

End-point assessment plan for the print operative apprenticeship standard

Apprenticeship standard reference number	Apprenticeship standard level	Integrated end-point assessment
ST0962	2	No

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Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the print operative 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).

Print operative is a core and options apprenticeship standard. Apprentices must be trained and assessed against the core and one option. There are three options:

- Option 1: Pre-press operative
- Option 2: Press operative
- Option 3: Post-press operative

Full-time apprentices will typically spend 24 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 spend a minimum of 20% of on-programme time undertaking off-the-job training.

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 1 and have taken the tests for Level 2¹
- apprentices must have compiled and submitted a portfolio of evidence to support the interview

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 3 months.

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.

This EPA consists of 3 discrete assessment methods.

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

Assessment method 1. Observation with questions:

- fail
- pass
- distinction

Assessment method 2. Interview underpinned by a portfolio of evidence:

- fail
- pass
- distinction

Assessment method 3. Multiple-choice test:

- fail
- pass
- distinction

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

- fail
- pass
- merit
- distinction

EPA summary table

On-programme (typically, 24 months)	<ul style="list-style-type: none"> • Training to develop the knowledge, skills and behaviours (KSBs of the relevant occupation (devices or estates) • Training towards English and mathematics Level 1 and 2, if required. • Compiling a portfolio of evidence.
End-point assessment gateway	<ul style="list-style-type: none"> • The employer must be content that the apprentice is working at or above the level of the occupational standard for their option. • Apprentices must have achieved English and mathematics Level 1 and have taken the assessments for Level 2. • Apprentices must submit a portfolio of evidence to underpin the EPA interview. • The employer must provide the EPAO with any workplace specific policies, requirements and or instructions as requested.
End-point assessment (typically, 3 months)	<p>Assessment method 1: Observation with questions</p> <ul style="list-style-type: none"> • fail • pass • distinction <p>Assessment method 2: Interview underpinned by a portfolio of evidence</p> <ul style="list-style-type: none"> • fail • pass • distinction <p>Assessment method 3: Multiple-choice test</p> <ul style="list-style-type: none"> • fail • pass • distinction <p>Performance in these assessment methods will determine the EPA overall apprenticeship standard grade of:</p> <ul style="list-style-type: none"> • fail • pass • merit • distinction

Length of EPA period

The EPA will be completed within an EPA period lasting typically for 3 months, starting when the EPAO has confirmed that all gateway requirements have been met.

Order of 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 level of 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 other 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 1 and taken the tests for 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 interview, compiled and submitted a portfolio of evidence – see below
- for the observation with questions the employer needs to provide any workplace specific policies, requirements and or instructions as referenced in the grading descriptors
- for the multiple-choice test, there are no specific requirements to submit supporting materials.

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 interview
- the portfolio of evidence will typically contain 10 discrete pieces of evidence
- evidence should be mapped by the apprentice against the KSBs assessed by the interview
- 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, for example workplace policies/procedures, records, logbooks
 - witness statements
 - annotated photographs
 - video clips (maximum total duration 10 minutes); the apprentice should always 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 interview and therefore should not be marked by the EPAO. EPAOs should review the portfolio in preparation for the interview 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: Observation with questions

Overview

This assessment method has one component.

An observation with questions involves an independent assessor observing and questioning an apprentice undertaking work as part of their normal duties, in the workplace. This allows for a demonstration of the KSBs through naturally occurring evidence. The observation must be of an apprentice completing their usual work and simulation is not permitted. Apprentices must be observed by the independent assessor completing work under normal working conditions. The independent assessor will ask questions in relation to underpinning knowledge or where an opportunity to observe an activity has not naturally occurred.

The rationale for this assessment method is:

- this is a practical role, best demonstrated through completing tasks in a real work setting
- observation makes use of employer resources and equipment, which will be familiar to the apprentice and thus allow them to perform at their best
- questioning allows for the assessment of the breadth and depth of underpinning knowledge against the grading descriptors
- tasks completed during the observation should contribute to workplace productivity and are valid
- it is a holistic assessment method

Delivery

The observation with questions must take 2 hours (assessment time). The time for questioning is included in the overall assessment time.

The observation 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 observation with questions by up to 10% to allow the apprentice to complete a task or respond to a question.

