IfATE

Shaping skills training

EPA Draft Preview

DRAFT END-POINT ASSESSMENT PLAN FOR THE DATA TECHNICIAN APPRENTICESHIP

ST0795/V1.2

APPRENTICESHIP REFERENCE NUMBER	LEVEL OF THIS END-POINT ASSESSMENT (EPA)	INTEGRATION
ST0795	3	None

Contents

Introduction and overview

This document explains the requirements for end-point assessment (EPA) for the data technician apprenticeship. End-point assessment organisations (EPAOs) must follow this when designing and delivering the EPA.

Data Technician apprentices, their employers and training providers should read this document.

A full-time data technician apprentice typically spends 24 months on-programme. The apprentice must spend at least 12 months on-programme and complete the required amount of off-the-job training in line with the apprenticeship funding rules.

The EPA should be completed within an EPA period lasting typically 3 months.

The apprentice must complete their training and meet the gateway requirements before starting their EPA. The EPA will assess occupational competence.

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

This EPA has 2 assessment methods.

The grades available for each assessment method are below.

Assessment method 1 - scenario demonstration with questioning :

- fail

- pass

- distinction

Assessment method 2 - professional discussion underpinned by a portfolio of evidence:

- fail

- pass

- distinction

The result from each assessment method is combined to decide the overall apprenticeship grade. The following grades are available for the apprenticeship:

- fail

- pass

- merit

- distinction

EPA summary table

On-programme - typically 24 months	The apprentice must: • complete training to develop the knowledge, skills and behaviours (KSBs) outlined in this apprenticeship's standard • complete training towards English and mathematics qualifications in line with the apprenticeship funding rules • compile a portfolio of evidence
End-point assessment gateway	The apprentice's employer must be content that the apprentice is occupationally competent. The apprentice must: • confirm they are ready to take the EPA • have achieved English and mathematics qualifications in line with the apprenticeship funding rules For the professional discussion underpinned by a portfolio of evidence, the apprentice must submit a portfolio of evidence. Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.
End-point assessment - typically 3 months	**The grades available for each assessment method are below** Scenario demonstration with questioning : • fail • pass • distinction Professional discussion underpinned by a portfolio of evidence: • fail

	• pass • distinction **Overall EPA and apprenticeship can be graded:** • fail • pass • merit • distinction
Re-sits and re-takes	The details for re-sits and re-takes are below: • re-take and re-sit grade cap: merit • re-sit timeframe: typically 3 months • re-take timeframe: typically 6 months

Duration of end-point assessment period

The EPA is taken in the EPA period. The EPA period starts when the EPAO confirms the gateway requirements have been met and is typically 3 months.

The EPAO should confirm the gateway requirements have been met and start the EPA as quickly as possible.

EPA gateway

The apprentice's employer must be content that the apprentice is occupationally competent. That is, they are deemed to be working at or above the level set out in the apprenticeship standard and ready to undertake the EPA. The employer may take advice from the apprentice's training provider, but the employer must make the decision. The apprentice will then enter the gateway.

The apprentice must meet the gateway requirements before starting their EPA.

They must:

• confirm they are ready to take the EPA

• have achieved English and mathematics qualifications in line with the apprenticeship funding rules

- submit a portfolio of evidence for the professional discussion underpinned by a portfolio of evidence

Portfolio of evidence requirements:

The apprentice must compile a portfolio of evidence during the on-programme period of the apprenticeship. It should only contain evidence related to the KSBs that will be assessed by the professional discussion. It will typically contain 5 discrete pieces of evidence. Evidence must be mapped against the KSBs. Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.

Evidence sources may include workplace documentation and records, for example:

- workplace policies and procedures

- witness statements

- annotated photographs

- video clips with a maximum total duration 10 minutes; the apprentice must be in view and identifiable

This is not a definitive list; other evidence sources can be included.

The portfolio of evidence should not include reflective accounts or any methods of self-assessment. Any employer contributions should focus on direct observation of performance, for example, witness statements, rather than opinions. The evidence provided should be valid and attributable to the apprentice; the portfolio of evidence should contain a statement from the employer and apprentice confirming this.

The EPAO should not assess the portfolio of evidence directly as it underpins the **discussion**. The independent assessor should review the portfolio of evidence to prepare questions for the **discussion**. They are not required to provide feedback after this review.

Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.

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.

Scenario demonstration with questioning

Overview

In a practical assessment with questions, an independent assessor observes the apprentice completing a task or series of tasks set by the EPAO. The EPAO decides in which of the simulated environments it takes place. The assessment environment must closely relate to

the apprentice's natural working environment. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

The scenario demonstration allows a demonstration of competence and direct testing under controlled conditions. Undertaking the scenario demonstration in a controlled environment allows for pre-determined independent assessor training and assessment resources to be developed and helps to guarantee the required demand and challenges that appear during this end point assessment method.

