

# End-point assessment plan for Technical Dyer & Colourist apprenticeship standard

Apprenticeship standard reference number	Level of this end point assessment (EPA)	Integrated
ST0678	4	No

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## Introduction and overview

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

Full time apprentices will typically spend 36 months on-programme (before the gateway) working towards the occupational standard, with a minimum of 20% off-the-job training. All apprentices will spend a minimum of 12 months on-programme.

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

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

Apprentices must have achieved all qualifications mandated in the Technical Dyer Colourist occupational standard.

The qualifications required are:

- Textile Colouration Certificate level 4

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

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

The EPA consists of 2 discrete assessment methods.

The individual assessment methods will have the following grades:

### **Assessment method 1:** Workplace Observation & Questioning

- Pass
- Fail
- Distinction

### **Assessment method 2:** Professional Discussion

- Pass
- Distinction
- Fail

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

- Pass
- Fail
- Distinction

## EPA summary table

<b>On-programme</b> (typically, 36 months)	Training to develop the occupation standard's knowledge, skills and behaviours.
<b>End-point Assessment Gateway</b>	<ul style="list-style-type: none"> <li>• Employer is satisfied the apprentice is consistently working at, or above, the level of the occupational standard.</li> <li>• English/Mathematics Level 2</li> <li>• Textile Colouration Certificate level 4</li> </ul> <p>Apprentices must provide:</p> <ul style="list-style-type: none"> <li>• A completed portfolio of evidence is a compulsory requirement of the EPA. It supports the EPA Professional Discussion assessment method</li> </ul> <p>See pages 8-10 for more detail on the requirements for the portfolio of evidence</p>
<b>End Point Assessment</b> (which would typically take 3 months)	<p>Assessment Method 1: Workplace Observation &amp; Questioning</p> <p>With the following grades:</p> <ul style="list-style-type: none"> <li>• Pass</li> <li>• Fail</li> <li>• Distinction</li> </ul> <p>Assessment Method 2: Professional Discussion (supported by a portfolio of evidence).</p> <p>With the following grades:</p> <ul style="list-style-type: none"> <li>• Pass</li> <li>• Distinction</li> <li>• Fail</li> </ul>
<b>Professional recognition</b>	<p>Aligns with recognition by:</p> <p>TEXTILE INSTITUTE (LICENCIATESHIP)</p>

## Length of end-point assessment period:

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

The portfolio should be submitted no later than 2 weeks after the start of the EPA period.

If an EPA assessment method is failed, it should be resat/retaken within the EPA period and in-line with the requirements set out in this assessment plan (see 'Resits & Re-takes' section for more information).

## Order of assessment methods

The assessment methods can be delivered in any order.

## Gateway

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

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

- English and mathematics at level 2.

Apprentices must achieve the following approved qualifications as mandated in the occupational standard:

- Textile Colouration Certificate level 4

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

For Workplace Observation & Questioning:

- no specific requirements

For Professional Discussion

Submission of completed portfolio of evidence authenticated by employer.

The portfolio of evidence will comprise of naturally occurring evidence gathered during the on-programme period from their workplace, backed up by relevant company processes and procedures.

See page 8-10 for more detail on the requirements for the portfolio of evidence.

# Assessment Methods

## Assessment Method 1: Workplace Observation & Questioning

### Method 1: Workplace Observation & Questioning

#### Overview

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

One assessor may observe up to a maximum of 2 apprentices at any one time, to allow for quality and rigour.

The rationale for this assessment method is:

The Technical Dyer and Colourist is a practical occupation and therefore this assessment method allows the apprentice to showcase their practical skills where observing someone in the workplace undertaking real work is the most valid assessment method.

#### Delivery

The observation will take 3 hours (inclusive of comfort breaks). The observation may be split into discrete sections as identified below and would be held over a maximum of 1 working day. The length of a working day is typically considered to be 7.5 hours. The assessor has the discretion to increase the time of the observation by up to 10% to allow the apprentice to complete a task at the end of this component of the EPA. In advance of the observation, apprentices must be provided with information on the format of the observation, including timescales.