One independent assessor may observe only one apprentice at any one time, to ensure quality and rigour.

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

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Apprentices must be observed undertaking all the core activities and all the activities of their one chosen option as outlined below:

Core observation requirements for ALL apprentices:

- read and interpret job bag or work instructions
- undertake all activities in line with Health, Safety & Environmental guidelines
- complete documentation and transition to next department

Plus, the observation requirements for ONE option:

Option 1: Pre-press operative

- receipt, checking, and processing of digital files
- use and application of business software packages
- production of proofs, plates, screens, output files or materials
- calibrate proof production equipment

Option 2: Press operative

- preparation of press equipment to order specification and timescales
- test, check, set up and shut down print equipment to order specification and timescales
- conduct visual inspections
- remove work from the press on completion
- undertake first line maintenance

Option 3: Post-press operative

- preparation of finishing equipment to order specification and timescales
- test, check and set up finishing equipment to order specification and timescales
- conduct visual inspections
- remove work from the equipment on completion
- prepare, handle and pack materials
- undertake first line maintenance

The observation should be conducted in the following way, to take account of the occupational context in which the apprentice operates.

The independent assessor must be unobtrusive whilst conducting the observation.

Questions must be asked. The purpose of questioning is to test the apprentice's breadth and depth of underpinning knowledge against the grading descriptors.

As only naturally occurring work is observed, those KSBs that the apprentice did not have the opportunity to demonstrate can be assessed via questioning, although these should be kept to a minimum.

The independent assessor must ask a minimum of 5 open questions. They may ask follow-up questions where clarification is required.

The questions can be asked by the independent assessor both during and after work completion. To remain as unobtrusive as possible, independent assessors should ask questions during natural stops between tasks and/or after completion of work rather than disrupting the apprentice's flow.

Independent assessors must use their EPAO's 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.

The performance observed and responses to questions will be assessed holistically, using the grading descriptors for this assessment method.

The time for questioning is included in the overall assessment time.

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

The independent assessor will make all grading decisions.

Assessment location

The observation with questions should take place in the apprentice's workplace.

The employer should ensure the necessary tools, equipment and materials are available for the apprentice during the observation with questions.

Question and resource development

EPAOs will create and set open questions to assess related underpinning KSBs. They must develop 'question banks' 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. 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/re-takes.

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

- independent assessor training materials
- observation specifications
- grading guidance
- question banks
- outline of the assessment method's requirements
- marking materials
- guidance document for employers and apprentices on the process/timescales for the observation with questions as well as a description of the purpose
- guidance document for independent assessors on how to carry out the assessment

End-point assessment method 2: Interview underpinned by a portfolio of evidence

Overview

This assessment method has one component.

An interview consists of an independent assessor asking an apprentice a series of questions to assess their competence against the KSBs. The independent assessor leads this process to obtain information from the apprentice to enable a structured assessment decision-making process.

The rationale for this assessment method is:

- allows for assessment of KSBs that do not occur on a predictable or regular basis
- it allows for testing of responses where there are a range of potential answers that cannot be tested through the multiple-choice test
- it can be conducted remotely, potentially reducing cost

Delivery

An independent assessor will conduct and assess the interview underpinned by portfolio of evidence.

The interview must last for 50 minutes. The independent assessor has the discretion to increase the time of the interview by up to 10% to allow the apprentice to complete their last answer.

The interview will have a minimum of 5 open questions – one per topic. During this method, the independent assessor must combine questions from the EPAO's question bank and those generated by themselves.

The purpose of the questions will be to cover the following topics:

Core

- health and safety, environmental and sustainability
- organisation relationships and wider industry
- quality of production activity

Apprentices will be assessed taking into account the context of the print machinery or equipment they use, as per the apprenticeship standard option they are completing, which are:

Option 1: Pre-press operative

- production of image carrier
- digital file checks

Option 2: Press operative

- safe handling
- maintenance

Option 3: Post-press operative

- Finishing equipment
- Maintenance

The interview will be conducted as follows.

EPAOs must arrange the interview in conjunction with the apprentice's employer.

The independent assessor should have a minimum of 2 weeks to review the portfolio of evidence.

Apprentices must be given at least 2 weeks' notice of the date and time of the interview.

