Multiple-choice test	Professional discussion	Overall grading
Any grade	Any grade	Any grade	Fail	Fail
Fail	Any grade	Any grade	Any grade	Fail
Any grade	Any grade	Fail	Any grade	Fail
Any grade	Fail	Any grade	Any grade	Fail
Pass	Pass	Pass	Pass	Pass
Pass	Pass	Pass	Distinction	Pass
Distinction	Pass	Pass	Pass	Pass
Distinction	Pass	Pass	Distinction	Distinction

Any grade = fail, pass or distinction

Re-sits and re-takes

Apprentices who fail one or more assessment method/s will be offered the opportunity to take a re-sit or a re-take at the employer's discretion. The apprentice's employer will need to agree that either a re-sit or re-take is an appropriate course of action.

A re-sit does not require further learning, whereas a re-take does.

Apprentices should have a supportive action plan to prepare for a re-sit or a re-take.

The timescales for a re-sit or re-take is agreed between the employer and EPAO. A re-sit is typically taken within 3 months 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 6 months of the EPA outcome notification.

All assessment methods must be taken within a 6-month period, otherwise the entire EPA will need to be re-sat or re-taken.

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

Where any assessment method must 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"> • participate in and complete on-programme training to meet the KSBs as outlined in the occupational standard for a minimum of 12 months • undertake 20% off-the-job training as arranged by the employer and training provider • understand the purpose and importance of EPA • undertake the EPA including meeting all gateway requirements
Employer	<p>As a minimum, employers should:</p> <ul style="list-style-type: none"> • select the EPAO and training provider • 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 • arrange and support a minimum of 20% off-the-job training to be undertaken by the apprentice • decide when the apprentice is working at or above the occupational standard and so is ready for EPA • ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan • remain independent from the delivery of the EPA • 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) • ensure that the EPA is scheduled with the EPAO for a date and time which allow appropriate opportunity for the KSBs to be met • ensure the apprentice is well prepared for the EPA • 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 • where the apprentice is assessed in the workplace, ensure that the apprentice has access to the resources used daily

	<ul style="list-style-type: none"> • pass the certificate to the apprentice
EPAO	<p>As a minimum, EPAOs should:</p> <ul style="list-style-type: none"> • conform to the requirements of this EPA plan and deliver its requirements in a timely manner • conform to the requirements of the Register of End-Point Assessment Organisations (RoEPAO) • conform to the requirements of the external quality assurance provider (EQAP) for this apprenticeship standard • understand the occupational standard • make all necessary contractual arrangements, including agreeing the price of the EPA • develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material) • appoint suitably qualified and competent independent assessors • appoint administrators (and invigilators where required) to administer the EPA as appropriate • provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading • provide adequate information, advice and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA • arrange for the EPA to take place, in consultation with the employer • 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 • 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 • 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 • have policies and procedures for internal quality assurance (IQA), and maintain records of regular and

	<p>robust IQA activity and moderation for external quality assurance (EQA) purposes</p> <ul style="list-style-type: none"> • deliver induction training for independent assessors, and for invigilators and/or markers (where used) • 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) • manage invigilation of apprentices in order to maintain security of the assessment in line with the EPAO's malpractice policy • verify the identity of the apprentice being assessed • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard • provide details of the independent assessor's name and contact details to the employer • have and apply appropriately an EPA appeals process • request certification via the Apprenticeship Service upon successful achievement of the EPA
Independent assessor	<p>As a minimum, independent assessors should:</p> <ul style="list-style-type: none"> • 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 • understand the occupational standard and the requirements of this EPA • have, maintain and be able to evidence up-to-date knowledge and expertise of the subject matter • deliver the end-point assessment in-line with the EPA plan • comply with the IQA requirements of the EPAO • 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) • attend induction training • attend standardisation events when they begin working for the EPAO, before they conduct an EPA for the first time and a minimum of annually on this apprenticeship standard • assess each assessment method, as determined by the EPA plan, and without extending the EPA unnecessarily

