

Level 4 End-point Assessment for Data Analyst (9770-12)

Standard: ST0118

EPA Plan: V1.1/AP03

QN: 610/2179/9

Version 1.2

Last modified April 2025

For external use

End-point Assessment Pack

For Centres/End-point Assessment Customers/Employers

Version and date	Change detail	Section
V1.0 July 2021	Document created	Document
V1.1 January 2024	Update to entry requirements	Page 5
V1.2 April 2025	<p>Update titling of product to new titling convention</p> <p>Update wording of maths and English gateway requirements</p> <p>Add duration of EPA period to the packs</p> <p>Security, confidentiality and copyright guidance updated</p> <p>Contact information updated</p> <p>Update B5, B6 and B7 to comply with EPA Plan</p>	

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1 Introduction

About this apprenticeship occupation

This End-point Assessment (EPA) pack has been designed to assess all requirements as stipulated in the Data Analyst assessment plan version ST0118/AP03.

The following information is taken from documentation published on www.instituteforapprenticeships.org

Occupational profile

This occupation is found in any employer in any sector that uses data to make business decisions. Data analysts may work in various departments within a single employer, (for example finance, sales, HR, manufacturing, or marketing), and in any employment sector, public or private, including retail, distribution, defence, banking, logistics, media, local government etc. The broad purpose of the occupation is to ascertain how data can be used in order to answer questions and solve problems. Data analysis is a process of requirement-gathering, inspecting, cleansing, transforming and modelling data with the goal of discovering useful information, informing conclusions and supporting decision-making. Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names. In today's world, data analysis plays a crucial role in making decisions more evidence-based and helping organisations operate more effectively.

For example: a data analyst may investigate social media trends and their impact on the organisation. In retail, a data analyst may break down sales figures to make recommendations on product placement and development. In HR a data analyst may investigate staff retention rates, in order to decide on recruitment strategy. In a hospital, a data analyst may investigate wait times for different departments, in order to provide a better service to its patients.

In their daily work, an employee in this occupation interacts with internal or external clients. Internally, the data analyst may work with many people within their organisation, at different levels. Externally a data analyst may provide data analysis services to other organisations on behalf of their employer. Data analysts would normally be office based and work normal business hours.

An employee in this occupation will be responsible for the creation and delivery of their own work, to meet business objectives. The data analyst will be responsible for working within the data architecture of the company and ensuring that the data is handled in a compliant, safe and appropriately secure manner, understanding and adhering to company data policy and legislation. Data analysis is a fast-moving and changing environment, and data analysts need to continue to stay abreast of, and engaged with, changes and trends in the wider industry; including data languages, tools and software, and lessons learnt elsewhere.

Typical job titles include Data Analyst, Departmental Analyst, Junior analyst, Energy Data Analyst, Problem Analyst, Marketing Data Analyst.

What is in this document

- The occupational standard
- Resource requirements for End-point Assessment (EPA)
- Timeline for EPA
- EPA tasks and guidance on grading
- Guidance for the EPA customer and apprentice.

This document must be used alongside the **9770-12 Data Analyst Recording Forms for Centres/End-point Assessment Customers** document.

End-point Assessment

The focus of the End-point Assessment (EPA) is for the apprentice to fully demonstrate the knowledge, skills and behaviours set out in the apprenticeship standard and to be able to demonstrate this level of professional competence in authentic workplace contexts.

EPAs are formal summative assessments that conclude an apprenticeship programme. Each apprenticeship will be assessed in a number of ways to provide a clear indication of the apprentice's knowledge and skills. For this apprenticeship, the following assessment methods need to be achieved:

- **700: Project with Presentation and Questioning**
- **701: Professional Discussion with Portfolio.**

The EPA should be completed within a period lasting **typically three months** after the EPA Gateway.

Grading

This apprenticeship is graded Fail/Pass/Merit/Distinction. An EPA is assessed and graded by a City & Guilds Independent End-point Assessor.

More information about how each assessment is graded and how the overall apprenticeship grade is determined can be found in later sections of this document.

Entry requirements for End-point Assessment

To be eligible for End-point Assessment, the apprentice must have successfully achieved the following:

- a minimum of 12 months on-programme (full-time apprentices will typically spend 24 months on-programme)
- English and mathematics qualifications in line with the apprenticeship funding rules
- a portfolio to underpin the professional discussion.

Apprentices are not required to gain approval for their project summary to commence their end-point assessment.

For those with an education, health and care plan or a legacy statement, the apprenticeship's English and Mathematics minimum requirement is Entry Level 3. British Sign Language (BSL) qualifications are an alternative to English qualifications for those who have BSL as their primary language.

Gateway – prior to End-point Assessment

Before the Gateway, full-time apprentices will typically spend 24 months on-programme, working towards the occupational standard, with a minimum of 20% off-the-job training.

The Gateway process provides an opportunity for the employer/tutor to review progress of the apprentice and confirm that they are eligible for carrying out the EPA. The employer/tutor will review the apprentice's achievements to date, ensuring that **all** entry requirements have been met and that the apprentice is proficient in **all** areas of the standard.

The EPA booking process and 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
- all the pre-requisite Gateway requirements for EPA have been met
- all the pre-requisite Gateway requirements can be evidenced to City & Guilds.

On completion of the Gateway process, the apprentice will be required to sign an **Apprentice Gateway Declaration Form**. This form should be submitted as part of the Gateway process in EPA Pro. A copy of this form can be found in the Support Resources section on EPA Pro. The provider will be required to make a declaration and electronic signature on behalf of the employer and provider/tutor in EPA Pro.

Remote assessment

Remote assessment is live assessment that is supported by technology where the IEPA and the apprentice are not in the same physical location when the assessment takes place.

The following assessments can be conducted remotely:

- 700: Project with Presentation and Questioning
- 701: Professional Discussion with Portfolio.

Security, confidentiality & copyright of End-point Assessment materials

The following Terms of Use apply to the use of any City & Guilds EPA Assessment Materials ("EPA Assessment Materials"), included with the EPA Pack or otherwise provided by City & Guilds to the Customer from time to time under City & Guilds' EPA Service, by Customers. They form part of the Agreement between City & Guilds and the Customer for provision of City & Guilds' EPA Service in accordance with the Manual for the End-point Assessment Service (hereafter the Manual).

EPA Assessment Materials include, but are not restricted to, venue and resources list, the handbook, EPA Pack, EPA Recording Forms, sample papers, assessment tasks, questions or marked scripts.

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- **not** make copies of any EPA Assessment Materials, whether in whole or in part, at any time;

- handle and store any EPA Assessment Materials securely at all times;
- ensure that:
 - any EPA Assessment Materials are made accessible to Apprentices only during formal EPA assessment as governed by the assessment conditions specified for the individual Apprenticeship Standard;
 - whilst the portfolio of an Apprentice may contain EPA assessment results referenced to the EPA assessment taken from time to time, they do not at any time contain the EPA Assessment Materials, unless otherwise stated in the individual Apprenticeship Standard; and the content of any EPA Assessment Materials is not made public in any format, whether in part or in full, at any time;
- **under no circumstances** share any EPA Assessment Materials with any third-party organisation or individual;
- seek written permission from City & Guilds if they wish to convert any EPA Assessment Materials for storage, retrieval and delivery in electronic form (ie, using some form of e-assessment or e-learning system) from time to time; and
- provide access, on request, to City & Guilds to any system(s) on which any EPA Assessment Materials appear, are stored or delivered from time to time.

2 Apprenticeship Occupational Standard

The following information is taken from documentation published on www.gov.uk and www.instituteforapprenticeships.org websites.

Knowledge and Understanding

Ref.	Outcomes	Assessment method and minimum requirements
K1	Current relevant legislation and its application to the safe use of data.	Professional Discussion with Portfolio Explains how current, relevant legislation impacts on the safe use of data and how their role contributes to a productive, safe, and secure working environment.
K2	Organisational data and information security standards, policies and procedures relevant to data management activities.	Professional Discussion with Portfolio Explains the relevant data policies and procedures for the organisation and identifies the data standards to be reached.
K3	Principles of the data analysis life cycle and the steps involved in carrying out routine data analysis tasks.	Project with Presentation and Questioning Outlines and applies the principles of data analysis lifecycle to the steps of data analysis.
K4	Principles of data, including open and public data, administrative data, and research data.	Project with Presentation and Questioning Describe the principles of data including open, public, administrative and research data and how they relate to the data used within the project
K5	The differences between structured and unstructured data.	Professional Discussion with Portfolio Explains the differences between structured and unstructured data.
K6	The fundamentals of data structures, database system design, implementation and maintenance.	Project with Presentation and Questioning Describes the fundamentals of data structures and database system design and explains how they are implemented and maintained.
K7	Principles of user experience and domain context for data analytics.	Professional Discussion with Portfolio Explains the principles of user experience and domain context for data analytics.