Questions should be open and competence based. Additional follow up questions are allowed, to seek clarification and to make a judgement against the grading descriptors.

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 questions in line with the EPAO's training and standardisation process.

Apprentices must have access to their portfolio of evidence during the interview.

Apprentices can refer to and illustrate their answers with evidence from their portfolio of evidence, however the portfolio of evidence is not directly assessed.

Apprentices are expected to understand and use relevant occupational language that would be typical of a competent person in this occupation.

Evidence from the interview must be assessed holistically using the grading descriptors for this assessment method.

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

The independent assessor will make all grading decisions.

Assessment location

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

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

The interview 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

Question and resource development

A 'question bank' must be developed by EPAOs. 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 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.

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

- question bank
- outline of the assessment method's requirements
- marking materials
- guidance document for employers and apprentices on the process/timescales for the interview as well as a description of the purpose
- guidance document for independent assessors on how to carry out the assessment
- independent assessor training materials
- grading guidance

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:

- it allows for the efficient testing of knowledge where there is a right or wrong answer
- it allows for flexibility in terms of when, where and how it is taken
- it allows larger volumes of apprentices to be assessed at one time

Delivery

Test format

The multiple-choice test can be:

- computer based
- paper based

It will consist of 20 questions.

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

Test administration

Apprentices must have 30 minutes to complete the multiple-choice test.

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

Assessment

Multiple-choice 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.

A correct response will be assigned one mark.

Any incorrect or missing answers must be assigned zero marks.

Grading boundaries

The following grade boundaries apply to the multiple-choice test:

Grade	Minimum mark	Maximum mark
Fail	0	11
Pass	12	16
Distinction	17	20

Assessment location

Apprentices must take the multiple-choice 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 any independent person appointed by the EPAO. The EPAO is required to have an invigilation policy that will set out how the multiple-choice test is to be carried out. This will include specifying the most appropriate ratio of apprentices to invigilators to best take into account the setting and security required in administering the multiple-choice test.

The EPAO is responsible for ensuring the security of any multiple-choice tests 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 identity of the person taking the multiple-choice test. The EPAO must also verify the suitability of the venue for multiple-choice test-taking.

Question and resource development

Questions must be written by EPAOs and must be relevant to the occupation. It is recommended that this be done in consultation with employers of this occupation. EPAOs should maintain the security and confidentiality of their questions when consulting employers. EPAOs must develop 'multiple-choice test specifications' and 'question banks' 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 specifications, including 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/re-takes.

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

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

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 adjustments 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, merit or distinction.

Independent assessors must individually grade the observation with questions and interview underpinned by a portfolio of evidence assessment methods, according to the requirements set out in this plan. A person appointed by the EPAO must grade the multiple-choice test. Alternatively, marking by computer is permissible where question type allows this.

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.

To gain an overall EPA pass, apprentices must achieve a pass in all the assessment methods.

To achieve a merit apprentices must achieve a distinction in the observation with questions, and they must achieve a distinction in either one of the interview underpinned by a portfolio of evidence or in the multiple-choice test. They must also pass the assessment method (interview underpinned by a portfolio of evidence or multiple-choice test) where a distinction is not achieved.

To achieve an overall EPA distinction, apprentices must achieve a distinction in all 3 assessment methods.

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 questions	Assessment method 2 – Interview underpinned by a portfolio of evidence	Assessment method 3 – Multiple-choice test	Overall grading
Fail	Any grade	Any grade	Fail
Any grade	Fail	Any grade	Fail
Any grade	Any grade	Fail	Fail
Pass	Pass	Pass	Pass
Pass	Distinction	Distinction	Pass
Pass	Pass	Distinction	Pass
Pass	Distinction	Pass	Pass
Distinction	Pass	Pass	Pass
Distinction	Pass	Distinction	Merit
Distinction	Distinction	Pass	Merit
Distinction	Distinction	Distinction	Distinction

Any grade = fail, pass, 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 timescale for a re-sit/re-take is agreed between the employer and EPAO. A re-sit is typically taken within 2 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 4 months of the EPA outcome notification.

All failed assessment methods must be re-sat/re-taken within a 6 month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat/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 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.