The following activities **MUST** be observed during the observation:

- Analyse parameters to determine job specification
- Configure textile machinery
- Manage/Optimise equipment efficiency
- Manage machinery dye cycles, dyestuffs, chemicals, recipes, recipe production/formulation, fibres, end use of fibre, testing, quality control, operation of machinery/computer system.

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 and will ask questions following the completion of each activity
- The apprentice will typically be observed within their own workplace, using ONE piece of textile manufacturing machinery (weaving or finishing machinery)
- Should the equipment break down, the test will be temporarily stopped, so as not to disadvantage any one apprentice from another.

The independent assessor should ask the apprentice a minimum of 3 open competency-based questions after the completion of each activity to assess those KSBs associated with it (12 in total to cover the whole observation). Additional follow-up questions to seek clarification and probe further detail and address KSBs may also be asked at this point.

KSBs that did not naturally occur during the 4 observed activities can instead be covered by questioning at the end of the observation, but these questions must be asked within a time period not exceeding 30 minutes after the scheduled observation time.

Questions will be determined by the independent assessor taking account of what has been observed.

Questioning must be conducted under controlled conditions i.e. quiet space, free of distractions and influence. It is anticipated that EPAO will use the apprentice's employer's facilities to carry out the questioning.

KSBs observed and answers to questions must be documented by the independent assessor. The Observation and Questioning will be graded fail, pass or distinction. The Independent assessor must use the grading criteria within this plan.

EPAOs must ensure that apprentices are observed on different processes in the case of re-sits/re-takes. A sample question bank for independent assessors must be developed by EPAOs. This question bank should be of sufficient size to prevent predictability and reviewed at least once a year.

### Other relevant information

There may be breaks during the observation to allow the apprentice to move from one location to another as required. This may include the need to transfer to a workplace other than the employer's own premises e.g. premises of a client or alternative employer's premises.

### Support Material

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

- Outline of the observation's requirements
- Marking materials
- Briefing document for apprentice and employer outlining the parameters of the task.

### Venue

The observation can take place in:

- employer's premises
- workplace other than the employer's own premises (e.g. premises of a client)
- Typically, the observation will take place in the apprentice's normal place of work using familiar equipment and materials. It is expected that apprentices will be assessed at their workplace to ensure they are able to demonstrate competence in the real work environment. Where this is not possible (for example due to health and safety reasons), the EPAO is responsible for ensuring that the apprentice is assessed under normal conditions, in a familiar environment, which is representative of the apprentice's workplace. The External Quality Assurance provider is responsible for determining the impact of an alternative location on the validity and comparability of end-point assessments. Where an apprentice's workplace does not provide the opportunity to observe sufficient processes, an alternative environment may be used; for example, another employer or test centre facility. Where the employer's premises are not used, the EPAO is responsible for ensuring the test environment is representative of the apprentice's workplace and can facilitate EPA.

Specific venue requirements that must be in place include:

- Location must have access to specialist production and ancillary equipment which the apprentice is familiar with (e.g. must have appropriate dyeing and colouration equipment and machinery to carry out this end-point Assessment).

- Location must have appropriate facilities for secure assessing (e.g. free from distraction, outside influences and ensuring there is no opportunity for cheating).
- Questioning must be conducted under controlled conditions i.e. quiet space, free of distractions and influence.
- It is anticipated that EPAO will use the apprentice's employers' facilities to carry out the questioning. However, where it is not possible to carry out the observation at the employer's premises the observation can take place at an approved EPAO centre in a simulated environment. The simulation is allowed only in exceptional circumstances (for example, where for cost, workplace availability, or health and safety reasons it is not appropriate to use the apprentice's workplace). The practical observation will be carried out by an independent assessor, approved by the EPAO, and observations must be conducted in a realistic work situation under normal conditions.
- KSBs observed and answers to questions must be documented by the independent assessor.
- There must be a facility at the location to enable observation of dye/colour fibre and the discard of effluent.

### Question Development

EPAOs will create open questions to assess related underpinning knowledge, skills and behaviours. They must develop '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.

## Assessment Method 2: Professional Discussion (supported by a portfolio of evidence)

(This Method has 1 component)

### Method 2 Component 1: Professional Discussion (supported by a portfolio of evidence)

#### Overview

This assessment will take the form of a professional discussion, which must be appropriately structured to draw out the best of the apprentice's competence and excellence and cover the KSBs assigned to this assessment method. It will involve the questions that will focus on coverage of prior learning or activity.