Ref.	Outcomes	Assessment method and minimum requirements
K8	Quality risks inherent in data and how to mitigate/resolve these.	Project with Presentation and Questioning Identifies quality risks in data analysis and outlines methods to mitigate, escalate and/or resolve them.
K9	Principal approaches to defining customer requirements for data analysis.	Outlines and applies the principles for defining customer requirements and implements findings in data analytics planning and outputs.
K10	Approaches to combining data from different sources.	Professional Discussion with Portfolio Explains approaches to combining data from different sources to improve accuracy and / or efficiency and / or maximise benefits to the organisation and / or customer.
K11	Approaches to organisational tools and methods for data analysis.	Project with Presentation and Questioning Describes the tools and methods used by their organisation for data analysis and identifies which were used within the project with reasoning for the choices made to achieve the best outcome.
K12	Organisational data architecture	Project with Presentation and Questioning Outlines the choice of organisational data architecture.
K13	Principles of statistics for analysing datasets.	Professional Discussion with Portfolio Explains and applies the principles of statistics for analysing datasets.
K14	The principles of descriptive, predictive and prescriptive analytics.	Professional Discussion with Portfolio Explains the principles of descriptive, predictive and prescriptive analytics and demonstrates how they have been applied within their own data analysis practice.
K15	The ethical aspects associated with the use of and collation of data.	Professional Discussion with Portfolio Explains the ethical aspects associated with the collation and use of data and justifies why this is important.

Skills

Ref.	Outcomes	Assessment method and minimum requirements
S1	Use data systems securely to meet requirements and in line with organisational procedures and legislation, including principles of Privacy by Design.	Project with Presentation and Questioning Operates data systems in compliance with all organisational and legislative requirements including principles of Privacy by Design.
S2	Implement the stages of the data analysis lifecycle.	Project with Presentation and Questioning Outlines and applies the principles of data analysis lifecycle to the steps of data analysis.
S3	Apply principles of data classification within data analysis activity, flexing approach as necessary.	Project with Presentation and Questioning Demonstrates a reasoned application of the principles of data classification. Explains where any flexibilities in application have been applied and their purpose.
S4	Analyse data sets, taking account of different data structures and database designs.	Project with Presentation and Questioning Analyses data sets taking account of different data structures and database designs.
S5	Assess the impact on user experience and domain context on the data analysis activity.	Professional Discussion with Portfolio Describes impact on user experience and domain context of data analysis.
S6	Identify and escalate quality risks in data analysis with suggested mitigation/resolutions as appropriate.	Project with Presentation and Questioning Identifies quality risks in data analysis and outlines methods to mitigate, escalate and/or resolve them.
S7	Undertake customer requirements analysis and implement findings in data analytics planning and outputs.	Project with Presentation and Questioning Outlines and applies the principles for defining customer requirements and implements findings in data analytics planning and outputs.
S8	Identify data sources and the risks, challenges to combination within data analysis activity.	Project with Presentation and Questioning Demonstrates how data from different sources is combined and prepared for data analysis setting out how they identified the risks and challenges inherent in combining data within the project.
S9	Apply organisational architecture requirements to data analysis activities.	Professional Discussion with Portfolio Describes the relevant tools or techniques used for working with the data systems architecture in their organisation.
S10	Apply statistical methodologies to data analysis tasks.	Professional Discussion with Portfolio Explains and applies the principles of statistics for analysing datasets.

Ref.	Outcomes	Assessment method and minimum requirements
S11	Apply predictive analytics in the collation and use of data.	<p>Professional Discussion with Portfolio Explains the principles of descriptive, predictive and prescriptive analytics and demonstrates how they have been applied within their own data analysis practice.</p>
S12	Collaborate and communicate with a range of internal and external stakeholders using appropriate styles and behaviours to suit the audience.	<p>Project with Presentation and Questioning Communicates and collaborates with all relevant stakeholders and adapts communication style to meet audience and situational requirements.</p>
S13	Use a range of analytical techniques such as data mining, time series forecasting and modelling techniques to identify and predict trends and patterns in data.	<p>Professional Discussion with Portfolio Explains how they have applied analytical techniques for data mining and time series forecasting and other modelling techniques.</p>
S14	Collate and interpret qualitative and quantitative data and convert into infographics, reports, tables, dashboards, and graphs.	<p>Professional Discussion with Portfolio Demonstrates data analysis activities involving the collation and interpretation of qualitative and quantitative data and displays results using visual representations.</p>
S15	Select and apply the most appropriate data tools to achieve the best outcome.	<p>Project with Presentation and Questioning Describes the tools and methods used by their organisation for data analysis and identifies which were used within the project with reasoning for the choices made to achieve the best outcome.</p>

Behaviours

Ref.	Outcomes	Assessment method and minimum requirements
B1	Maintain a productive, professional, and secure working environment.	Professional Discussion with Portfolio Explains how current, relevant legislation impacts on the safe use of data and how their role contributes to a productive, safe, and secure working environment.
B2	Shows initiative, being resourceful when faced with a problem and taking responsibility for solving problems within their own remit.	Professional Discussion with Portfolio Describes how they have appropriately adapted their activities to meet minor, unexpected changes at work.
B3	Works independently and collaboratively.	Project with Presentation and Questioning Describes how they work independently and collaboratively, detailing their impact on the work of others.
B4	Logical and analytical.	Project with Presentation and Questioning Acts independently to establish logical and analytical solutions such as exploring new data sets or resolving issues within the data.
B5	Identifies issues quickly, investigating and solving complex problems and applies appropriate solutions. Ensures the true root cause of any problem is found and a solution is identified which prevents recurrence.	Professional Discussion with Portfolio Describes how they have established an approach to identifying issues quickly, investigating and solving complex problems and applying appropriate solutions. Describes how they have ensured the true root cause of any problem is found and a solution is identified which prevents recurrence.
B6	Resilient - viewing obstacles as challenges and learning from failure.	Professional Discussion with Portfolio Identifies and explains challenges in their work and how they overcame them, providing an outline of lessons learned.
B7	Adaptable to changing contexts within the scope of a project, direction of the organisation or Data Analyst role.	Professional Discussion with Portfolio Identifies areas of work where they adapted to changing contexts within the scope of a project, direction of the organisation or Data Analyst role.

3 End-point Assessment guidance for the Centre/End-point Assessment Customer/Employer

End-point Assessment

The apprentice will be asked to complete two End-point Assessments to conclude their apprenticeship in order to provide a clear indication of their knowledge, skills and ability using the following assessment methods:

- **Project with Presentation and Questioning**
- **Professional Discussion with Portfolio.**

The assessments can be taken in any order. All the criteria must be evidenced by the apprentice's own work and therefore met without support.

Introducing the End-point Assessment to the apprentice

Prior to the Gateway process, the employer/training provider should make the apprentice aware of the different assessment methods that make up the End-point Assessment (EPA) of the apprenticeship.

The IEPA will guide the apprentice through the EPA components on the day/s of the assessment. However, it is the responsibility of the employer/training provider to introduce the assessment methods to the apprentice ahead of the EPA event.

Further information regarding what can be shared with the apprentice and the associated timelines can be found in the **Task Instructions for the Centre/EPA customer/Employer** sections within this document. When introducing any assessments, a realistic timeframe should be set for completion of each task, in line with the timeline agreed with City & Guilds when booking EPA. If tasks are not completed within the agreed timeframe without the apprentice having a good reason, the timeline for any EPA event may be reviewed.

For any assessments that occur over a longer duration, employers/training providers are expected to work with apprentices to develop a submission schedule that aligns with the overall timeline for assessments and with any timelines agreed with City & Guilds when booking EPA.