In this occupation, an observation of practice in a live setting was not possible, as the apprentice is not likely to cover the breadth and depth of practice required. The scenario demonstration avoids situations where occupational activities are not available or do not occur on the day and avoids issues around confidentiality or exposing an organisation's confidential information. The apprentice will be presented with scenarios where they will be able to demonstrate how they can apply their knowledge and skills.

The scenario demonstration allows:

- demonstrated through completing tasks

- consistency of opportunity for apprentices to demonstrate their competence against the mapped KSBs

- it assesses KSBs holistically and objectively

- the apprentice to demonstrate research skills and the ability to use the internet and AI as a tool which is occupational practice

Delivery

One week in advance of the scenario demonstration the EPAO will provide the apprentice and employer with a guidance document, including information on the format of the test, the data set to be used and timescales.

During the scenario demonstration apprentices must be provided with both written and verbal instructions on the tasks they must complete, including the timescales they are working to.

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

The scenario demonstration with questioning will take 90 minutes. The apprentice will be presented with tasks relevant to their normal sphere of work, or sufficiently similar as to be equivalent in complexity, but may use data sets that are in a different business domain to the one in which they normally work.

The EPAO must ensure that all scenarios provided meet the KSBs mapped to this method.

Apprentices must conduct the demonstration in a suitably controlled virtual or physical environment that is a quiet space, free of distractions and influence. The invigilation will be carried out by the independent assessor. The EPAO is required to have an invigilation policy that will set out how the scenario demonstrations will be carried out.

The EPAO is responsible for ensuring the security of scenario demonstrations they administer to ensure the assessment remains valid and reliable.

If the scenario demonstration is via live streaming the EPAO must ensure that the apprentice is unable to gain an advantage through materials in the room, screen sharing or other behaviours.

The EPAO must verify the suitability of the venue for taking carrying out the demonstrations and the identity of the person taking the test. The independent assessor must be unobtrusive whilst conducting the scenario demonstrations in a controlled environment. When questioning the apprentice, the independent assessor must be mindful of their impact on the ability of the apprentice to concentrate and complete the scenarios in the given time.

There will be a minimum of one scenario: the apprentice must demonstrate data gathering, data analysis and data validation operations.

The apprentice will be provided with a scenario description of not more than 250 words accompanied by annexes containing any relevant documentation for example, data source locations, data set content descriptions, context on data provenance and purpose. The independent assessor may supplement the scenario description with verbal guidance for the purpose of clarification but must not give additional guidance on how to interpret or execute the tasks required.

During the scenario demonstration the apprentice can use the internet as a tool to follow instructions to complete tasks. The scenario is classed as "open book" to reflect occupational practice. The apprentice cannot use the internet or AI tools to complete the tasks only to source information and guidance. Assisted technology can be used as a tool but not to complete tasks.

The following activities MUST be observed during the scenario demonstrations as without these tasks it

The scenario demonstration with questioning must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

An independent assessor must conduct and assess the scenario demonstration with questioning .

The independent assessor must only observe one apprentice at a time to ensure quality and rigour. They must be as unobtrusive as possible.

The EPAO must give an apprentice 2 weeks' notice of the scenario demonstration with questioning .

The scenario demonstration with questioning must take 1.5 hours.

The independent assessor can increase the time of the scenario demonstration with questioning by up to 10%. This time is to allow the apprentice to complete a task or respond to a question if necessary.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The scenario demonstration with questioning may take place in parts but must be completed over 1 working day. A working day is typically considered to be 7.5 hours long. The reason for this split is to enable the apprentice to take a short break if needed.

The EPAO must manage invigilation of the apprentice during the assessment, to maintain security of the EPA, in line with their malpractice policy. This includes breaks and moving between locations.

The independent assessor must explain to the apprentice the format and timescales of the scenario demonstration with questioning before it starts. This does not count towards the assessment time.

The independent assessor must observe the following during the practical assessment:

- Data gathering

- Data analysis

- Data validation

These activities provide the apprentice with the opportunity to demonstrate the KSBs mapped to this assessment method.

The independent assessor must ask questions.

The purpose of the questions is:

- to seek clarification where required

- to assess the level of competence against the grading descriptors

Questioning can occur both during and after the practical assessment. The time for questioning is included in the overall assessment time. The independent assessor must ask at least 5 questions. To remain as unobtrusive as possible, the independent assessor should ask questions during natural stops between tasks and after completion of work rather than disrupting the apprentice's flow. The independent assessor must use the questions from the EPAO's question bank or create their own questions in line with the EPAO's training.