	<ul style="list-style-type: none"> • 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 • make all grading decisions • 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 • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard • mark open (constructed) test answers accurately according to the EPAO's mark scheme and procedures
Training provider	<p>As a minimum, training providers should:</p> <ul style="list-style-type: none"> • 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 • conduct training covering any knowledge, skill or behaviour requirement agreed as part of the Commitment Statement (often known as the Individual Learning Plan). • monitor the apprentice's progress during any training provider led on-programme learning • advise the employer, upon request, on the apprentice's readiness for EPA • 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
Marker	<p>As a minimum, markers should:</p> <ul style="list-style-type: none"> • attend induction training • 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) • mark multiple-choice test answers accurately according to the EPAO's mark scheme and procedures
Invigilator	<p>As a minimum, invigilators should:</p> <ul style="list-style-type: none"> • attend induction training as directed by the EPAO

	<ul style="list-style-type: none">• 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)• invigilate and supervise apprentices during tests and in breaks during assessment methods to prevent malpractice in accordance with the EPAO's invigilation procedures
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Internal Quality Assurance (IQA)

Internal quality assurance refers to the strategies, policies and procedures that EPAOs must have in place to ensure valid, consistent and reliable end-point assessment decisions. EPAOs for this EPA must adhere to all requirements within the Roles and Responsibilities section and:

- have effective and rigorous quality assurance systems and procedures that ensure fair, reliable and consistent assessment across employers, places, times and independent assessors
 - appoint independent assessors who are competent to deliver the end-point assessment and who meet all the following minimum requirements:
 - hold a level 4 arboricultural qualification (or higher) and has relevant sector experience (a minimum of 1 year)
- or
- can demonstrate they have the required knowledge, skills and behaviours as relevant to the duties specified within the Arboriculturist through:
 - a minimum of 3 years sector experience/employment history and
 - evidence of relevant CPD undertaken within the last 12 months
- operate induction training for independent assessors, markers and invigilators
 - provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
 - where appropriate:
 - provide ongoing training for markers
 - provide ongoing training for invigilators
 - 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
 - periodically as appropriate (a minimum of annually)
 - conduct effective moderation of assessment decisions and grades
 - conduct appeals where required, according to the EPAO's appeals procedure, reviewing and making final decisions on assessment decisions and grades

Value for money

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

- use of technology – for example video conferencing where applicable
- location – for example use of employer premises, as long as the site meets the specification of the assessment method
- making maximum use of each typical 7.5 hour working day

Professional body recognition

This apprenticeship standard is designed to prepare successful apprentices to meet the qualification requirements for registration as a technician member with the Arboricultural Association.

The experience gained and responsibility held by the apprentice on completion of the apprenticeship standard will either wholly or partially satisfy the requirements for registration with the professional body. For more details on the requirements and application process, please contact the professional body directly.

Mapping of knowledge, skills and behaviours (KSBs)

End-point assessment method 1: Practical demonstration with questions

Knowledge

K1	British Standards relevant to arboricultural works including 3998 (tree works) and 5837 (trees in relation to design, demolition and construction).
K2	Principles of tree growth, physiology, characteristics and reaction to pruning.
K6	Hazard assessment methodologies in relation to a single tree.
K8	Types of tree works related to tree form, function, and client expectation, their specification and implications for tree health, safety and aesthetics.
K37	Methodologies, techniques and tools for inspection and measurement of trees.

Skills

S1	Tree inspection including assessment of health, defects, safety risks, site factors, planning requirements and aesthetics.
S2	Interpret maps and plans.
S3	Assess tree risk to inform decision making.
S4	Specify arboricultural works.
S7	Follow instructions and processes.
S28	Collect tree data including taking measurements.
S29	Make tree management recommendations verbally.