Health and safety/codes of practice

The importance of safe working practices, the demands of the Health and Safety at Work Act and any Codes of Practice associated with the industry **must** always be adhered to.

The requirement to follow safe working practices is an integral part of all City & Guilds assessments, and it is the responsibility of the employer/training provider to ensure that all relevant health and safety requirements are in place when working on any projects or before apprentices begin any practical assessment.

Should an IEPA identify something, when assessing evidence submitted for the apprenticeship or pick up on something during an oral assessment that indicates that health and safety practices and procedures may not have been adhered to, the IEPA will feed this back to City & Guilds EPA team.

Authenticating the apprentice's work

When making judgements on evidence of unobserved tasks, the IEPA will ensure all decisions satisfy Validity, Authenticity, Currency and Sufficiency (VACS). For evidence produced outside controlled conditions, the apprentice will be required to:

- sign a declaration that the work is their own
- reference all sources.

The employer/ training provider should also aid authentication by:

- supplementary (oral) questioning to gauge familiarity with the topic
- looking out for any changes to the apprentices usual writing style, unusual sources/examples or the use of e.g. US spellings or phrases that might indicate cutting and pasting from the internet
- requiring access to evidence of steps in the process e.g. drafts, notes, planning etc.

City & Guilds have produced evidence reference forms for both apprentices and IEPAs to use when reviewing evidence produced outside of controlled conditions. These forms include a **Declaration of Authenticity Form** which must be completed when submitting evidence. These forms can be found in the **9770-12 Data Analyst Recording Forms** document.

Recording forms

City & Guilds have designed specific recording forms for the apprentice and EPA customer to use for this apprenticeship.

These can be found in the following document:

- **9770-12 Data Analyst Recording Forms**

The EPA customer must use the forms provided by City & Guilds in the format laid out in this document.

Determining the apprenticeship grade

IEPAs are responsible for grading all tasks and communicating these outcomes to City & Guilds. IEPAs are also responsible for determining the overall grade of the apprenticeship.

Each assessment will be individually assessed and graded by an IEPA. The grade will be determined using the grading criteria detailed in each assessment method.

The overall grade will be based on the grades achieved in the two End-point Assessment methods: Project with Presentation and Questioning and Professional Discussion with Portfolio.

To achieve a pass overall, an apprentice must achieve a pass in **both** assessment methods. If either End-point Assessments are not achieved, the apprentice would not achieve the apprenticeship overall.

To achieve a distinction, an apprentice must achieve a distinction in **both** assessment methods. If a pass is achieved in one assessment and a distinction is achieved in the other, the apprentice would achieve a merit overall.

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

Assessment method: 700 – Project with Presentation and Questioning	Assessment method: 701 – Professional Discussion with Portfolio	Overall grading
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Pass	Distinction	Merit
Distinction	Pass	Merit
Distinction	Distinction	Distinction

All assessment methods are weighted equally in their contribution to the overall EPA grade. The contribution of the assessments towards the EPA grade is as follows:

Assessment method	Grade scale	% contribution
700 Project with Presentation and Questioning	X/P/D	50%
701 Professional Discussion with Portfolio	X/P/D	50%
	Total	100%

Feedback

The IEPA will not provide any feedback to the apprentice during or immediately following the end assessment process.

Summary feedback will be provided to all apprentices after any grade determination has been carried out. The feedback will cover the areas against which insufficient evidence has been provided, leading to a 'Fail'. Our 'End-point Assessment Feedback' will also cover the areas against which the apprentice's evidence has resulted in the award of a Pass or Distinction.

Results submission and certification

The IEPA is responsible for submitting apprentice's results to City & Guilds. City & Guilds will issue an EPA record of achievement confirming the grade achieved and will notify the appropriate body who will issue the Apprenticeship certificate.

Opportunities to resit/retake or improve results for End-point Assessments

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

Apprentices are **only** required to resit/retake the element of the EPA they have failed. In all cases, the apprentice's employer will need to agree that a resit or retake is an appropriate course of action.

A resit is typically taken within **two months** of the EPA outcome notification. The timescale for a retake is dependent on how much re-training is required and is typically taken within **four months** of the EPA outcome notification.

Apprentices should have a supportive action plan provided by the employer and/or training provider to prepare for the resit/retake. Resits/retakes are not offered to apprentices wishing to move from pass to distinction, unless the City & Guilds deems there to be exceptional circumstances warranting consideration. Application of this is at the discretion of City & Guilds.

All assessment methods must be taken within a **six-month period**, otherwise the entire EPA will need to be resat/retaken, unless City & Guilds determine that exceptional circumstances apply outside the control of the apprentice or their employer.

The overall grade awarded for this apprenticeship standard is **not** capped, therefore an apprentice can still achieve a maximum EPA grade of distinction if any assessment method is resat or retaken. There is no limit to the number of resits/retakes. A separate EPA resit/retake booking will need to be made with City & Guilds for the relevant assessment.

4 End-point Assessment resources list

Resource required	
Project with Presentation and Questioning	Internet access and suitable equipment for remote assessment, such as a computer with audio and video capacity, as outlined in the manual for End-point Assessment services.
	A suitable, quiet room for the remote questioning to take place (under exam conditions). The room should have lighting, space and privacy and be free from interruptions. It must be away from the pressures of work activities, in a controlled environment. This may be on or off the employer's premises.
	The apprentice and the IEPA must each have a copy of the apprentice's project report to refer to.
Professional discussion with a portfolio	Internet access and suitable equipment for remote assessment, such as a computer with audio and video capacity, as outlined in the manual for End-point Assessment services.
	A suitable, quiet room for the remote professional discussion to take place (under exam conditions). The room should have lighting, space and privacy and be free from interruptions. It must be away from the pressures of work activities, in a controlled environment. This may be on or off the employer's premises.
	The apprentice and the IEPA must each have a copy of the apprentice's portfolio of evidence to refer to.

5 End-point Assessment timeline

The process of setting up the End-point Assessment will begin roughly six months before the completion of the apprenticeship, as shown in the table below. It is the responsibility of the employer/training provider to ensure that the apprentice is ready for each stage of this timeline.

Time line	Activity
Six months before planned completion	<p>Employer/training provider:</p> <ul style="list-style-type: none"> reviews progress and ensures apprentice's performance is on track as part of the regular performance management system identifies any gaps and creates a plan for the End - point assessment with the apprentice considers whether apprentice's potential evidence for the portfolio is appropriate and sufficient to cover the relevant KSBs (knowledge, skills, behaviours) in scope and breadth ensures the apprentice works towards English and Maths qualifications in line with the apprenticeship funding rules. <p>Apprentice:</p> <ul style="list-style-type: none"> completes the English and Maths components of the apprenticeship, as required by the apprenticeship funding rules develops a portfolio to evidence the KSBs required for the professional discussion assessment method.
Four months before planned completion	<p>Line manager/training provider and apprentice:</p> <ul style="list-style-type: none"> meet to review progress for final assessment refine plans for components of final End-point Assessment choose the project topic for Project with Presentation and Questioning assessment method. <p>Apprentice:</p> <ul style="list-style-type: none"> completes work on portfolio of evidence.
Gateway	<p>The apprentice and employer/tutor review progress and confirm that the apprentice is ready for End-point Assessment.</p> <ul style="list-style-type: none"> All supporting evidence is uploaded into the EPA Pro platform through the Gateway process. The employer/training provider uploads the apprentice's portfolio of evidence which will be used in the professional discussion. The apprentice signs the completed Apprentice Gateway Declaration Form and this is uploaded by the provider in the EPA Pro Gateway process.

Time line	Activity
	<ul style="list-style-type: none"> The provider completes a declaration and e-signature on behalf of the provider and employer in the EPA Pro platform.
Book End-point Assessment in line with City& Guilds booking timelines	The employer/training provider makes End-point Assessment booking in line with City & Guilds booking timelines*
Completion of assessment activities	<p>The assessment methods can be taken in any order.</p> <ul style="list-style-type: none"> After the apprentice has gone through Gateway, they conduct a work-based project and prepare an associated project report and presentation. This forms the basis for the Project with Presentation and Questioning assessment. Within eight weeks of the EPA start date, the apprentice (i) conducts their work-based project and (ii) submits the project report and project presentation to City & Guilds. IEPA carries out the project presentation and questioning session with the apprentice. The apprentice receives at least ten days' notice of the project presentation and questioning session date. IEPA carries out professional discussion with the apprentice. The IEPA receives at least ten days' notice to review the portfolio before the professional discussion date. The apprentice receives at least ten days' notice of the professional discussion date.
End of apprenticeship	Grade communicated to the EPA customer.