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 a minimum of 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"> • work with the training provider (where applicable) to support the apprentice in the workplace to provide the opportunities 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 • select the EPAO • 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 documentations 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 any 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 on a daily basis • provide the EPAO with any workplace specific policies, requirements and or instructions as requested

EPAO	<p>As a minimum, EPAOs should:</p> <ul style="list-style-type: none"> • agree the EPA price • understand the occupational standard • 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 • deliver the EPA as outlined in this EPA plan in a timely manner • where the apprentice is not assessed in the workplace, ensure that the apprentice has access to required resources and liaise with the employer to agree this if necessary • use 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 robust IQA activity and moderation for external quality assurance (EQA) purposes • conform to the requirements of the nominated external quality assurance provider (EQAP) • conform to the requirements of the Register of End-Point Assessment Organisations (RoEPAO) • deliver induction training for independent assessors, and for invigilators and 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 their malpractice policy • verify the identity of the apprentice being assessed
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	<ul style="list-style-type: none"> • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard • request certification via the Apprenticeship Service upon successful achievement of the EPA
Independent assessor	<p>As a minimum, an independent assessor 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 • 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 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
Training provider	<p>As a minimum, the training provider 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

	<p>to develop the knowledge, skills and behaviours as listed in the occupational standard</p> <ul style="list-style-type: none"> • conduct training covering any knowledge, skill or behaviour requirement agreed as part of the Commitment Statement (often known as the Individual Learning Plan). • monitor apprentices 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. HEI) there must be procedures in place to mitigate against any conflict of interest
Marker	<p>As a minimum, the marker 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
Invigilator	<p>As a minimum, invigilators should:</p> <ul style="list-style-type: none"> • attend induction training as directed by 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) • invigilate and supervise apprentices during tests and in breaks during assessment methods to prevent malpractice in accordance with the EPAO's invigilation procedures

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:
 - have recent relevant experience of the occupation/sector to at least occupational level 3 gained in the last 3 years or significant experience of the occupation and print sector
- operate induction training for independent assessors and any other personnel involved in the delivery and or/assessment of the EPA (for example 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 and invigilators
- provide standardisation activity for 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:

- completing applicable assessment methods online (i.e. computer-based assessment)
- utilising digital remote platforms to conduct applicable assessment methods
- assessing multiple apprentices simultaneously
- using the employer's premises
- conducting assessment methods on the same day

Mapping of knowledge, skills and behaviours (KSBs)

End-point assessment method 1: Observation with questions

KNOWLEDGE
K8: Works instructions purpose and requirement: the different variables within materials, colours, machine and wastage
K15: Option 1: Pre-press operative. Digital files checks, techniques for solving issues with software and workflow management: colour profiling and data integrity
K16: Option 1: Pre-press operative. Proofs: techniques for creating proofs from client files
K17: Option 1: Pre-press operative. Calibration methods for proof production equipment
K19: Option 2: Press operative. Print presses: methods for the preparation, set up, and shutting down of machinery
SKILLS
S1: Read, interpret and follow information, for example, printing instructions and specifications
S2: Inspect work against specifications and quality standards, for example, works instructions, colour standard, materials or files received
S3: Record information: digital or manual
S4: Follow health and safety regulations, legislation and procedures: PPE, manual handling and ergonomic practice
S6: Communicate with colleagues: written, verbal or digital. For example, using digital tools such as email, Information technology (IT) telephony, social media, multi-media, video, infographics
S8: Identify and report production issues. For example, missing fonts, incorrect materials supplied, wrong adhesive indicated
S9: Option 1: Pre-press operative. Select and use software packages for pre-press, design or workflow tasks. For example, MS Office or equivalent, pdf workflow such as 'Screen True-flow', 'Adobe InDesign', 'Adobe Illustrator' and ERP system such as 'Tharstern'
S10: Option 1: Pre-press operative. Select, check and use equipment for the production of a printed or digital 'proof'
S11: Option 1: Pre-press operative. Calibrate proof production equipment
S12: Option 1: Pre-press operative. Select, check and use equipment for the production of plates, screens, output files and materials