The independent assessor can ask follow-up questions to clarify answers given by the apprentice. These questions are in addition to the above set number of questions for the scenario demonstration with questioning .

The independent assessor must make the grading decision. The independent assessor must assess the practical assessment and responses to questions holistically when deciding the grade.

The independent assessor must keep accurate records of the assessment. They must record:

- the KSBs observed

- the apprentice's answers to questions

- KSBs demonstrated in answers to questions

- the grade achieved

Assessment location

The scenario demonstration with questioning must take place in a simulated environment selected by the EPAO for example, the EPAO's premises, a training provider's premises, a training facility in the employer's premises, a test centre or a similar simulated environment. This simulated environment must relate to the apprentice's natural work environment. Equipment and resources needed for the scenario demonstration with questioning must be confirmed to be available by the EPAO, who can liaise with the employer to provide these. They must be in good and safe working condition.

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of tasks and questions in the case of re-sits and retakes, to minimise predictability.

The EPAO must produce the following materials to support the scenario demonstration with questioning :

- independent assessor assessment materials which include:

  - training materials

  - administration materials

  - moderation and standardisation materials

- guidance materials

- grading guidance

- question bank

- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Professional discussion underpinned by a portfolio of evidence

Overview

In the professional discussion, an independent assessor and apprentice have a formal two-way conversation. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

- it assesses KSBs holistically and objectively

- it allows for the assessment of KSBs that do not occur on a predictable or regular basis

- it allows for assessment of responses where there are a range of potential answers

- it can be conducted remotely, potentially reducing cost

- The apprentice can draw upon other supporting evidence in the portfolio to underpin their discussion

Delivery

The professional discussion must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

An independent assessor must conduct and assess the professional discussion.

The purpose of the independent assessor's questions will be to assess the apprentice's competence against the following themes:

Data gathering

Data analysis

Data validation

Distribution and dissemination

Approaches to work

The EPAO must give an apprentice 2 weeks' notice of the professional discussion.

The independent assessor must have at least 2 weeks to review the supporting documentation.

The apprentice must have access to their portfolio of evidence during the professional discussion.

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

The professional discussion must last for 60 minutes. The independent assessor can increase the time of the professional discussion by up to 10%. This time is to allow the apprentice to respond to a question if necessary.

The independent assessor must explain to the apprentice the format and timescales of the professional discussion before it starts. This does not count towards the assessment time.

The independent assessor must ask at least 8 questions. The independent assessor must use the questions from the EPAO's question bank or create their own questions in line with the EPAO's training. Follow-up questions are allowed where clarification is required.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision.

The independent assessor must keep accurate records of the assessment. They must record:

- the apprentice's answers to questions

- the KSBs demonstrated in answers to questions

- the grade achieved

Assessment location

The professional discussion must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises.

The professional discussion can be conducted by video conferencing. The EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

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

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of questions in the case of re-sits or re-takes.

The EPAO must produce the following materials to support the professional discussion underpinned by a portfolio of evidence:

- independent assessor assessment materials which include:
    - training materials
    - administration materials
    - moderation and standardisation materials
    - guidance materials
    - grading guidance
    - question bank
- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Grading

Scenario demonstration with questioning

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Data gathering K4 K5 K6 K13 S1 S2 S3 S4 S5 S6 B4	Explains different data element formats and how their selection can impact precision, analysis and communication, K4.

Describes how to access and extract data as well as select and migrate data from identified sources while using tools to apply basic statistical methods identifying trends and patterns in data, K5, S1, S6.

Explains how to collate and format data in line with industry standards and able to collect, format and save datasets whilst being able to summarise and explain their gathered data all in a thorough and organised approach, K6, S2, S3, B4.

Outlines how to combine data from multiple sources and is able to present these in an appropriate format whilst being able to manipulate data sets as required K13, S5, S4. | Demonstrates a comprehensive understanding of collating, formatting, and saving data in strict adherence to industry standards, while efficiently analysing, summarising, and explaining the gathered data in a highly organised, systematic, and precise manner, K6, S1, S3, B4. |
| Data analysis and validation K14 K15 K16 K26 S7 S8 S13 S16 B3 | Understands how data analysis tools can answer questions, solve problems and have the potential to use automation for repeated data manipulation and is able to apply techniques to identify faults in a data set that could impact its intended purpose, K14, S7. | Demonstrates or describes how automation could be used for repeatable data manipulation to improve efficiency and accuracy, K14, S7. |

	Understands how to filter details knowing by themselves to focus on extracting only the information relevant to the data tasks and purpose, and is able to clean the data then test and assess its integrity to ensure confidence in its accuracy, K15, S13, B3. Explains basic statistical methods which can be applied to extract relevant information from both structured and unstructured data and is able to demonstrate auditing data results involves reviewing the combined dataset to ensure its accuracy, completeness, consistency, and traceability back to the original data, K16, S8. Justify the use of tools or methods that can or have been applied as prompts to research and evaluate data transformation techniques, K26, S16.	