* Customer to advise EPA team **at the point of booking** if they need to arrange for any assessment to take place face-to-face in a physical location. Please note there would be an extra charge for face-to-face assessments.

Assessment 700 Project with Presentation and Questioning

Assessment specification

Assessment	Description	Coverage	Grading
700	Project with Presentation and Questioning	Knowledge: K3, K4, K8, K9, K11, K12. Skills: S1, S2, S3, S4, S6, S7, S8, S12, S15. Behaviours: B3, B4.	X/P/D

Overview

Apprentices will conduct and submit a work-based project in the form of a project report. The project report is compiled and submitted after the apprentice has gone through the Gateway process. This will be followed by a presentation by the apprentice with questioning from an IEPA.

The aim of the project is to show evidence of data analysis work that reflects relevant working practices for this role, meets the requirements of the employer organisation and allows the relevant KSBs (knowledge, skills and behaviour) to be demonstrated for this assessment method.

Since the project is work-based, the employer will provide an appropriate customer or other stakeholder specification from their day-to-day business activities. The employer will ensure the project has a real business application and has suitable coverage of the KSBs assigned to this assessment method. City & Guilds have provided examples of project titles and detailed guidance on project requirements to enable the employer to select a suitable project that will meet the requirements of the EPA. City and Guilds is not required to approve a project title before the project commences.

Apprentices will also prepare and deliver a presentation that covers the KSBs assigned to this method of assessment. The presentation is part of the overall 'Project with Presentation and Questioning' assessment method.

The rationale for the use of a presentation is that it replicates a key aspect of the role of data analysts, who are required to communicate complex issues to non-technical and technical audiences.

The purpose of the IEPA questioning will be to check the knowledge and skills shown in the apprentice's work-based project and explore the underpinning reasoning and details of the evidence provided in the project report and presentation. The questions will draw out the best of the apprentice's competence and excellence and cover the KSBs assigned to this assessment method. The questions will focus on coverage of the work-based project report.

The rationale for this assessment method is that it is occupationally relevant to the role and duties of a data analyst to undertake projects and complete project reports based on specified requirements. Data analysts work in a project-based environment and are responsible for collating, analysing and presenting data effectively to a range of stakeholders. A meaningful work-based project therefore enables the apprentice's competence to be assessed in a viable way.

Task instructions for the Centre/End-point Assessment Customer/Employer

Component 1: Work-based data analysis project

The apprentice will conduct and submit a work-based project in the form of a project report. The project and accompanying report will be compiled after the apprentice has gone through the Gateway process. The apprentice will **also** prepare and submit a project presentation that will be used during the questioning session with an IEPA. Usually the project report and the project presentation materials will be submitted to City & Guilds at the same time.

Project requirements

The apprentice's project should be submitted in the form of an electronic report. The report should contain clear explanation of the tasks carried out and relevant associated visual infographics.

The apprentice's project report must include the following:

- an introduction
- the scope of the project (including key performance indicators)
- project outcomes and how the outcomes were achieved
- a project plan
- consideration of legislation, regulation, industry and organisational policies, procedures and requirements
- analysis
- research and findings
- recommendations and conclusions
- acknowledgement of any sources used.

The project report has a maximum word limit of **3,500**. A tolerance of plus or minus 10% is allowed. Appendices, references, diagrams etc. will not be included in this total.

The project should be based on a customer or stakeholder specification requiring the apprentice to respond to any of the following:

- patterns/trends and predictions
- presenting statistical analysis results to inform decisions
- optimising data models using statistical measures.

The employer will provide the customer or other stakeholder specification from their day-to-day business activities.

The employer will ensure the project has a real business application with suitable coverage of the KSBs assigned to this assessment method as shown in the mapping of assessment method within the 'Grading criteria' table later in this section.

The employer will give appropriate regard to data confidentiality and security requirements when selecting a suitable project topic.

The project must map, in an appendix, how it evidences the relevant KSBs for this assessment method. City & Guilds have provided an Evidence Reference Matrix form in the **9770-12 Data Analyst Recording Forms** document for apprentices to use for this assessment. To facilitate comprehensive, consistent mapping of the evidence requirements, use of the City & Guilds supplied form is strongly recommended. The apprentice and/or training provider may choose to use their own version of the Evidence Reference form, but the form must:

- clearly map evidence to the KSBs
- be confirmed as suitable by City & Guilds before it is used.

The examples below have been provided by City & Guilds to assist the employer and apprentice in their selection of a suitable work-based project of an appropriate size and complexity sufficient to cover the knowledge, skills and behaviours assigned to this assessment method. These examples are provided for guidance; other project examples may also be suitable if they meet the requirements of the KSBs assigned to this assessment method.

<p>Project title - example 1 – Patterns / trends and predictions</p>	<p>This project title is aimed at an apprentice working in a large retail organisation. The apprentice’s role involves analysing data to inform decision making.</p> <p>The apprentice will have to gather and analyse historical data to identify current trends and inform the sales targets for a particular team for the next financial year. The data analysis will also allow informed decisions to be made regarding stock levels that need to be maintained.</p> <p>Once the analysis has been completed, the apprentice should prepare a report that details their findings.</p>
<p>Project title - example 2 – Presenting statistical analysis results to inform decisions</p>	<p>This project title is aimed at an apprentice working in a retail organisation that has a presence both online and on the High Street.</p> <p>Due to a downturn in the number of customers purchasing goods from their High Street stores, the organisation is looking at ways in which to increase their in-store sales.</p> <p>In order to identify possible solutions for their employer, the apprentice will have to analyse customer data from the organisation as well as information regarding competitor offerings.</p> <p>Once the analysis has been completed, the apprentice should prepare a report that details their findings and possible solutions.</p>
<p>Project title - example 3 – Optimising data models using statistical measures</p>	<p>This project title is aimed at an apprentice working in a non-governmental research organisation that is studying geographical temperature trends. In order to facilitate this research, the organisation gathers information from a number of weather stations in different geographical locations.</p> <p>To establish current trends, the apprentice will have to analyse the data from specified weather stations. The data will need to be compared to the baseline to identify any anomalies and the probability of severe climate change.</p> <p>Once the analysis has been completed, the apprentice should prepare a report that details their findings.</p>

<p>Project title - example 4 – Using data to inform improvements</p>	<p>This project title is aimed at an apprentice working in an organisation that provides statistical data to educational establishments.</p> <p>The organisation has been approached by a FE college that requires information to assist in their planning of apprenticeships. The college has asked the organisation to provide information on the industry sectors and types of apprenticeships that employers require in their local area.</p> <p>The apprentice will have to gather and analyse relevant data to identify the industry sectors offering apprenticeships and any additional requirements for apprenticeships in the local area.</p> <p>Once the analysis has been completed, the apprentice should prepare a report that details their findings.</p>
<p>Project title- example 5 – Using data to identify solutions</p>	<p>This project title is aimed at an apprentice working in an organisation undertaking research activities. The organisation is working with several stakeholders to identify the solution to an ongoing issue.</p> <p>The apprentice has been tasked to work collaboratively with the stakeholders to understand their goals and determine how the available data can be used to achieve these goals.</p> <p>Once the apprentice has developed an understanding of the stakeholders' goals, they will have to conduct an Exploratory Data Analysis (EDA) to identify the processes and techniques that will be used.</p> <p>Once the Exploratory Data Analysis has been completed, the apprentice should prepare a report that details the scope of the work undertaken and their findings.</p>

In addition to the expanded project titles provided by City & Guilds, the following example project titles may further assist the employer and apprentice in their selection of a suitable work-based project. These example titles are provided for guidance; other project titles may also be suitable if they meet the requirements of the KSBs assigned to this assessment method.

Additional project title examples

Financial forecasting: aimed at apprentices that work in financial organisations such as banks. The apprentice will be required analyse data in order to predict trends.