SKILLS
S13: Option 2: Press operative. Identify and set up printing presses
S14: Option 2: Press operative. Conduct and log first line preventative maintenance. For example, clean and lubricate printing equipment
S15: Option 2: Press operative. Inspect the quality of print output during production run. For example, colour management, print resolution and product consistency
S16: Option 2: Press operative. Follow print press shut down procedures
S17: Option 3: Post-press operative. Identify, set up and load finishing equipment with materials. For example, guillotines, stitching-trimming machinery, binding machinery, laminating equipment, die-cutters
S18: Option 3: Post-press operative. Conduct and log first line preventative maintenance. For example, clean and lubricate Post Press finishing equipment
S19: Option 2: Press operative and Option 3: Post-Press Operative. Prepare print material for the next stage in production. For example, palletising; ensuring all material laid in the same direction, boxing, labelling
S20: Option 2: Press operative and Option 3: Post-Press Operative. Identify and segregate printed materials into those for use in the next stage of production and those for recycling or disposal
S21: Option 3: Post-ress operative. Inspect the quality of the finishing and report any issues arising during the process. For example, misalignment or gathering
BEHAVIOURS
B1: Prioritise health, safety, environment and sustainability at all times
B4: Act professionally, for example wears work attire according to the company requirements, respectful, maintains security of business specific and personal data

End-point assessment method 2: Interview underpinned by a portfolio of evidence

KNOWLEDGE
K1: Health and Safety practice and responsibilities: risk assessments, risk control, Personal Protective Equipment (PPE), manual handling and ergonomic practice
K5: Print industry: how organisations vary regarding their work, culture, values and production processes
K9: Problem solving techniques: identifying issues and developing solutions for print machinery, digital tools and online services
K12: Work area maintenance and efficiency: 5S (Sifting, sorting, sweeping, spick and span) (sort, set in order (or simplify and straighten), shine, standardise and sustain)
K13: Option 1: Pre-press operative. Output image carrier techniques for onward production: print ready electronic files, plate, cylinders and screens
K14: Option 1: Pre-press operative. Techniques for the receipt, checking and processing of digital files: print ready permanent data files (PDFs), database, colour and ink profile files
K21: Option 2: Press operative. Safe handling, storage and packaging procedures for print materials and chemicals
K22: Option 2: Press operative. The maintenance requirements and risks for print machinery
K25: Option 3: Post-press operative. Print finishing equipment, the various types and what it would be used for including any particular safety aspects
K26: Option 3: Post-press operative. The maintenance requirements and risks for finishing equipment

SKILLS
S5: Follow environmental and sustainability regulations and procedures
S7: Implement solutions as developed by management or supervisors

BEHAVIOURS
B2: Adapt to changing priorities. For example, working requirements and new technologies
B3: Team focus. Takes responsibility for completing tasks, completes actions within limits of authority without direction and asks for help where required.
B5: Self-motivated, manages own time effectively, takes responsibility to complete the task or job
B6: Committed to continuous professional development

End-point assessment method 3: Multiple-choice test

KNOWLEDGE
K2: Health and Safety regulations and procedures: Health and Safety at Work Act, Control of Substances Hazardous to Health (COSHH)
K3: Environment and sustainability: Environmental Protection Act, consequences of waste disposal (landfill), energy efficiency
K4: Printing and graphic communication industry and its markets
K6: Print industry practices and processes: printing, quality assurance, materials and colour management
K7: The end-to-end production cycle, quality requirements, deadlines and targets, performance rates (efficiency)
K10: Data security standards: management of information, data and content in line with General Data Protection Regulations (GDPR)
K11: Equality & diversity in the workplace
K18: Option 1: Pre-press operative. Software packages for pre-press, design or workflow tasks
K20: Option 2: Press operative. Properties and structures of materials, inks, toners, blankets, plates, cylinders and the various chemicals required for print operation and maintenance
K23: Option 3: Post-press operative. Print finishing terminology: fold types and ways of conversion of sheets into products
K24: Option 3: Post-press operative. Properties of printing materials, adhesives and chemicals: uses and benefits for paper, adhesive, laminate