Professional discussion underpinned by a portfolio of evidence

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Data analysis and validation K17 K18	Explains the common data quality issues that can arise and methods of validating data that can soften these issues and the corrective actions that can taken, K17, K18.	N/A
Distribution and dissemination K9 K10 K11 K12 K19 K21 K22 S9 S10 S11	Demonstrate management and presentation tools to visualise data, collaborate using communication technologies to share findings, and apply appropriate methods to help audiences understand data insights and their implications, tailoring communication to meet audience needs, K9, K10, K11, S9. Understands roles within an organization that require access to data or an understanding of data findings, and determine how these roles influence the level of detail needed in data communications and be able to produce clear and consistent documentation of the data shared and actions taken, using standard organisational templates where applicable or required, K12, S10. Outlines the value of data to an organisation, K21. Ensure compliance with legal and regulatory requirements surrounding the use of data by storing, managing, and distributing it in accordance	Possesses a deep understanding of the various roles within an organization that require access to data or an understanding of data findings, and expertly determines how these roles impact the level of detail required in data communications, while consistently producing clear, comprehensive, and well-documented reports on the data shared and actions taken, adhering to standard organizational templates where applicable or required, K12, S10. Understands the implications to organisations and to individuals of non-compliance, K21.

	with data security standards and legislation, K19, S11. Understands the significance of cultural awareness, diversity and accessibility with respect to data sets and any bias that may be present in them, K22.	
Approaches to work S12 S14 S15 B1 B2	Reviews own development needs, work independently, and take responsibility for their tasks, S12, B2. Operate collaboratively in a work environment that leverages the roles, skills, and activities of others, particularly those working with the same data sets or toward a common goal. S14. Demonstrates how they prioritise activities based on the duties to be performed, considering any known or expected impact on others, while managing time effectively to meet deadlines and manage stakeholder expectation, S15, B1.	N/A
Data Gathering K1 K2 K3 K7 K8 K20 K23 K24 K25	Identifies types of data and common sources of data, K1, K2. Identifies types of data and common sources of data, K3. Understand the importance of anonymising data and how to do so, K7, K8.	N/A

	Explains the relationships between data, machine learning, Artificial Intelligence (AI) and Generative AI and how ethical use of data in relation to Artificial Intelligence (AI) and other automated systems is and the potential impacts of unethical data use on an organisation, K20, K24. Outlines the role of data in the context of the digital world, K23.	

Overall EPA grading

Performance in the EPA determines the overall grade of:

- fail

- pass

- merit

- distinction

An independent assessor must individually grade the scenario demonstration with questioning and professional discussion underpinned by a portfolio of evidence in line with this EPA plan.

An independent assessor must individually grade the

- Scenario demonstration with questioning An independent assessor must individually grade the

    - Professional discussion underpinned by a portfolio of evidence

  The EPAO must combine the individual assessment method grades to determine the overall EPA grade.

  If the apprentice fails one assessment method or more, they will be awarded an overall fail.

  To achieve an overall pass, the apprentice must achieve at least a pass in all the assessment methods. Overall grade breakdown detail in table.

  Grades from individual assessment methods must be combined in the following way to determine the grade of the EPA overall.

SCENARIO DEMONSTRATION WITH QUESTIONING	PROFESSIONAL DISCUSSION UNDERPINNED BY A PORTFOLIO OF EVIDENCE	OVERALL GRADING
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Distinction	Pass	Merit
Pass	Distinction	Merit
Distinction	Distinction	Distinction

Re-sits and re-takes

If the apprentice fails one assessment method or more, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, whereas a re-take does. The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and the EPAO should agree the timescale for a re-sit or re-take. A re-sit is typically taken within 3 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 6 months of the EPA outcome notification.

Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

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

The apprentice will get a maximum EPA grade of merit if they need to re-sit or re-take one or more assessment methods, unless the EPAO determines there are exceptional circumstances.