Social Media: aimed at apprentices involved in analysing customer interactions with the employer organisation's social media presence.

Telecommunications: aimed at apprentices that gather and analyse data about the uptake of telecommunications services. The data would be required to inform planning decisions.

Health Care: aimed at apprentices that gather and analyse data to provide information on current health- related trends.

Local government: aimed at apprentices that work in councils or similar organisations to collect demographic information for planning service provision.

Project presentation requirements

The presentation will be based on the project that has been carried out. The way in which the content of the apprentice's presentation is delivered is not prescribed. However, when submitting the presentation materials to City & Guilds, the apprentice must outline details of visual aids to be used and specify any equipment required for the presentation.

The apprentice's presentation must include the following:

- a summary of the main aspects of the project
- context/ implications/recommendations from the project
- practical application of knowledge, skills and behaviours
- business recommendations/ outcomes of the project, including visualisations
- any follow-on outcomes
- actions and next steps.

Time allowed for preparation and submission of the project report and the project presentation materials

The apprentice will conduct their project and submit the electronic project report to City & Guilds after a maximum of **eight weeks** after the EPA start date. The project will typically take six weeks to compile and the report a further two weeks to write. The project presentation materials will also be completed and submitted after Gateway and within **eight weeks** of the EPA start date.

Assessment conditions

Whilst completing the project, the apprentice should be subject to normal workplace supervision. The employer should ensure the apprentice has sufficient time and the necessary resources to plan and undertake the project. The apprentice may work as part of a team, which could include technical internal or external support, however the report must be the apprentice's own work and be reflective of their own role and contribution. When the project is submitted, the employer and the apprentice should verify the submitted work is that of the apprentice using the 'Declaration of Authenticity Form' in the **9770-12 Data Analyst Recording Forms** document.

The project must map, in an appendix, how the work-based project evidences the relevant KSBs for this assessment method. City & Guilds have produced an 'Evidence Reference Matrix' in the **9770-12 Data Analyst Recording Forms** document to assist with this. The apprentice and/or training provider may choose to use their own version of the Evidence Reference form, providing it clearly maps evidence to the KSBs and is confirmed as suitable by City & Guilds before use.

The apprentice will have **ten days'** notice of the presentation date in order to prepare for the presentation session with the IEPA.

Note: The submission of a fully completed 'Evidence Reference Matrix' form (or agreed alternative form) is mandatory. Failure to do so means that the IEPA will return the project report without it being reviewed.

All the evidence submitted must be in a format that can be opened by the IEPA; where evidence cannot be opened, the project report will be returned without it being reviewed.

Component 2: Presentation with Questioning

The presentation with questioning session will take place after the project report has been assessed by the IEPA.

The presentation with questioning component, along with the work-based project submission date, will be booked by the centre/training provider for the apprentice. The time and date are to be arranged with the City & Guilds End-point Assessment team during the planning meeting.

The presentation with questioning is a structured discussion between the apprentice and the IEPA, focusing on the outputs of the completed work-based project. The session will explore relevant aspects of the work, including how it was carried out, in more detail. This enables the End-point Assessment to include the full range of core and technical skills, knowledge and understanding, as well as the underpinning behaviours.

The questioning will be conducted by the same IEPA who assessed the submitted project. This IEPA will also make the final grading decision.

Assessment conditions

The presentation with questioning session will be delivered in a controlled environment free from distractions and external influence via online video conferencing. The conditions under which the session will take place will be arranged with the City & Guilds End-point Assessment team.

Time allowed for presentation and questioning

The questioning will last for a minimum of **40 minutes**. The apprentice's presentation will typically last for 20 minutes and the questions and answers will typically last for 20 minutes. The questions will be held following the presentation. At least eight questions will be asked. The IEPA has the discretion to increase the time of both the presentation and questioning by up to 10% to allow the apprentice to complete their last point.

Task instructions for the apprentice

Component 1: Work-based data analysis project

You will conduct and submit a work-based project in the form of a **project report**. The project and accompanying report will be compiled after you have gone through the Gateway process. You will also prepare and submit a **project presentation** that will be used during a questioning session with a City & Guilds IEPA (Independent End-point Assessor). You should submit the project report and the project presentation materials to City & Guilds at the same time.

Your project should be based on a customer or stakeholder specification that requires you to respond to any of the following:

- patterns/trends and predictions
- presenting statistical analysis results to inform decisions
- optimising data models using statistical measures.

Your employer will provide the customer or other stakeholder specification from your day-to-day business activities. In doing so, your employer will consider the availability of company and external resources required to complete the project. Your employer will ensure that your project has a real business application and provides sufficient opportunity for you to cover the KSBs assigned to this method, as shown in the mapping of assessment method within the 'Grading criteria' table later in this section.

What you must produce for marking

- Project in the form of an electronic report
- Presentation (for use in your questioning session).

Project report requirements

Your **project** should be submitted in the form of an electronic report. Your report should contain clear explanation of the tasks carried out and relevant associated visual infographics.

Your project report must include the following:

- an introduction
- the scope of the project (including key performance indicators)
- project outcomes and how the outcomes were achieved
- a project plan
- consideration of legislation, regulation, industry and organisational policies, procedures and requirements
- analysis
- research and findings
- recommendations and conclusions
- acknowledgement of any sources used.

The project report has a maximum word limit of **3,500**. A tolerance of plus or minus 10% is allowed.

Appendices, references, diagrams etc. will not be included in this total.

Your project must map, in an appendix, how it evidences the relevant KSBs for this assessment method. City & Guilds have provided an Evidence Reference Matrix form in **the 9770-12 Data Analyst Recording Forms** document for apprentices to use for this assessment. To facilitate comprehensive, consistent mapping of the evidence requirements, use of the City & Guilds supplied form is strongly recommended. The apprentice and/or training provider may choose to use their own version of the Evidence Reference form, but the form must:

- clearly map evidence to the KSBs
- be confirmed as suitable by City & Guilds before it is used.

The report must be uploaded electronically through the EPA Pro portal.

Time allowed for the project report

You will conduct your project and submit your electronic project report to City & Guilds after a maximum of **eight weeks** after the EPA start date. The project will typically take six weeks to compile and the report a further two weeks to write. The project submission date will be arranged by your training provider.

Assessment conditions

Whilst completing the project, you will be subject to normal workplace supervision. Your employer will ensure that you have sufficient time and the necessary resources to plan and undertake the project. You may work as part of a team, which could include technical internal or external support. However, the report must be your own work and will reflect your own role and contribution. When the project is submitted, you and your employer should verify the submitted work is your own, using the 'Declaration of Authenticity Form' provided in the **9770-12 Data Analyst Recording Forms** document.

Note: The submission of a fully completed 'Evidence Reference Matrix' form is mandatory. Failure to do so means that the IEPA will return the project report without it being reviewed. You may choose to use your own version of the Evidence Reference form, providing it clearly maps evidence to the KSBs and is confirmed as suitable by City & Guilds before use.

All the evidence submitted must be in a format that can be opened by the IEPA; where evidence cannot be opened, the project report will be returned without it being reviewed.

Presentation requirements

Your **presentation** will be based on the project that has been carried out. You may choose the way in which you deliver the content of your presentation. When submitting the presentation materials to City & Guilds, you must outline details of visual aids to be used and specify any equipment required for the presentation.

Your presentation must include the following:

- a summary of the main aspects of the project
- context/ implications/recommendations from the project
- practical application of knowledge, skills and behaviours
- business recommendations/ outcomes of the project, including visualisations
- any follow-on outcomes
- actions and next steps.

Your presentation materials form part of your overall project for assessment by the IEPA and therefore your presentation must be work that is your own.

Time allowed for preparing and submitting the presentation

You should complete and submit the project presentation materials after the Gateway process and within **eight weeks** of the EPA start date.

Component 2: Presentation with Questioning

Your presentation with questioning session will take place after the project report has been assessed by the IEPA. The questioning is a structured discussion between you and the IEPA, focusing on coverage of the work-based project. The session will explore relevant aspects of your work, including how it was carried out, in more detail.

Your presentation with questioning session will be booked by your training provider who will agree a time and date with the City & Guilds End-point Assessment team during a planning meeting. You will have **ten days'** notice of the presentation with questioning date so that you can prepare for the session.