Grading descriptors

End-point assessment method 1: Observation with questions

Theme/KSBs	Pass descriptors	Distinction descriptors
Core grading descriptors		
Health, safety and the environment B1 S4	Follows and prioritises health and safety and environmental and sustainability regulations, legislation and procedures; wears PPE required by employer, follows manual handling, lifting and safe ergonomic practice, identifies and segregates print materials for reuse, recycling and disposal according to company procedure. (S4, B1)	Outlines potential consequences to individuals and the business if health and safety is not prioritised. (S4, B1)
Quality control K8 S1 S2 S8	Reads, interprets and follows printing works instructions and specifications to ensure the correct materials for the task are selected. For example, correct code number, design name, colour. (K8, S1) Inspects and cross-checks inputs and outputs against print work instructions and specifications, identifying and reporting production issues. (S2, S8)	Demonstrates how they minimise quality issues and explains why minimising quality issues is important to the business. (S2) Demonstrates how they minimise production issues and explains why a quality control process which includes producing additional quantities (production of overs) at different stages of production is important to the business. (S8)

<p>Communication and professionalism</p> <p>S3 S6</p> <p>B4</p>	<p>Completes digital or manual documentation to ensure information regarding work progress and updates are legible, technically correct and recorded accurately. (S3)</p> <p>Communicates the progress and or completion of work to others using written, verbal or digital means according to the requirements of the task and workplace protocols. (S6)</p> <p>Behaves professionally for example, wears work attire according to the company requirements, respectful, maintains security of business specific and personal data. (B4)</p>	
<p>Option 1 – Pre-press operative grading descriptors</p>		
<p>K15 K16 K17</p> <p>S9 S10 S11 S12</p>	<p>Selects equipment including a print file and conducts prechecks according to work instructions or company specification, identifying any issues arising. (K15, S10)</p> <p>Selects correct software package and converts print file to a print ready format and produces a proof according to work instructions or company specification. (K16, S9,)</p> <p>Calibrates proof production equipment as per machine specification. (K17, S11)</p> <p>Generates, (by selecting, checking and using equipment) output image carrier according to work instructions or company specification for example, plate, electronic file, cylinder or screen. (S12)</p>	<p>Indicates how they resolve typical defects found in pre- checks, files received, and conversion processes and explains how these can be prevented in the future. (K15, S9, S10)</p> <p>Explains the value of conducting calibration and outlines the potential risks if not completed. (K17, S11)</p> <p>Indicates how they would identify potential issues during output image carrier generation and explains how they could be rectified or prevented. (S12)</p>

Option 2 - Press operative grading descriptors		
<p>K19</p> <p>S13 S14 S15 S16 S19 S20</p>	<p>Identifies and sets up printing presses ready for the next scheduled job according to work instructions or company specification and shuts down on job completion. (K19, S13, S16)</p> <p>Conducts first line preventative maintenance and logs maintenance as per the machine specification or guide. (S14)</p> <p>Conducts visual inspections at intervals according to work instructions or company specification reporting any issues such as misalignment or colour variations. (S15)</p> <p>Removes work from the press and prepare for passing to the next department according to work instructions or company specification, ensuring that all materials are presented to meet minimum quality requirements. For example, avoid smudging, all work laid in the same direction. (S19)</p> <p>Identifies and segregates printed materials for reuse, recycling and disposal in line with workplace policies. (S20)</p>	<p>Indicates how to resolve potential set up faults, for example scratched plate, build-up of ink, uneven roller pressure. Explains how these faults could be prevented in the future. (K19, S13)</p> <p>Explains the value of conducting first line preventive maintenance and outlines the potential risks if not completed. (S14)</p> <p>Demonstrates how they identify potential issues which could be encountered during visual inspections and explains how they could be rectified. (S15)</p>
Option 3 - Post-press operative grading descriptors		
<p>S17 S18 S19 S20 S21</p>	<p>Identifies, sets up and loads finishing equipment with materials according to work instructions or company specification. (S17)</p> <p>Conducts and logs first line preventative maintenance as per</p>	<p>Demonstrates how they check for potential set up faults (not print faults) for example, registration, machine issues, and explains how they identify, resolve and prevent them from occurring in the future. (S17)</p>

	<p>the machine specification or guide. (S18)</p> <p>Takes materials off the machine, according to work instructions or company specification, packing and preparing them for the next stage. (S19)</p> <p>Conducts visual inspections, according to work instructions or company specification of the output, identifying and removing printed materials for reuse, recycling and disposal, at predefined intervals reporting any issues such as misalignment or gathering. (S20, S21)</p>	<p>Explains the value of first line preventative maintenance being conducted and highlights the risk of not undertaking preventative maintenance. (S18)</p> <p>Demonstrates how they identify and rectify potential issues with the quality of the finishing and explains why this is important to the business. (S21)</p>
<p>Fail: apprentices will fail if they do not demonstrate all the pass descriptors</p>		