Behaviours

B5	Embed sustainable working practices.
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End-point assessment method 2: Short answer test

Knowledge

K7	Basic principles of woodland management.
K15	The legal framework around trees including statutory protection for trees and penalties associated with breaches of legislation and regulations.
K17	Conflicts between trees and the built environment including damage (direct or indirect) to infrastructure and subsidence.
K21	The principles for resilient tree populations and the application of biosecurity.
K35	The purpose and function of tree management plans and strategies and their implications for tree management.

Skills

S6	Select biosecurity protocols.
S13	Advise on implications of arboricultural policy, legislation, regulation and best practice including local and national planning policy.

End-point assessment method 3: Multiple-choice test

Knowledge

K3	The life stages of a tree including propagation techniques, aging process, deadwood habitats and veteran tree management.
K4	Characteristics of tree pests and pathogens, their impact on the tree health and performance, and management responses.
K9	Classification of trees and their taxonomy; application of nomenclature (including cultivars where appropriate) per scientific convention.
K10	Implications of legislation and industry best practice guidance when undertaking tree work operations and their impact on team management, policy and process for example H&S Act, specific training requirements, Working at Height, LOLER, PUWER, AFAG, COSSH.
K12	Tree bracing styles, systems and uses.
K14	Types of advanced diagnostic systems and their purpose in assessment of tree risk.
K22	The characteristics of ancient trees, veteran trees and trees of historical or cultural significance.
K23	Sources of information on funding schemes for tree planting and management.

Skills

S5	Select advanced diagnostic equipment for tree risk assessment.
S14	Identification of tree species, their characteristics and requirements for healthy growth.
S30	Identify tree pests and pathogens, assess impacts on tree health and suggest management responses.

End-point assessment method 4: Professional discussion underpinned by a portfolio

Knowledge

K5	Principles of soil science.
K11	Considerations when planting trees including planting systems, site factors, species selection, protection, aftercare, and British Standard 8545.
K13	Tree inventory systems and their uses.
K16	Health and Safety legislation and regulations; principles related to work placed risk assessment and management, including method statements.
K18	Benefits of trees (for example climate change adaptation, carbon sequestration, human health and wellbeing) and how these could influence management decisions.
K19	Tree valuation systems, methodologies and their purposes.
K20	The role of an arboriculturist and how this occupation collaborates with other professions for example engineers, land managers, ecologists, landscape architects and planners.
K24	Project management principles including working within budget, systems and processes.
K25	Contractual terms and processes for example the role of the client brief, the fee proposal, the scope, and the instruction.
K26	Tendering, procurement processes and scoring systems.
K27	Principles and use of different communication tools.
K28	Principles of customer service including confidentiality, data management, complaints and use of social media.

K29	Principles of sales and marketing both direct service promotion and indirect industry promotion.
K30	Roles of different stakeholders for example client, public, councillors in management of trees and techniques for engaging with the community.
K31	Staff and team management principles including motivation, performance and work quality.
K32	Principles of equality, safeguarding and diversity.
K33	Principles of managing and supporting meetings.
K34	Sources of information and techniques to research, collate and analyse arboricultural information and data.
K36	Methods for establishing and monitoring quality standards for tree work operations.

Skills

S8	Write arboricultural reports.
S9	Use software-based tree management systems, including associated laptop and handheld remote working equipment.
S10	Produce plans using digital mapping software (for example GIS).
S11	Select and use different formats to communicate information (for example table, image, map, text, graph).
S12	Collect, research and analyse arboricultural information and data including reliable information sources.
S15	Manage projects including working within budget, systems and processes.
S16	Produce quotations or tenders including defining a scope/specification of work.
S17	Foster professional relationships with clients, customers and colleagues and engage with the community.
S18	Negotiate with colleagues and stakeholders to achieve desired outcomes.
S19	Communicate information to technical and non- technical audiences using a range of techniques.
S20	Take meeting notes or minutes.
S21	Seek further information from managers, supervisors or colleagues, when necessary.
S22	Create and evaluate relevant risk assessments and method statements for arboricultural operations.
S23	Provide customer service.
S24	Identify soil type, properties, condition and implications for tree health.