Purpose of the questioning

The purpose of the IEPA questioning is to:

- check the knowledge and skills shown in your project
- explore the underpinning reasoning where the supporting notes may require additional detail
- clarify any questions the IEPA has from their assessment of your project
- confirm and validate judgements about the quality of your work
- provide further evidence for the IEPA to make a holistic decision about the grade to be awarded.

Assessment conditions

The presentation with questioning session will be delivered in a controlled environment free from distractions and external influence via online video conferencing. The conditions under which the session will take place will be arranged with the City & Guilds End-point Assessment team.

The questioning will be conducted by the same IEPA who assessed your work-based project. They will also make the final grading decision.

Time allowed for presentation and questioning

The presentation with questioning will last for a minimum of **40 minutes**. Your presentation will typically last for 20 minutes and the questions and answers will typically last for 20 minutes. The questions will be held following the presentation. At least eight questions will be asked. The IEPA has the discretion to increase the time of both the presentation and questioning by up to 10% to allow you to complete your last point.

Recording forms

Recording forms can be found in **9770-12 Data Analyst Recording Forms** document that is available in a Word format. Please see below for a summary of the recording forms that are available for this assessment.

Recording form	Purpose	Who should complete	Where it can be found
Evidence Reference Matrix – Project with Presentation and Questioning*	To be used to record evidence that will support the presentation with questioning session.	Apprentice/employer/training provider/IEPA	9770-12 Data Analyst Recording Forms
Declaration of Authenticity – Project with Presentation and Questioning	Confirms the authenticity of the evidence submitted.	Apprentice/employer/training provider	9770-12 Data Analyst Recording Forms

* To facilitate comprehensive, consistent mapping of the evidence requirements, use of the City & Guilds supplied 'Evidence Reference Matrix' form is strongly recommended. The apprentice and/or training provider may choose to use their own version of the Evidence Reference form, but the form must:

- clearly map evidence to the KSBs
- be confirmed as suitable by City & Guilds before it is used.

Grading criteria

Descriptors			
KSB	Fail	<p>Pass:</p> <p>Apprentices must meet all the pass descriptors in order to achieve a pass.</p>	<p>Distinction:</p> <p>In addition to the pass criteria, apprentices must demonstrate all the following distinction descriptors in order to get a distinction.</p>
K3	Does not meet the pass criteria	Outlines and applies the principles of data analysis lifecycle to the steps of data analysis.	N/A
K4		Describes the principles of data including open, public, administrative and research data and how they relate to the data used within the project	N/A
K8		Identifies quality risks in data analysis and outlines methods to mitigate, escalate and/or resolve them	Evaluates the outcomes of data analysis and suggests alternative tools/methods which would be of benefit to all stakeholders.
K9		Outlines and applies the principles for defining customer requirements and implements findings in data analytics planning and outputs.	N/A
K11		Describes the tools and methods used by their organisation for data analysis and identifies which were used within the project with reasoning for the choices made to achieve the best outcome.	Evaluates the outcomes of data analysis and suggests alternative tools/methods which would be of benefit to all stakeholders.
K12		Outlines the choice of organisational data architecture.	N/A
S1		Operates data systems in compliance with all organisational and legislative requirements including principles of Privacy by Design.	N/A
S2		Outlines and applies the principles of data analysis lifecycle to the steps of data analysis.	N/A
S3		Demonstrates a reasoned application of the principles of data classification. Explains where any flexibilities in application have been applied and their purpose.	N/A

S4	Analyses data sets, taking account of different data structures and database designs.	Demonstrates the use of data sets with different data structures and database designs to solve problems or improve the accuracy or efficiency of data analysis.
S6	Identifies quality risks in data analysis and outlines methods to mitigate, escalate and/or resolve them.	N/A
S7	Outlines and applies the principles for defining customer requirements and implements findings in data analytics planning and outputs.	Analyses the requirements of the customer to produce a data analysis plan which provides an optimum solution.
S8	Demonstrates how data from different sources is combined and prepared for data analysis setting out how they identified the risks and challenges inherent in combining data within the project.	N/A
S12	Communicates and collaborates with all relevant stakeholders and adapts communication style to meet audience and situational requirements.	N/A
S15	Describes the tools and methods used by their organisation for data analysis and identifies which were used within the project with reasoning for the choices made to achieve the best outcome.	N/A
B3	Describes how they work independently and collaboratively, detailing their impact on the work of others.	N/A
B4	Acts independently to establish logical and analytical solutions such as exploring new data sets or resolving issues within the data	Evaluates the outcomes of data analysis and suggests alternative tools/methods which would be of benefit to all stakeholders.

Assessment 701 Professional Discussion with Portfolio

Assessment specification

Assessment	Description	Coverage	Grading
701	Professional Discussion with Portfolio	Knowledge: K1, K2, K5, K6, K7, K10, K13, K14, K15 Skills: S5, S9, S10, S11, S13, S14 Behaviours: B1, B2, B5, B6, B7	X/P/D

Overview

This assessment will take the form of a professional discussion to draw out the best of the apprentice's competence and cover the KSBs assigned to the assessment method. A professional discussion is a two-way discussion which involves both the apprentice and the IEPA actively listening and participating in a formal conversation. It gives the apprentice the opportunity to make detailed and proactive contributions to confirm their competency across the KSBs mapped to this method.

The rationale for this assessment method is to draw out KSBs, in particular behaviours, which would not naturally occur during other assessment methods. It enables the apprentice to demonstrate the application of skills and behaviours as well as knowledge and allows scope for the apprentice to demonstrate the depth and breadth of KSBs. The assessment method also mirrors the day-to-day work of a data analyst as it is commonplace for people in this occupation to engage in detailed technical discussions.

Task instructions for the Centre/End-point Assessment Customer/Employer

The apprentice will prepare a portfolio of evidence during the on-programme phase of their apprenticeship to support the professional discussion. The portfolio will be submitted in line with City & Guilds requirements at the Gateway.

The professional discussion should be booked by the training provider for the apprentice. The time and date of the professional discussion should be arranged with the City & Guilds End-point Assessment team at the planning meeting.

The professional discussion is a structured discussion between the apprentice and the appointed City & Guilds IEPA only, focusing on the portfolio of evidence. It covers both what the apprentice has produced and how they have done it. This enables the End-point Assessment to include the full range of core and technical skills, knowledge and understanding, as well as the underpinning behaviours. The interview can draw on broader experience from the workplace, but the initial and the primary focus is on the work presented in the portfolio.

Assessment conditions

The professional discussion will be undertaken by the same IEPA who has assessed the apprentice's portfolio of evidence. This IEPA will also make the grading decision.

The professional discussion will be delivered in a controlled environment free from distractions and external influence, via online video conferencing. The employer/training provider should ensure that the assessment environment is maintained. This could include ensuring that appropriate signposting and other arrangements are in place that will maintain a suitable environment throughout the duration of the assessment activity. The conditions under which the professional discussion session will take place will be arranged with the City & Guilds End-point Assessment team.

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

The IEPA will have **ten days** to review the contents of the portfolio to generate appropriate questions before the professional discussion takes place.

The apprentice will have **a minimum of ten days'** notice of the date for the professional discussion.

Time allowed for the professional discussion

The professional discussion will last for a minimum of **60 minutes**. The IEPA has the discretion to increase the time of the questioning by up to 10% to allow the apprentice to complete their last answer.

Grading

The professional discussion will be graded fail, pass or distinction. The City & Guilds IEPA will allocate the grade using the 'Grading criteria' table provided later in this section.

Prior to the professional discussion

The apprentice will prepare a portfolio of evidence during the on-programme phase of their apprenticeship to support the professional discussion and submit it at the Gateway in line

with City & Guild requirements. The IEPA will use the contents of the portfolio to familiarise themselves with the apprentice's work and to identify discussion areas for the professional discussion.

The portfolio is not directly assessed. It underpins the professional discussion and therefore will not be marked by the IEPA.

The apprentice's manager/ mentor will typically support the development of the portfolio in accordance with organisational policy and procedures.

The employer/training provider and apprentice must ensure the content of the portfolio covers the relevant KSBs and grading descriptors mapped to this assessment method, as indicated in the 'Grading criteria' table provided later in this section.