Roles and responsibilities

ROLES	RESPONSIBILITIES
Apprentice	As a minimum, the apprentice should: • complete on-programme training to meet the KSBs as outlined in the apprenticeship standard for a minimum of 12 months • complete the required amount of off-the-job training specified by the apprenticeship funding rules and as arranged by the employer and training provider • understand the purpose and importance of EPA • prepare for and undertake the EPA including meeting all gateway requirements
Employer	As a minimum, the apprentice's employer must: • select the training provider • work with the training provider to select the EPAO • work with the training provider, where applicable, to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs • arrange and support off-the-job training to be undertaken by the apprentice • decide when the apprentice is working at or above the apprenticeship standard and is ready for EPA • ensure the apprentice is prepared for the EPA • ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan • confirm arrangements with the EPAO for the EPA in a timely manner, including who, when, where • provide the EPAO with access to any employer-specific documentation as required for example, company policies • ensure that the EPA is scheduled with the EPAO for a date and time which allows appropriate opportunity for the apprentice to meet the KSBs • ensure the apprentice is given sufficient time away from regular duties to prepare for, and complete the EPA • ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place • ensure the apprentice has access to the resources used to fulfil their role and carry out the EPA for workplace based assessments

	- remain independent from the delivery of the EPA - pass the certificate to the apprentice upon receipt

EPAO	As a minimum, the EPAO must:
	
	- conform to the requirements of this EPA plan and deliver its requirements in a timely manner
	
	- conform to the requirements of the apprenticeship provider and assessment register
	
	- conform to the requirements of the external quality assurance provider (EQAP)
	
	- understand the apprenticeship including the occupational standard and EPA plan
	
	- make all necessary contractual arrangements including agreeing the price of the EPA
	
	- develop and produce assessment materials including specifications and marking materials, for example mark schemes, practice materials, training material
	
	- maintain and apply a policy for the declaration and management of conflict of interests and independence. This must ensure, as a minimum, there is no personal benefit or detriment for those delivering the EPA or from the result of an assessment. It must cover:
	
	  - apprentices
	
	  - employers
	
	  - independent assessors
	
	  - any other roles involved in delivery or grading of the EPA
	
	- have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity for external quality assurance (EQA) purposes
	
	- appoint independent, competent, and suitably qualified assessors in line with the requirements of this EPA plan
	
	- appoint administrators, invigilators and any other roles where required to facilitate the EPA
	
	- deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the delivery or grading of the EPA as specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions where required

	- conduct standardisation with all their independent assessors before allowing them to deliver an EPA, when the EPA is updated, and at least once a year - conduct moderation across all of their independent assessors' decisions once EPAs have started according to a sampling plan, with associated risk rating of independent assessors - monitor the performance of all their independent assessors and provide additional training where necessary - develop and provide assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders - use language in the development and delivery of the EPA that is appropriate to the level of the apprenticeship - arrange for the EPA to take place in a timely manner, in consultation with the employer - provide information, advice, and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA - confirm the gateway requirements have been met before they start the EPA for an apprentice - arrange a suitable venue for the EPA - maintain the security of the EPA including, but not limited to, verifying the identity of the apprentice, invigilation and security of materials - where the EPA plan permits assessment away from the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary - confirm the overall grade awarded - maintain and apply a policy for conducting appeals
Independent assessor	As a minimum, an independent assessor must: - be independent, with no conflict of interest with the apprentice, their employer or training provider, specifically, they must not receive a personal benefit or detriment from the result of the assessment - have, maintain and be able to evidence up-to-date knowledge and expertise of the occupation - have the competence to assess the EPA and meet the requirements of the IQA section of this EPA plan

	- understand the apprenticeship's occupational standard and EPA plan
	- attend induction and standardisation events before they conduct an EPA for the first time, when the EPA is updated, and at least once a year
	- use language in the delivery of the EPA that is appropriate to the level of the apprenticeship
	- work with other personnel, where used, in the preparation and delivery of assessment methods
	- conduct the EPA to assess the apprentice against the KSBs and in line with the EPA plan
	- make final grading decisions in line with this EPA plan
	- record and report assessment outcome decisions
	- comply with the IQA requirements of the EPAO
	- comply with external quality assurance (EQA) requirements
Training provider	As a minimum, the training provider must:
	- conform to the requirements of the apprenticeship provider and assessment register
	- ensure procedures are in place to mitigate against any conflict of interest
	- work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the KSBs as outlined in the occupational standard
	- deliver training to the apprentice as outlined in their apprenticeship agreement
	- monitor the apprentice's progress during any training provider led on-programme learning
	- ensure the apprentice is prepared for the EPA
	- work with the employer to select the EPAO
	- advise the employer, upon request, on the apprentice's readiness for EPA
	- ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan
	- remain independent from the delivery of the EPA

Reasonable adjustments

Reasonable adjustments

The EPAO must have reasonable adjustments arrangements for the EPA.

This should include:

- how an apprentice qualifies for a reasonable adjustment
- what reasonable adjustments may be made

Adjustments must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Special considerations

The EPAO must have special consideration arrangements for the EPA.