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

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

The rationale for this assessment method is:

This method allows a wider breadth of knowledge than can be covered in a single observation. In order for employers to be confident that learners have understood and can articulate the requirements of this occupation, a professional discussion with the learner is the most suitable method to use to assess competence. A professional discussion allows the KSBs, which may not naturally occur in every workplace or may take too long to observe, to be assessed. A professional discussion is the most appropriate method to identify the apprentice's level of understanding of associated textile manufacturing operations and the KSBs assigned to this method of assessment.

#### Delivery

The independent assessor will conduct and assess the professional discussion.

The professional discussion must last for 60 minutes. The independent assessor has the discretion to increase the time of the professional discussion by up to 10% to allow the apprentice to complete their last answer. Further time may be granted for apprentices with appropriate needs, in-line with the EPAO's Reasonable Adjustments policy.

During this method, the independent assessor must combine questions from the EPAO's question bank and those generated by themselves and based on information provided in the portfolio of evidence.

#### Portfolio of Evidence Requirements

Employers and training providers are free to devise their own version of the portfolio of evidence. It will typically include the following information (***please note that this is not a definitive list; other evidence sources are permissible***):

- The name of the apprentice
- Details of the apprentice's workplace
- Specific evidence that is mapped to the knowledge, skills and behaviours of this standard as required by this assessment method (evidence can be provided through a range of sources, for example work reviews, manager's feedback, customer feedback, reports, documentation, records produced as part of the work activity). Examples of evidence include health & safety training records, risk assessment assignments, bill of materials/work docket, sample products/test pieces showing



difference processes, photographs and videos, witness statements, planning diaries, employer reviews, progress review documentation and feedback from colleagues and/or clients.

- Records of learning activities and documentation such as technical training courses
- Confirmation from the apprentice's line manager or other competent person designated by the employer confirming authenticity and that the project/tasks completed by the apprentice met the employer requirements
- A range of qualitative evidence submissions (suggested volume of between 10 and 15 pieces). Each piece of evidence can cover multiple knowledge, skills and behaviours.

The apprentice's Manager/Mentor will typically support the development of the portfolio in accordance with company policy and procedures, although the assessment organisation will provide further guidance on the content.

The professional discussion will be conducted as set out here:

- One-to-one discussion with the independent assessor, in a quiet environment.
- There will be core questions asked of all apprentices, but supplementary questions are allowed to seek clarification. The contents of the portfolio of evidence will be used to support the development of the Independent Assessor's questions.
- To enable the independent assessor sufficient time to plan, apprentices must submit their portfolio to their EPAO at least two weeks before the scheduled professional discussion.
- It must assess apprentices against the relevant KSBs for AM2 as specified in the mapping table
- The professional discussion will be in the format of question and answer.
- Apprentices must be asked a minimum of 12 questions in total during the discussion (3 questions per area – see below). Questions must cover the following areas:
  - Quality assurance and quality control activities
  - Production planning and operation
  - Industry knowledge
  - Processes for textile manufacturing
- The professional discussion must last 1 hour. The assessor will have the discretion to increase the time of the discussion by up to 10% to allow the apprentice to complete their last answer. Further time may be granted for apprentices with appropriate needs, in-line with the EPAO's Reasonable Adjustments policy.
- The professional discussion may be conducted remotely using video-conferencing facilities.
- 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 in some way.
- The professional discussion will be graded fail, pass or distinction.

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

The independent assessor will make all grading decisions.

For the supporting portfolio of evidence, the following is required:

- The portfolio of evidence will comprise of naturally occurring evidence gathered during the on-programme period from the apprentice's workplace, backed up by relevant company processes and procedures.
- The portfolio of evidence can be in a paper based or electronic format.
- The portfolio must provide evidence of each KSB mapped to this assessment method.
- It is expected that some pieces of evidence may cover multiple KSBs.