Guidance on submitting the portfolio of evidence

The portfolio is a concise collection of the apprentice's best pieces of evidence selected from the breadth of available evidence. It efficiently demonstrates the apprentice's performance in relation to the KSBs and grading descriptors and showcases their highest quality work.

The portfolio will be used by the IEPA as the basis for the professional discussion and the apprentice can use it to provide tangible evidence to support their accounts of their work during the discussion.

Types of evidence

Ideally the evidence should be produced in electronic format or scanned/photographed to give a clear electronic representation, as it must be submitted electronically to City & Guilds for End-point Assessment. Suitable evidence sources are outlined in the **Portfolio Requirements** below. Other relevant sources of evidence sources may also be acceptable.

Portfolio requirements

The evidence contained in the portfolio must adequately demonstrate the apprentice's knowledge, skills and behaviours (KSBs) that will be assessed by the professional discussion.

The apprentice's portfolio should meet the following requirements:

- A portfolio of examples that can be used to underpin the professional discussion.
- The evidence must adequately demonstrate the apprentice's knowledge, skills and behaviours (KSBs) that will be assessed by the professional discussion.
- Evidence should be mapped against the KSBs for this assessment method. The 'Evidence Reference Matrix' is provided in the **9770-12 Data Analyst Recording Forms** document for this purpose. To facilitate comprehensive, consistent mapping of the evidence requirements, use of the City & Guilds supplied form is strongly recommended. The apprentice and/or training provider may choose to use their own version of the Evidence Reference form, but the form must:
 - clearly map evidence to the KSBs
 - be confirmed as suitable by City & Guilds before it is used.
- There should be at least one piece of evidence relating to each of the knowledge, skills and behaviours mapped to the professional discussion. Evidence may be used holistically to demonstrate more than one KSB. A qualitative as opposed to quantitative approach is suggested.
- It is expected that there will typically be ten pieces of discrete evidence in total.

- Evidence should include:
 - work projects produced by the apprentice, e.g. written accounts of activities that have been completed, photographic evidence and work products, work instructions, safety documentation, technical reports, drawings, organisational policies and procedures as appropriate to the activities.
 - progress review documentation, witness testimonies and feedback from colleagues and/ or clients.
- Reflective accounts and self-assessments must **not** be included as evidence.

The evidence provided in the portfolio must be valid and attributable to the apprentice. The portfolio of evidence must contain a statement from the employer and apprentice confirming this. City & Guilds have provided a 'Declaration of Authenticity' form for this purpose in the **9770-12 Data Analyst Recording Forms** document.

When including witness testimonies in the portfolio of evidence, the testimonies must include:

- their relationship with the apprentice
- their name and job title
- evidence that was generated on programme
- approximate date of work-based examples
- clear examples of direct observation where the apprentice has demonstrated competency against the standard whilst on programme.

The evidence must come from a relevant witness, such as a manager or a customer who is giving their account of what the apprentice has done in their job role. Note that reflective accounts and self-assessments must **not** be included as evidence in the portfolio.

All evidence must be of the apprentice's own work. For any teamwork included in the portfolio, the evidence must clarify and focus only on the apprentice's contribution.

Where necessary, confidentiality and data protection requirements must be adhered to, e.g. permissions for use of video/images containing identifiable 3rd parties (such as clients), anonymisation of documentation and permissions from clients when submitting material commissioned by them.

Where the number of pieces of evidence in the portfolio is excessive, the IEPA will return the portfolio **without** it being reviewed. City & Guilds will contact the customer asking for the evidence to be revised and resubmitted. In exceptional circumstances, it may be necessary to move the EPA date to accommodate the submission of portfolio evidence and allow the IEPA to review the portfolio in preparation for the EPA event.

All the evidence submitted must be in a format that can be opened by the IEPA; where evidence cannot be opened, e.g. evidence that is linked to an e-portfolio or embedded within a document, the portfolio will be returned without it being reviewed. In exceptional circumstances, it may be necessary to move the EPA date to accommodate the submission of the missing portfolio evidence and allow the IEPA to review the portfolio in preparation for the EPA event.

Selecting evidence

Before selecting the evidence to form the portfolio, the apprentice should consider the following:

- the grading descriptors and relevant KSBs to be covered by the portfolio
- the type of evidence that can be presented (see above)
- the amount of evidence that should be presented
- the currency of evidence which must be produced while the apprentice is undertaking their apprenticeship.

To assemble the portfolio, the apprentice should consider all the evidence they have available that shows they have met the requirements being assessed. Evidence collected towards the end of their apprenticeship programme, as they become independent in their work, is likely to provide the most holistic evidence – i.e. covering a number of KSBs and grading descriptors at once. From this, they should select evidence that **most efficiently** meets all the relevant grading descriptors and KSBs and which demonstrate their **best performance**.

While there may be some overlap between the evidence collected, multiple pieces of evidence showing coverage of the same grading descriptors and KSBs should not normally be submitted. A discrete piece of evidence is a singular piece of evidence that can holistically be assessed across a range of KSBs and grading descriptors.

An apprentice should consider these two questions when selecting work to form their portfolio:

1. Which pieces holistically (most efficiently) give evidence that together cover all the relevant grading descriptors and KSBs?
2. Is this the **best** evidence I have, showing that I have met all the requirements for the pass and distinction grade?

Confirming the evidence selection

When the apprentice has selected the evidence to form their portfolio, this must be reviewed by the employer/training provider to ensure:

- all assessment requirements have been met
- it is in line with any requirements relating to the type and amount of evidence required
- that the evidence originated on-programme
- there is no unnecessary duplication of evidence against the same KSBs and grading descriptors
- the work selected represents the best evidence available in relation to the grading descriptors and KSBs
- the clarity of any images or scanned evidence is sufficient to determine the quality of the original evidence
- authenticity of evidence has been established.

Preparing evidence for submission

Evidence being uploaded for EPA must be presented as follows:

- each piece of evidence must have a header containing the name of the apprentice, the date the evidence was produced, and an evidence reference number. It is good practice, where possible, to add a handwritten/e-signature although this is not mandatory.
- each piece of evidence must be referenced to the KSB(s) it is being submitted against on the 'Evidence Reference Matrix' form (found in the 9770-12 Data Analyst Recording Forms) or agreed alternative form.

A 'portfolio checklist' has been created to help apprentices and employer/training provider to ensure that all relevant information is accounted for.

Note: The submission of a fully completed 'Evidence Reference Matrix' (or agreed alternative form) is **mandatory**. Failure to do so means that the IEPA will return the Portfolio without it being reviewed.

In the case where evidence has been referenced into the 'Evidence Reference Matrix' (or agreed alternative form) but is not present within the portfolio, the IEPA will request the missing evidence from the customer.

This is to ensure that each piece of evidence is cross-referenced to each relevant KSB. Presenting the evidence in this way also formally confirms that it is the apprentice's own work.

Apprentice portfolio checklist		Tick when confirmed
1.	Is all evidence signed by the apprentice and dated? * E-signatures are also acceptable.	
2.	Is all evidence valid, authentic, current and sufficient (VACS)?	
3.	Does evidence clearly show it is the apprentice's individual work (and if involved in team work, is it clear what specific contribution the apprentice made)?	
4.	Does the evidence clearly demonstrate the apprentice's relevant knowledge?	
5.	Has the apprentice used the evidence reference form? And has all evidence been referenced?	
6.	Does it showcase the apprentice's best pieces of work?	
7.	Is the majority of the evidence holistic in its nature?	
8.	Have duplicate and irrelevant pieces of evidence been removed?	
9.	Is there sufficient evidence to cover the whole of the criteria and grading descriptors that are referenced?	
10.	Are any witness testimonies or employer references tailored to the apprentice?	
11.	Has any client/customer reference information been anonymised?	
12.	Are all external sources of information appropriately documented and referenced to the original source, showing clear understanding of how they relate to the criteria?	
13.	Has the appropriate stakeholder(s) e.g. employer/training provider checked whether the apprentice's portfolio meets all the required criteria and grading descriptors?	
* where witness testimonies are included as a piece of evidence these do not need to be signed by the apprentice but instead must be signed/authenticated as outlined in the rest of the EPA pack		
Reminder: You must upload the completed 'Evidence Reference Matrix' to EPA Pro in word format		

The portfolio must be accompanied by a mapping document, i.e. the 'Portfolio Evidence Matrix' provided in the **9770-12 Data Analyst Recording Forms** document, that clearly shows how the evidence is mapped against the relevant knowledge, skills and behaviours that are assessed by the professional discussion. The apprentice and/or training provider may choose to use their own version of the Evidence Reference form, providing it clearly maps evidence to the KSBs and is confirmed as suitable by City & Guilds before use.