End-point assessment method 2: Interview underpinned by a portfolio of evidence

Theme/KSBs	Pass descriptors	Distinction descriptors
<p>Core grading descriptors</p>		
<p>Health and safety, environmental and sustainability</p> <p>K1 K12</p> <p>S5</p>	<p>Describes the health and safety practices and responsibilities themselves and others have within the workplace, including risk assessments, risk control, Personal Protective Equipment (PPE), manual handling, lifting procedures and ergonomic practice. (K1)</p>	<p>Explains why it is important to comply with health and safety practices and the environment procedures, outlining the potential consequences on individuals and the business of not following the procedures. (K1, S5)</p>

	<p>Describes how to maintain work area efficiently using the 5S principles (sifting, sorting, sweeping, spick and span. (K12)</p> <p>Explains how they follow environmental and sustainability regulations and procedures within the workplace. (S5)</p>	
<p>Organisation relationships and wider industry</p> <p>K5</p> <p>B2 B3</p>	<p>Describes potential variations in work, culture, values and production processes for different print organisations. (K5)</p> <p>Describes how they have adapted to changing priorities, working requirements or new technologies within the workplace to benefit the organisation. (B2)</p> <p>Describes how they have worked as part of a team, outlining the situation and the role they played while recognising their own limitations. (B3)</p>	
<p>Quality</p> <p>K9</p> <p>S7</p> <p>B5 B6</p>	<p>Explains how they have implemented solutions, developed by management or supervisors, to improve an agreed work schedule which, involved problem solving techniques, describes the outcomes. (K9, S7)</p> <p>Describes how they manage own time effectively and take responsibility to complete tasks or jobs to specification. (B5)</p>	<p>Outlines two different problem-solving techniques and explains how different approaches might benefit different situations. (K9)</p> <p>Explains how they implemented a solution which exceeded expectations, for example improved quality or customer satisfaction. (S7)</p>

	Describes how they are committed to continuous professional development. (B6)	
Option 1 - Pre-press operative grading descriptors		
Production of image carrier K13	Describes the process for effective production of the image carrier, for example, electronic file, plate, cylinder or screen. (K13)	Explains the importance of page layout and quality control aids included on the image carrier with regards to how they achieve the required space utilisation, orientation and imposition. (K13)
Digital file checks K14	Outlines the process for checking of digital files that are received, and techniques for solving any associated issues with software and workflow management. (K14)	Explains the benefits to the business of using digital file checks and explains the associated risks to the business if these were not undertaken. (K14)
Option 2 - Press operative grading descriptors		
Safe handling K21	Outlines how print materials and chemicals are stored, handled and packaged to ensure safety and quality is maintained. (K21)	Describes issues that can arise and their impacts on the product and the business if materials or chemicals are not handled, transported or stored correctly. (K21)
Maintenance K22	Describes the maintenance requirements for press machinery and outlines the risks to the business and staff if maintenance is not completed according to manufacturer's specifications. (K22)	
Option 3 – Post-press operative grading descriptors		
Finishing equipment K25	Describes the purpose of finishing equipment identifying the benefits and drawbacks of	

	different finishing machinery including their safety considerations. (K25)	
Maintenance K26	Describes the maintenance requirements for the finishing equipment they use within their workplace and identifies the risks to the business and staff if maintenance was not undertaken according to the manufacturer's recommendation. (K26)	Describes the maintenance requirements and risks for the finishing equipment of at least 2 different types of finishing equipment and explains how maintenance of equipment benefits the business. (K26)
Fail: apprentices will fail if they do not demonstrate all the pass descriptors		

End-point assessment method 3: Multiple-choice test

KSBs	
Core K2 K3 K4 K6 K7 K10 K11	Test mark will determine whether apprentice achieved fail or pass or distinction.
Option 1: Pre-press operative K18	
Option 2: Press operative K20	
Option 3: Post-press operative K23 K24	