- It is the quality of the evidence provided that is important, not the volume.
- It is recommended that the employer signs off the portfolio of evidence, thereby authenticating it and confirming that the apprentice is ready to take the EPA
- Evidence must relate to work completed in full or part by the apprentice – where ‘in part’ the apprentice’s contribution must be clearly detailed.
- Evidence generated in the workplace and training environment is allowable.
- Supporting evidence can be used to inform the professional discussion and must include relevant and sufficient evidence to cover the KSBs assigned to the professional discussion, as detailed in the mapping of KSBs on page.

## Venue

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

## Other relevant information

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

EPAOs must ensure that apprentices have a different set of questions in the case of re-sits/re-takes. Independent assessors must be developed and trained by the EPAO in the conduct of professional discussion and reaching consistent judgement.

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

- An assessment specification and guidance including recording documentation.
- Information sheet on what 'discussion-based practice' covers.
- The professional discussion can be recorded (audio or video) if all parties agree. Where permission is not given it is permissible for another independent assessor to be present to document evidence presented and record the response to questions. Where a second independent assessor is used to act as a scribe, they must not be involved in any assessment decision.

## Weighting of Assessment Methods

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

# Grading

## Assessment Method 1: Workplace Observation & Questioning

Numbers in brackets indicate KSBs covered in the standard

### **Fail Criteria – Apprentice does not meet a minimum of Pass Criteria**

<b>Area</b>	<b>Pass Criteria</b> <i>Apprentice demonstrates all the following:</i>	<b>Distinction Criteria</b> <i>In addition, building on the pass criteria, apprentice demonstrates all the following:</i>
<b>Health and Safety</b> (K7, S13)	<p>Works in line with general workplace health, safety, complies with the organisation's environmental welfare requirements and can explain the impact of processes and materials on the environment.</p> <p>Follows employer's instructions to minimise waste.</p>	<p>Can describe the potential consequences to self and as importantly – others, of failure to adhere to health and safety requirements when undertaking dyeing and colouration duties.</p>
<b>Planning, Programming and Stock Control</b> (S2, S12, B7)	<p>Prepares the production area in line with client and company expectation. Identifies the appropriate tools, machinery &amp; equipment needed prior to manufacturing. Prepares the work area and work flow to maximise resource efficiency. Undertakes checks, recognises and understands production plans and rectifies any barriers to effective production before commencing.</p> <p>Create and monitor chemical and dye stock prior to production and operates in line with employer's/manufacture's instructions including timing and quality tolerances.</p> <p>Programmes dye machinery &amp; equipment in line with employer's/manufacture's recommended practice.</p> <p>Discuss the organisation's operation plans to ensure that dye and colour processes meet minimum expectations.</p>	<p>Evidence how machinery operations are undertaken in an analytical manner, citing specific variations on machine capability to meet client objectives.</p> <p>Explain how the apprentice has proactively planned production and worked above the expected level of technical input to resolve advanced production barriers such as mechanical fault, dye batch recipe amendment or temperature fluctuation analysis.</p> <p>Operation plans are discussed, and analytical reporting is carried out in line with procedures.</p>
<b>Personnel, Client &amp; Self-Management</b> (S3, S9, S10, B2)	<p>Describes how the occupational role supports the business's core objectives. Explains how self-directed performance impacts on the business including quality and operational targets. Demonstrates the interpersonal skills needed to be an efficient and effective team member</p> <p>Can articulate the company's strategic objectives, operational plan and production expectations throughout. Explains the importance of being punctual and reliable and the consequences of absence from work and late arrival.</p>	<p>Can explain in detail, the different occasions where team working or individual working can support the overall business operation, identifying roles, responsibilities of self and the team in meeting client needs (e.g. dealing with fault, poor service, changing parameters, disruption and errors etc)</p> <p>Demonstrates a capability to assist colleagues and/or use their own initiative to solve work related problems such as during machinery downtime, production problems or machinery failure.</p> <p>Articulates communication in a way that arrives at educated and informed choices, maximising business capability and working within the expectations of the business operation to improve performance through clear lines of communication.</p>