This should include:

- how an apprentice qualifies for a special consideration
- what special considerations will be given

Special considerations must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Internal quality assurance

Internal quality assurance refers to the strategies, policies and procedures that an EPAO must have in place to ensure valid, consistent and reliable EPA decisions.

EPAOs for this EPA must adhere to the requirements within the roles and responsibilities table.

They must also appoint independent assessors who:

- have recent relevant experience of the occupation or sector to at least occupational level 4 gained in the last 4 years or significant experience of the occupation or sector

Value for money

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

- completing applicable assessment methods online, for example computer-based assessment
- utilising digital remote platforms to conduct applicable assessment methods
- using the employer's premises
- conducting assessment methods on the same day

Professional recognition

This apprenticeship is not aligned to professional recognition.

Mapping of KSBs to assessment methods

KNOWLEDGE	ASSESSMENT METHODS
K1 Types of data, for example, structured, unstructured, qualitative, quantitative, numeric, strings, compound data types.	Professional discussion underpinned by a portfolio of evidence
K2 Common sources of data, for example, internal, external, open data sets, public and private.	Professional discussion underpinned by a portfolio of evidence
K3 Data storage formats and their importance for analysis, for example, relational database tables, spreadsheets, comma separated value lists, text documents, voice and video.	Professional discussion underpinned by a portfolio of evidence
K4 Data element formats and how their selection can impact precision, analysis and communication, for example, integers, floating point numbers and their precision, scientific notation, date formatting as strings.	Scenario demonstration with questioning
K5 How to access and extract data from already identified sources.	Scenario demonstration with questioning
K6 How to collate and format data in line with organisational standards.	Scenario demonstration with questioning
K7 Why it may be important to anonymise data, for example for privacy, security and regulatory compliance, or to eliminate potential for bias.	Professional discussion underpinned by a portfolio of evidence
K8 How to anonymise data, for example one-for-one replacement of names, addresses or telephone numbers with distinct new values, without changing data structure or relationships.	Professional discussion underpinned by a portfolio of evidence
K9 Management and presentation tools to visualise and review the characteristics of data. Examples include spreadsheets	Professional discussion underpinned by a portfolio of evidence

with tables and charts, dashboarding tools, custom tools for particular data types or contexts.	
K10 Communication tools and technologies for collaborative working, including the ability to share data and findings of data reviews. Examples include dashboards, shared whiteboards, or presentation tools for video conferencing or for face-to-face contexts.	Professional discussion underpinned by a portfolio of evidence
K11 Communication methods, formats and techniques to help audiences understand data findings and their implications, for example written, verbal, non-verbal, presentation, email, conversation, storytelling and active listening.	Professional discussion underpinned by a portfolio of evidence
K12 Roles within an organisation needing access to data or to understand data findings, and how these roles impact the amount of detail needed in data communications, for example, customer, manager, peer; technical and non-technical.	Professional discussion underpinned by a portfolio of evidence
K13 How to combine data from multiple sources. For example using look ups, copy and paste and visualisation tools.	Scenario demonstration with questioning
K14 Understand the capabilities within data analysis tools, for example, spreadsheets or database viewers, for use in answering questions, solving problems, and the potential to use automation for repeated data manipulation.	Scenario demonstration with questioning
K15 How to filter details, focusing on information relevant to the data tasks and purpose.	Scenario demonstration with questioning
K16 Basic statistical methods to extract relevant information from structured and unstructured data, for example, counting rows, calculating the mean and standard deviation of numeric fields, counting words in a document, listing the most common values, calculating percentage contributions or percentage differences between data items.	Scenario demonstration with questioning

K17 Common data quality issues that can arise for example misclassification, duplicate entries, spelling errors, obsolete data, compliance issues and misinterpretation or translation of meaning.	Professional discussion underpinned by a portfolio of evidence
K18 Methods of validating data and the importance of taking corrective action, for example checking the source of information, identification and standardisation of outliers, adjusting item counts or totals of values.	Professional discussion underpinned by a portfolio of evidence
K19 Legal and regulatory requirements surrounding the use of data for example Data Protection, Data Security, Intellectual Property Rights, Data sharing, marketing consent, personal data definition.	Professional discussion underpinned by a portfolio of evidence
K20 The ethical use of data, including in relation to its use with Artificial Intelligence and other automated systems, and the potential impacts of unethical use of data on the organisation.	Professional discussion underpinned by a portfolio of evidence
K21 The value of data to an organisation, for example to understand behaviours, to assess stakeholder sentiment, to interpret inputs received, to identify trends, to improve decision making and efficiency, or to build strategic or tactical plans to address a current situation.	Professional discussion underpinned by a portfolio of evidence
K22 The significance of understanding cultural awareness, diversity and accessibility with respect to data sets.	Professional discussion underpinned by a portfolio of evidence
K23 The relationships between data, machine learning, Internet of Things (IoT), Artificial Intelligence (AI) and Generative AI. For example, the impact of data and any biases within it on training AI models, and the impact of AI on data volume, quality, security, privacy and ethical considerations.	Professional discussion underpinned by a portfolio of evidence