S25	Value trees as assets for both amenity and ecosystem service provision.
S26	Establish and monitor quality standards for tree work operations.
S27	Promote the organisation, products, services, or activities.
S31	Assess tree planting practices.

Behaviours

B1	Act with integrity, for example being open and transparent in dealing with clients and respecting their confidentiality. Take full responsibility for your actions.
B2	Communicate with others and takes into account cultural sensitivities and business practices.
B3	Act professionally, providing a high standard of service based on sound business evidence.
B4	Adopt and promote a safety culture within the organisation and acts with regard to health, safety and wellbeing for self and others.

Grading descriptors

End-point assessment method 1: Practical demonstration with questions

Themes and KSB's	Pass (will be awarded when all the pass criteria are met)	Distinction (will be awarded when all of the pass and distinction criteria are met)
Hazard and risk K6 S3	Demonstrates hazard assessment methodologies in evaluating tree risk to inform decision making. (K6, S3)	Justifies the hazard assessment methodology they used. (K6, S3)
Tree Inspection K1 K2 K37 S1 S2 S7 S28	<p>Inspects trees in line with British Standards relevant to arboriculture including 3998 and 5837, for health, defects, risks, site factors and planning requirements including aesthetics, (K1, K2, S1)</p> <p>Follows instructions and processes and interprets maps and plans when conducting tree inspections. (S2, S7)</p> <p>Demonstrates the collection of tree data using the methodologies, techniques and tools for the inspection and measurement of trees. (K37, S28)</p>	
Specify arboricultural works K8 S4 S29 B5	Makes informed verbal recommendations, which meet the requirements of the assigned scenario, for arboricultural works, describing the specification and implications for tree health, safety, aesthetics and client expectations. Explains the environmental implications they have considered in forming their recommendations by demonstrating sustainable working practices. (K8, S4, S29, B5)	Justifies their recommendations for arboricultural work and outlines the advantages and disadvantages of alternative options. (K8, S4)
Fail: apprentices will fail where they do not meet all the pass criteria		

End-point assessment method 2: Short answer test

Themes and KSBs	Pass (will be awarded when all the pass criteria are met)
Legislation, regulation, and best practice K15 S13	Explains and advises on the legal framework around trees, wildlife and the wider environment, including statutory protection for wildlife and trees; and penalties associated with breaches of legislation and regulations including 'duty of care', regional and national planning policy. (K15, S13)
Conflict between trees and the built environment K17	Appraises conflicts between trees and the built environment including damage (direct or indirect) to infrastructure including subsidence. Describes the causes of subsidence. (K17)
Woodland management K7	Explains the basic principles of woodland management. (K7)
Tree Management Plans and Strategies K35	Explains the purpose and function of tree management plans and strategies and their implications for tree management. (K35)
Resilience and biosecurity K21 S6	Explains the principles for resilient tree populations and the application of biosecurity. Justifies biosecurity protocols for different contexts. Demonstrates awareness of national plant health strategies. (K21, S6)
Fail: apprentices will fail where they do not meet all the pass criteria	

End-point assessment method 3: Multiple-choice test

Grade Boundaries

KSBs	Grade	Minimum mark	Maximum mark
K3, K4, K9, K10, K12, K14, K22, K23	Fail	0	23
	Pass	24	30

End-point assessment method 4: Professional discussion underpinned by a portfolio