	<p>Can describe and demonstrate problem solving experiences for customers and report findings in a professional manner. Works with colleagues in a way that assures tasks are completed efficiently and safely as required, e.g. when quality in dye consistency affects production.</p> <p>Demonstrates a positive, proactive attitude and inclusive approach to work colleagues and the workplace, e.g. when working across dye colouration for clarity and accuracy of common approaches across departments.</p> <p>Provides information to colleagues as required, in a way that can be understood, e.g. appropriate communication methods</p>	
<p><b>Manufacture / Produce</b> (K1, K8, K15, S1, S5, S6, S7, S8, S11, B4, B5)</p>	<p>Articulates clearly, the background of textile dyeing and colouration across the world and how the supply chain deals with goods and services.</p> <p>Demonstrates the correct techniques for handling dyes and chemicals correctly noting the characteristics of chemicals, including dye volatility, cross contamination etc).</p> <p>Uses production equipment (hoists and dispensary equipment) within its limitations to produce high quality, consistent results for safe production of dyes and chemicals in pressure systems and atmospheric and the process they must go through in textile manufacturing.</p> <p>Understanding and demonstrate how dyes behave in dye vessels and other machinery.</p> <p>Identifies and rectifies faults to ensure production requirements are met.</p> <p>Records all results of performance in line with industry practice.</p> <p>Uses bespoke ICT systems and control panels on machinery to programme and produce dyes and colours.</p>	<p>Justify the manufacturing techniques used that affect dye production such as movement methods, temperature control and housekeeping.</p> <p>Describes the characteristics and performance of different materials, differences between material faults and the rectification processes. Can articulate in-depth analysis of performance and possible remedies in fault rectification within the manufacture process and the importance in relation to product quality.</p> <p>Completes directly observed tasks without the need to re-do work, with no/minimal waste and no quality errors over a consistent period of time.</p> <p>Can identify weakness within the production process e.g. product quality, minimising waste and suggest feasible, cost effective improvements to appropriate team members.</p> <p>Adapts attitude and approach to work when met with conflicting issues, customer problems and production difficulties in a way that is befitting of the organisation and its mission, e.g. customer complaints, stock delays or dye conflict and contamination.</p> <p>Demonstrates positive activities that change, adapt and meet production deadlines for clients, e.g. through machine change, production failure or customer priorities.</p> <p>Develops the technology capability within bespoke ICT systems and control panels to obtain greater output (such as efficiency checks, calibration and set up) working with the team to improve batch reports, fault analysis and quality.</p>

<p><b>Quality Control &amp; Analysis</b></p> <p>(S1, S4, S14, S15)</p>	<p>Works in line with manufacturer's expectations for quality control of plant and machinery, e.g. maintains safe Operating Procedures during production and quality checks.</p> <p>Analyses performance of production and reports to appropriate individuals on improvement, downtime and maintenance.</p> <p>Carries out analytical assessments of production process and can identify key factors in quality provision such as flow control, valve pressures and dye consistency.</p>	<p>Can logically and strategically adapt production scheduling, machinery performance and production output based on a high degree of performance analysis to improve operation integrity.</p> <p>Can identify trends or faults from quality assessments that can improve the speed, efficiency or quality of the finished product.</p>
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## Assessment method 2: Professional Discussion