K24 Policies and procedures relating to environmental impact and sustainability.	Professional discussion underpinned by a portfolio of evidence
K25 Principles and policies of equity, diversity and inclusion in the workplace and their impact on the organisation.	Professional discussion underpinned by a portfolio of evidence
K26 Understand when and how to apply the principles of prompt engineering to identify and research effective data transformation techniques to ensure data quality and integrity.	Scenario demonstration with questioning

SKILL	ASSESSMENT METHODS
S1 Select and migrate data from already identified sources.	Scenario demonstration with questioning
S2 Format and save datasets.	Scenario demonstration with questioning
S3 Summarise and explain gathered data.	Scenario demonstration with questioning
S4 Combine data sets from multiple sources and present in format appropriate to the task.	Scenario demonstration with questioning
S5 Use tools and/or apply basic statistical methods to identify trends and patterns in data.	Scenario demonstration with questioning
S6 Identify faults and cleanse data for example identifying gaps, duplicate entries, outliers and unusual variances, including cross-checking across data elements or between data sources.	Scenario demonstration with questioning
S7 Audit data results, reviewing a data set once all sources are combined, to ensure accuracy, completeness, consistency and traceability from original data.	Scenario demonstration with questioning
S8 Demonstrate the different ways of communicating meaning from data in line with audience requirements.	Scenario demonstration with questioning
S9 Produce clear and consistent documentation of the data provided to others and of actions completed. Where appropriate or mandated by the working context, this documentation should use standard organisational templates.	Professional discussion underpinned by a portfolio of evidence

S10 Store, manage and distribute data in compliance with organisational, national standards and or legislation.	Professional discussion underpinned by a portfolio of evidence
S11 Considers sustainability and ways to reduce impact. For example, using cloud storage, sharing links to files and reducing the use of physical handouts of documentation.	Professional discussion underpinned by a portfolio of evidence
S12 Parse data against standard formats, and test and assess confidence in the data and its integrity.	Professional discussion underpinned by a portfolio of evidence
S13 Operate collaboratively in a working context that accounts for, and takes advantage of, the roles, skills and activities of others, especially those interacting with the same data sets or working towards a common goal.	Scenario demonstration with questioning
S14 Prioritise own activities within the context of the duties to be performed, taking account of any known or expected impact on others.	Professional discussion underpinned by a portfolio of evidence
S15 Follows equity, diversity and inclusion policies in the organisation for a common goal.	Professional discussion underpinned by a portfolio of evidence
S16 Demonstrate the ability to use different tools and methods to formulate and utilise effective prompts to research, apply, and evaluate data transformation techniques.	Scenario demonstration with questioning

BEHAVIOUR	ASSESSMENT METHODS
B1 Manage own time to meet deadlines and manage stakeholder expectations.	Professional discussion underpinned by a portfolio of evidence
B2 Work independently and methodically.	Professional discussion underpinned by a portfolio of evidence
B3 Support social inclusion in the workplace. For example consider the needs of the audience.	Scenario demonstration with questioning
B4 Takes responsibility for acting sustainably in their role for example switching off lights when not in use and recycling.	Scenario demonstration with questioning

Mapping of KSBs to grade themes

Scenario demonstration with questioning

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Data gathering K4 K5 K6 K13 S1 S2 S3 S4 S5 S6 B4	Data element formats and how their selection can impact precision, analysis and communication, for example, integers, floating point numbers and their precision, scientific notation, date formatting as strings. (K4) How to access and extract data from already identified sources. (K5) How to collate and format data in line with organisational standards. (K6) How to combine data from multiple sources. For example using look ups, copy and paste and visualisation tools. (K13)	Select and migrate data from already identified sources. (S1) Format and save datasets. (S2) Summarise and explain gathered data. (S3) Combine data sets from multiple sources and present in format appropriate to the task. (S4) Use tools and/or apply basic statistical methods to identify trends and patterns in data. (S5) Identify faults and cleanse data for example identifying gaps, duplicate entries, outliers and unusual variances, including cross-checking across data elements or between data sources. (S6)	Takes responsibility for acting sustainably in their role for example switching off lights when not in use and recycling. (B4)
Data analysis and validation K14 K15 K16 K26 S7 S8 S13 S16 B3	Understand the capabilities within data analysis tools, for example, spreadsheets or database viewers, for use in answering questions, solving	Audit data results, reviewing a data set once all sources are combined, to ensure accuracy, completeness, consistency and traceability from original data. (S7)	Support social inclusion in the workplace. For example consider the needs of the audience. (B3)

problems, and the potential to use automation for repeated data manipulation. (K14)