Themes and KSBs	Pass (will be awarded when all the pass criteria are met)	Distinction (will be awarded when all of the pass and distinction criteria are met)
Tree valuation systems K19 S25	Explains tree valuation systems, methodologies, and their purposes. Completes tree valuations as assets for both amenity and ecosystem service provision. (K19, S25)	Compares tree valuation systems, methodologies, and explains their suitability for different purposes. (K19, S25)
Soils K5 S24	Applies the principles of soil science to identify soil type, properties, condition, and the implications of this for tree health. (K5, S24)	
Communication K27 S8 S11 S19 B2	Identifies and applies methods of communication to convey information, selecting technical and or non-technical language in reflection of the audience, taking into account cultural sensitivities and business practices. (S19, B2) Describes how they produce arboricultural reports that include clear specifications in accordance with best practice and standards, to include different formats to present information. (K27, S8, S11)	Appraises the use of different communication techniques and formats for different situations and audiences. (K27, S11, S19)
Customer service K28 S23 B1 B3	Articulates how they provide customer service based on sound business evidence including confidentiality, data management and appropriate use of social media. Acts with integrity and takes full responsibility for actions by following the guidelines on honesty and integrity as set out by the code of conduct for the profession and or organisation. (K28, S23, B1, B3)	
Meetings	Explains the principles of managing and supporting meetings and makes	

K33 S20	notes and or takes minutes. (K33, S20)	
Relationships and negotiation K20 K30 S17 S18	Explains the role of an arboriculturist and how this occupation fosters professional relationships with other disciplines. Explains how they negotiate with colleagues and stakeholders to achieve desired outcomes. Explains the roles of different stakeholders in management of trees and how to engage with them, including the community. (K20, K30, S17, S18)	Appraises methods for engagement with community, other professions, colleagues, and stakeholders. (K30, S17, B1)
Manage self S21	Demonstrates they seek further information from managers, supervisors, or colleagues. (S21)	Evaluates their performance based on feedback received from managers, supervisors, or colleagues. (S21)
Sales and marketing K29 S27	Demonstrates the principles of sales and marketing in explaining how they promote the industry and an organisation, product, service, or activity. (K29, S27)	Evaluates impact of sales, marketing or promotion activities and suggests improvements or efficiencies for future activities.
Health and Safety K16 S22 B4	Adheres to current health and safety legislation/guidance both nationally and within the organisation including creating and evaluating risk assessments and method statements for arboricultural operations. Explains how they promote health, safety, and wellbeing culture within in the workplace. (K16, S22, B4)	Justifies their management of work-place risk assessment and method statements with reference to established policies and procedures. (K16, S22)
People management and safeguarding K31 K32	Explains staff and team management principles including motivation, performance, and quality. Explains how they ensure equality, safeguarding and diversity within the workplace. (K31, K32)	
Project management K24 S15	Manages projects, within budget, systems and processes. (K24, S15)	Evaluates their management of projects and identifies ways to further improve management of future projects. (K24, S15)

Procurement / tenders and contracts K25 K26 K36 S16 S26	Describes how they produce quotations or tenders within a procurement process for tree work operations and explains how they establish and monitor quality standards in line with contractual terms and processes. (K25, K26, K36, S16, S26)	Analyses their process of producing quotations or tenders, identifying areas of risk and where improvements could be made to ensure the process meets the specified outcome. (K26, S16)
Technology K13 S9 S10	Explains how they produce plans using digital mapping software. Demonstrates the use of software-based tree management and inventory systems, including associated laptop and handheld remote working equipment. (K13, S9, S10)	Justifies the benefits of using tree inventory systems for strategic tree management. (K13, S9, S10)
Research K34 S12	Describes how they research, collate and analyse arboricultural information and data, outlining their sources of reliable information. (K34, S12)	Evaluates their collation, research and analysis techniques of arboricultural information and data, explaining how they can make further improvements. (K34, S12)
Benefits of trees K18	Explains the benefits of trees and how these could influence management decisions. (K18)	Analyses the benefits of trees and outlines how these could be promoted to influence stakeholders. (K18)
Planting K11 S31	Explains the considerations when planting trees including stock condition, planting systems, site factors, species selection and British Standard 8545 and describes how they assess tree planting practices. (K11, S31)	
Fail: apprentices will fail where they do not meet all the pass criteria		