Numbers in brackets indicate KSBs covered in the standard

### Fail Criteria – Apprentice does not meet a minimum of Pass Criteria

Area	<b>Pass Criteria</b> <i>Apprentice demonstrates all the following:</i>	<b>Distinction Criteria</b> <i>In addition, building on the pass criteria, apprentice demonstrates all the following:</i>
<b>Health and Safety</b> (K4, S13, B3)	<p>Identifies the main Health, Safety and Environmental considerations for dye technicians including (but not limited to) Control of Substances Hazardous to Health (COSHH), the Health &amp; Safety at Work Act (HASAWA) and the Registration, Evaluation, Authorisation and restriction of Chemicals (REACH).</p> <p>Provides examples of when they have identified, analysed, reported and improved health, safety and welfare in the workplace, including examples of the environment impact of waste, dye batch management, stock security, dye contamination and other processes that affect textile dye and colouring occupations.</p> <p>Discuss how they work in a safe manner, following workplace procedures and does not compromise the safety of self and others.</p>	<p>In addition to meeting the pass criteria, demonstrates an understanding of where to make significant improvements to health, safety and environmental processes within the workplace including action taken to improve audit of checks for COSHH and REACH regulations, the related equipment and a detailed, analytical understanding of how to implement improvements.</p> <p>In additional to the identification of risk, analyse and evaluate non-compliances, advising others of how to make their practice safer.</p> <p>Takes a proactive lead in safety and welfare matters and can identify, analyse, reduce or remove potential hazard and risk consequences.</p>
<b>Planning, Programming and Stock Control</b> (K2, K3, K13)	<p>Identifies the in-company strategies for manufacturing, using appropriate working arrangements for pre-production. Describes how the company obtains its resources, and how production is planned.</p> <p>Manages, maintains and provides ownership of the work area.</p> <p>Demonstrates understanding of the process flow and how to obtain tools, equipment and machinery to produce dyes. Demonstrates a consistent approach to planning and production preparation.</p>	<p>In addition to meeting the pass criteria, the apprentice will be able to correctly and confidently describe production machinery used in dye plant operations, its purpose, the maintenance requirements for machinery to maximise efficiency of production and analyse how mechanical actions of machinery affect the final output.</p>
<b>Manufacture/ Produce</b> (K5, K6, K9, K11)	<p>Explains the full production cycle and how the supply chain operates in textile dye production.</p> <p>Recognises the complexity of the core material usage (dyes and chemicals) and how they interact in machinery. Deals with component faults and takes appropriate corrective action to rectify, e.g. makes appropriate dye adjustments or reports to senior team.</p> <p>Handles materials correctly in accordance with their behaviour and characteristics (chemical and dye volatility, cross contamination etc).</p> <p>Uses dye manufacturing terminology correctly and can articulate this to the team. Complies with recording requirements, and within set timescale/tolerance requirements.</p>	<p>Produces analysis reporting of manufacturing output to senior management (in terms of capacity, capability, speed, efficiency and improvement opportunities).</p> <p>Demonstrates significant senior level interaction in assessing the effectiveness of dye manufacture through examples of team meetings, reports and dialogue with colleagues and discuss the findings of any analysis and evaluation.</p> <p>Targets of preparation and production planning are exceeded, mapped against company profiles. Speed and application are consistently precise.</p>

	<p>Recognises work that does not meet quality standards and addresses the production process, informing appropriate individuals in the team.</p> <p>Describes potential changing working environments, the changing dyeing production demands and how to deal with them.</p>	<p>Provides detail of the textile colouration market and how that can affect manufacture (such as purchasing, export and import tariff and duty, ethical sourcing, temperature changes that affect dyeability etc.).</p>
<p><b>Quality Control &amp; Analysis</b></p> <p>(K10, K12, K14, B1, B6)</p>	<p>Meets the industry's expectations for quality processes, mechanics, measurements and use of instruments used in dye processing e.g. speed, efficiency, processing, mixing and preparing dyes for production and quality testing.</p> <p>Undertakes first stage testing and analysis of dye and colouration samples, including the results that determine the bulk production schedules.</p> <p>Ensure that the quality process meets the expectations of client confidentiality, honouring consistent professionalism.</p>	<p>Reporting steers the production team and highlights full and forensic analysis of textile dye testing techniques, e.g. through analysed documentation provided at team briefings and meetings.</p> <p>Analyse and evaluate results to force change or improve products or services.</p>

## Overall EPA grading

All EPA methods must be passed for the EPA to be passed overall.

The assessment methods outlined in this plan are equally weighted. The EPAO must combine the grades of the two assessment methods to determine the overall EPA grade. To achieve an EPA pass, apprentices must achieve a pass or distinction in the workplace observation and the professional discussion. A fail in any assessment method will result in an EPA fail. To achieve an EPA distinction, apprentices must achieve a distinction in both the observation and professional discussion. See grading combinations table below. 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	Assessment Method 2	Overall Grading
Any grade	Fail	Fail
Fail	Any grade	Fail
Pass	Pass	Pass
Pass	Distinction	Pass
Distinction	Pass	Pass
Distinction	Distinction	Distinction