How to filter details, focusing on information relevant to the data tasks and purpose. (K15)

Basic statistical methods to extract relevant information from structured and unstructured data, for example, counting rows, calculating the mean and standard deviation of numeric fields, counting words in a document, listing the most common values, calculating percentage contributions or percentage differences between data items. (K16)

Understand when and how to apply the principles of prompt engineering to identify and research effective data transformation techniques to ensure data quality and integrity. (K26) | Demonstrate the different ways of communicating meaning from data in line with audience requirements. (S8)

Operate collaboratively in a working context that accounts for, and takes advantage of, the roles, skills and activities of others, especially those interacting with the same data sets or working towards a common goal. (S13)

Demonstrate the ability to use different tools and methods to formulate and utilise effective prompts to research, apply, and evaluate data transformation techniques. (S16) | |

Professional discussion underpinned by a portfolio of evidence

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Data analysis and validation K17 K18	Common data quality issues that can arise for example misclassification, duplicate entries, spelling errors, obsolete data, compliance issues and misinterpretation or translation of meaning. (K17) Methods of validating data and the importance of taking corrective action, for example checking the source of information, identification and standardisation of outliers, adjusting item counts or totals of values. (K18)	None	None
Distribution and dissemination K9 K10 K11 K12 K19 K21 K22 S9 S10 S11	Management and presentation tools to visualise and review the characteristics of data. Examples include spreadsheets with tables and charts, dashboarding tools, custom tools for particular data types or contexts. (K9) Communication tools and technologies for	Produce clear and consistent documentation of the data provided to others and of actions completed. Where appropriate or mandated by the working context, this documentation should use standard organisational templates. (S9) Store, manage and distribute data in compliance with	None

collaborative working, including the ability to share data and findings of data reviews. Examples include dashboards, shared whiteboards, or presentation tools for video conferencing or for face-to-face contexts. (K10)

Communication methods, formats and techniques to help audiences understand data findings and their implications, for example written, verbal, non-verbal, presentation, email, conversation, storytelling and active listening. (K11)

Roles within an organisation needing access to data or to understand data findings, and how these roles impact the amount of detail needed in data communications, for example, customer, manager, peer; technical and non-technical. (K12)

Legal and regulatory requirements surrounding the

organisational, national standards and or legislation. (S10)

Considers sustainability and ways to reduce impact. For example, using cloud storage, sharing links to files and reducing the use of physical handouts of documentation. (S11)

	use of data for example Data Protection, Data Security, Intellectual Property Rights, Data sharing, marketing consent, personal data definition. (K19) The value of data to an organisation, for example to understand behaviours, to assess stakeholder sentiment, to interpret inputs received, to identify trends, to improve decision making and efficiency, or to build strategic or tactical plans to address a current situation. (K21) The significance of understanding cultural awareness, diversity and accessibility with respect to data sets. (K22)		
Approaches to work S12 S14 S15 B1 B2	None	Parse data against standard formats, and test and assess confidence in the data and its integrity. (S12) Prioritise own activities within the context of the duties to be performed, taking account of any	Manage own time to meet deadlines and manage stakeholder expectations. (B1) Work independently and methodically. (B2)

| | | known or expected impact on others. (S14)

Follows equity, diversity and inclusion policies in the organisation for a common goal. (S15) | |
|---|---|---|---|
| Data Gathering
K1 K2 K3 K7 K8 K20 K23 K24 K25 | Types of data, for example, structured, unstructured, qualitative, quantitative, numeric, strings, compound data types. (K1)

Common sources of data, for example, internal, external, open data sets, public and private. (K2)

Data storage formats and their importance for analysis, for example, relational database tables, spreadsheets, comma separated value lists, text documents, voice and video. (K3)

Why it may be important to anonymise data, for example for privacy, security and regulatory compliance, or to eliminate potential for bias. (K7) | None | None |

How to anonymise data, for example one-for-one replacement of names, addresses or telephone numbers with distinct new values, without changing data structure or relationships. (K8)

The ethical use of data, including in relation to its use with Artificial Intelligence and other automated systems, and the potential impacts of unethical use of data on the organisation. (K20)

The relationships between data, machine learning, Internet of Things (IoT), Artificial Intelligence (AI) and Generative AI. For example, the impact of data and any biases within it on training AI models, and the impact of AI on data volume, quality, security, privacy and ethical considerations. (K23)

Policies and procedures relating to environmental impact and sustainability. (K24)

	Principles and policies of equity, diversity and inclusion in the workplace and their impact on the organisation. (K25)		