## Roles and Responsibilities

Role	Responsibility
Apprentice	<ul style="list-style-type: none"> <li>• complete the on-programme element of the apprenticeship</li> <li>• prepare for and complete the EPA</li> </ul>
Employer	<ul style="list-style-type: none"> <li>• identify when the apprentice is ready to pass the gateway and undertake their EPA</li> <li>• notify the EPAO that the apprentice has passed the gateway</li> </ul>
EPAO	<p>As a minimum EPAOs should:</p> <ul style="list-style-type: none"> <li>• appoint administrators and markers to administer/invigilate and mark the EPA</li> <li>• provide training and CPD to the independent assessors they employ to undertake the EPA</li> <li>• have no direct connection with the apprentice, their employer or training provider i.e. there must be no conflict of interest</li> <li>• have processes in place to conduct internal quality assurance and do this on a regular basis</li> <li>• organise standardisation events and activities in accordance with this plan's IQA section</li> <li>• organise and conduct moderation of independent assessors' marking in accordance with this plan</li> <li>• have, and operate, an appeals process</li> </ul>
Independent assessor	<p>As a minimum an Independent assessor should:</p> <ul style="list-style-type: none"> <li>• be independent of the apprentice, their employer and training provider(s) i.e. there must be no conflict of interest</li> <li>• hold or be working towards an independent assessor qualification e.g. A1 and have had training from their EPAO in terms of good assessment practice, operating the assessment tools and grading</li> <li>• have the capability to assess the apprentice at this level</li> <li>• attend the required number of EPAO's standardisation and training events per year (as defined in the IQA section)</li> </ul>
Training provider	<p>As a minimum the training provider should:</p> <ul style="list-style-type: none"> <li>• work with the employer to ensure that the apprentice is given the opportunities to develop the KSBs outlined in the standard and monitor their progress during the on-programme period</li> <li>• advise the employer, upon request, on the apprentice's readiness for EPA via the gateway</li> </ul>



## Internal Quality Assurance (IQA)

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

- appoint independent assessors who have a specific professional, practical and theoretical experience of the coloration industry.
- appoint independent assessors who have recent relevant experience of the occupation/sector at least the same level as the apprentice gained in the last three years or significant experience of the occupation/sector.
- appoint independent assessors who are competent to deliver the end-point assessment
- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- have robust quality assurance systems and procedures that support fair, reliable and consistent assessment across the organisation and over time.
- operate induction training and standardisation events for independent assessors when they begin working for the EPAO on this standard and before they deliver an updated assessment method for the first time

## Re-sits and re-takes

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

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

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

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

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

Where any assessment method has to be re-sat or re-taken, the apprentice will be awarded a maximum EPA grade of distinction.

## Affordability

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

- using an employer's premises
- assessing 2 apprentices simultaneously
- use of online assessment

## Professional body recognition

This apprenticeship is designed to prepare successful apprentices to meet the requirements for registration as Licentiate Member of the Textile Institute (TI).

## Reasonable adjustments

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

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

KSB Code	KNOWLEDGE	MAPPED AGAINST
K1	Dyeing and colouration of textiles/fabrics in the overall textile supply chain including the history of dyeing in the UK, the dyeing techniques have evolved and the common practices of dyehouse operations.	AM1
K2	Strategies for manufacturing including global resourcing, strategic planning, management culture and expectation and plant operations that effect the manufacturing process.	AM2
K3	Product requirements used in dyeing and colouration of yarns and fabrics including production application, variety of use, innovation, cost control and pricing fluctuation.	AM2
K4	Risk assessment & management, hazard identification & rectification, safe working systems and an understanding of the legal frameworks that affect textile production, such as Control of Substances Hazardous to Health Regulations, (CoSHH), Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (REACH) and any other statutory regulations.	AM2
K5	Fibre processes, fibre types and specific dyes for coloration manufacturing and how fibres react under chemical processes.	AM2
K6	Background and nature of the global textile industry, including how the textile colouration markets are served worldwide, the goods that are procured, the services to business, customer expectations and who the supply chain works.	AM2
K7	Hazard protocols including safe storage of dyestuffs and chemicals.	AM1
K8	Dye and colour production equipment used for dyeing and colouring fibres, yarns and fabrics for processing.	AM1
K9	Colour chemistry in the manufacturing process and how it affects the finished product. This includes the technical knowledge of protein fibres, cellulosic fibres, synthetic fibres, and man-made fibres and the structures of dye molecules.	AM2
K10	Chemical and physical theories that underpin textiles from raw material through to finished coloured fabric/garment including colour physics, colour measurement and the implementation in a laboratory and production setting.	AM2
K11	Process of applying chemistry to textile colouration including reactions, pH control, methodology and rationale including which fibre with which dye you would select for usage.	AM2
K12	Quality and environmental standards appropriate for colour fastness both legislated and advisory in relation to effluent, safe chemical usage, organic textiles and other materials.	AM2
K13	Machinery and engineering design, the flow and process of production, dye pressure, suitability, and product preparation used within dye/colour machinery and the effect of processing on product quality.	AM2

K14	Environmental controls and implications of failure.	AM2
K15	Use a range of industry ICT systems to determine the correct dye colour	AM1
<b>KSB code</b>	<b>SKILL</b>	<b>MAPPED AGAINST</b>
S1	Create and monitor dye profiles for batch production and batch reporting, ensuring that appropriate decision making to tackle fault or quality issues is effectively undertaken.	AM1
S2	Develop operational plans that affect dye manufacturing, including the completion of specialist, technical reports and data to articulate results.	AM1
S3	Perform effectively within a team environment and build strong positive working relationships with internal and external customers, colleagues, stakeholders and suppliers to ensure the mission and the ethos of the company is maintained.	AM1
S4	Identify and formulate problem solving technical problems associated with errors or critical failures within the coloration industry.	AM1
S5	Carry out technical dye profiling for batch production, batch reporting analytics and problem solving/decision making to tackle fault or quality issues.	AM1
S6	Use pressure (jet) and atmospheric dyeing techniques and machinery to produce dyed fibres, yarns and fabrics including jig/winch, loose stock, vat, hank, yarn and top dyeing variations.	AM1
S7	Identify types of dye process needed to ascertain variations and differences of natural and man-made fibres, such as polyesters, wools, cottons and nylons.	AM1
S8	Carry out technical steps in the manufacturing selection process to ensure non-routine dye treatments and application techniques are consistent.	AM1
S9	Effective team performance, building positive relationships with stakeholders to ensure the mission and the ethos of the company is maintained throughout the customer journey.	AM1
S10	Effectively communicate at all levels, detailing dye and colouration information with clarity, logic and accuracy demonstrating a high degree of technical detail to stakeholders.	AM1
S11	Maintain atmospheric and pressure dyeing systems, ensuring that presses, hoists and dispensary equipment including effluent control are managed and maintained, machinery utilisation is maximised and downtime minimised through effective maintenance.	AM1
S12	Contribute to operational plans including specialist, technical reports and data to reinforce results and decision making such as Identifying priorities that affect the running of production.	AM1

S13	Scrutinise the impact of environment science on dyeing and colouration processes and manage treatments that impact on the environment (such as spillage, effluent leakage, process controlling, implication and remedial activity).	AM2
S14	Analyse information, formulate judgements and articulate reasoned arguments through reflection, review and evaluation.	AM1
S15	Use of relevant ICT systems and relevant machinery such as flow control, valve pressure, valve opening machines and spectrometers to determine the correct dye colour.	AM1
<b>KSB code</b>	<b>BEHAVIOUR</b>	<b>MAPPED AGAINST</b>
B1	Acts with honesty and integrity as key indicators of competence whilst promoting a collective ownership of performance through a 'zero error/right first time' approach.	AM2
B2	Flexibility and adaptability in the workplace, showing positivity in dealing with changing patterns to meet business priorities.	AM1
B3	Responsible approach to manage, mitigate and avoid risk through self-awareness, openness and sensitivity to diversity in terms of function, people, culture, business and management activity.	AM2
B4	Show energy and enthusiasm in the role including dealing with setbacks, coping under pressure.	AM1
B5	Self-manage work constraints in terms of resource, planning, behaviour, motivation and enterprise.	AM1
B6	Ensure that client confidentiality is honoured and maintained consistently.	AM2
B7	Logical thinker, using cognitive skills to analyse information and identify solutions.	AM1