Task instructions for the apprentice

You will prepare a portfolio of evidence during the on-programme phase of your apprenticeship to support the professional discussion. The portfolio will be submitted in line with City & Guilds requirements at the Gateway.

The professional discussion will be booked for you by your employer/centre. The time and date of the professional discussion will be arranged with the City & Guilds End-point Assessment team at the planning meeting.

The professional discussion is a structured discussion between you and the appointed City & Guilds IEPA only, focusing on the portfolio of evidence you have prepared during the on-programme phase of the apprenticeship. It covers both what you have produced and how you have done it. This enables the End-point Assessment to include the full range of core and technical skills, knowledge and understanding, as well as the underpinning behaviours. The interview can draw on broader experience from the workplace, but the initial and the primary focus is on the work presented in the portfolio.

Assessment conditions

The professional discussion will be undertaken by the same IEPA who assessed your portfolio of evidence. This IEPA will also make the grading decision.

The professional discussion will be delivered in a controlled environment free from distractions and external influence – presenting only to the City & Guilds IEPA. The professional discussion will take place via online video conferencing. The conditions under which the professional discussion will take place will be arranged with the City & Guilds End-point Assessment team.

You will have access to your own copy of the portfolio throughout the professional discussion to refer to as needed.

You will have **a minimum of ten days'** notice of the date for the professional discussion.

Time allowed for the professional discussion

The professional discussion will last for a minimum of **60 minutes**. The City & Guilds Independent End-point Assessor has the discretion to increase the time of the questioning by up to 10% to allow the apprentice to complete their last answer.

Grading

The professional discussion will be graded fail, pass or distinction. The City & Guilds IEPA will allocate the grade using the 'Grading criteria' table provided later in this section.

Prior to the professional discussion

You will have prepared a portfolio of evidence during the on-programme phase of your apprenticeship to support your professional discussion. Your portfolio is not directly assessed. It underpins your professional discussion and therefore will not be marked by the IEPA.

Your underpinning portfolio will have been submitted in line with City & Guilds requirements at the Gateway and must evidence all the KSBs mapped to this assessment method. The City & Guilds Independent End-point Assessor will use the contents of the portfolio to familiarise themselves with your work and identify discussion areas for your professional discussion.

Your portfolio must be accompanied by a mapping document, i.e. the 'Evidence Reference Matrix' available in the **9770-12 Data Analyst Recording Forms** document, that clearly shows how the evidence is mapped against the relevant knowledge, skills and behaviours that are assessed by the professional discussion. The apprentice and/or training provider may choose to use their own version of the Evidence Reference form, providing it clearly maps evidence to the KSBs and is confirmed as suitable by City & Guilds before use.

Guidance on submitting the portfolio of evidence

The portfolio is a concise collection of your best pieces of evidence selected from the breadth of available evidence. It efficiently demonstrates your performance in relation to the KSBs and grading descriptors and showcases your highest quality work.

The portfolio will be used by the IEPA as the basis for the professional discussion and you can use it to provide tangible evidence to support your accounts of your work during the discussion.

Types of evidence

Ideally the evidence should be produced in electronic format or scanned/photographed to give a clear electronic representation, as it must be submitted electronically to City & Guilds for End-point Assessment.

Suitable evidence sources are outlined in the **Portfolio Requirements** below. Other relevant sources of evidence sources may also be acceptable.

Portfolio requirements

The evidence contained in the portfolio must adequately demonstrate your knowledge, skills and behaviours (KSBs) that will be assessed by the professional discussion.

Your portfolio should meet the following requirements:

- A portfolio of examples that can be used to underpin the professional discussion.
- The evidence must adequately demonstrate the apprentice's knowledge, skills and behaviours (KSBs) that will be assessed by the professional discussion.
- Evidence should be mapped against the KSBs for this assessment method. The 'Evidence Reference Matrix' is provided in the **9770-12 Data Analyst Recording Forms** document for this purpose. To facilitate comprehensive, consistent mapping of the evidence requirements, use of the City & Guilds supplied form is strongly recommended. The apprentice and/or training provider may choose to use their own version of the Evidence Reference form, but the form must:
 - clearly map evidence to the KSBs
 - be confirmed as suitable by City & Guilds before it is used.
- There should be at least one piece of evidence relating to each of the knowledge, skills and behaviours mapped to the professional discussion. Evidence may be used holistically to demonstrate more than one KSB. A qualitative as opposed to quantitative approach is suggested.
- It is expected that there will typically be ten pieces of discrete evidence in total.
- Evidence should include:
 - work projects produced by the apprentice, e.g. written accounts of activities that have been completed, photographic evidence and work products, work instructions, safety documentation, technical reports, drawings, organisational policies and procedures as appropriate to the activities.

- progress review documentation, witness testimonies and feedback from colleagues and/ or clients.
- Reflective accounts and self-assessments must **not** be included as evidence.

The evidence provided in the portfolio must be valid and attributable to the apprentice. The portfolio of evidence must contain a statement from the employer and apprentice confirming this. City & Guilds have provided a 'Declaration of Authenticity' form for this purpose in the **9770-12 Data Analyst Recording Forms** document.

When including witness testimonies in the portfolio of evidence, the testimonies must include:

- their relationship with the apprentice
- their name and job title
- evidence that was generated on programme
- approximate date of work-based examples
- clear examples of direct observation where the apprentice has demonstrated competency against the standard whilst on programme.

The evidence must come from a relevant witness, such as a manager or a customer who is giving their account of what the apprentice has done in their job role.

Note that reflective accounts and self-assessments must **not** be included as evidence in the portfolio.

All evidence must be of your own work. For any teamwork included in the portfolio, the evidence must clarify and focus only your contribution.

Where necessary, confidentiality and data protection requirements must be adhered to, e.g. permissions for use of video/images containing identifiable 3rd parties (e.g. clients), anonymisation of documentation and permissions from clients when submitting material commissioned by them.

Note: The submission of a fully completed 'Evidence Reference Matrix' (or agreed alternative form) is mandatory. Failure to do so means that the IEPA will return your Portfolio **without** it being reviewed.

In cases where evidence has been referenced to in the 'Evidence Reference Matrix' (or agreed alternative form) but is **not** present within your portfolio, the IEPA will request the missing evidence.

All the evidence submitted must be in a format that can be opened by the IEPA; where evidence cannot be opened, e.g. evidence that is linked to an e-portfolio or embedded within a document, your portfolio will be returned **without** it being reviewed. In exceptional circumstances it may be necessary to move your EPA date to accommodate the submission of your missing portfolio evidence and allow the IEPA to review your portfolio in preparation for the EPA event.

Selecting evidence

Before selecting the evidence to form the portfolio, you should consider the following:

- the grading descriptors and relevant KSBs to be covered by the portfolio

- the type of evidence that can be presented (see above)
- the amount of evidence that should be presented
- the currency of evidence which must be produced while undertaking your apprenticeship.

To assemble the portfolio, you should consider all the evidence you have available that shows you have met the requirements being assessed. Evidence collected towards the end of your apprenticeship programme, as you become independent in your work, is likely to provide the most holistic evidence – i.e. covering a number of KSBs and grading descriptors at once. From this, you should select evidence that **most efficiently** meets all the relevant grading descriptors and KSBs and which demonstrate your **best performance**. While there may be some overlap between the evidence collected, multiple pieces of evidence showing coverage of the same grading descriptors and KSBs should not normally be submitted. A discrete piece of evidence is a singular piece of evidence that can holistically be assessed across a range of KSBs and grading descriptors.

There are two questions that you should consider when selecting work to form your portfolio:

1. Which pieces holistically (most efficiently) give evidence that together cover all the relevant grading descriptors and KSBs?
2. Is this the **best** evidence I have, showing that I have met all the requirements for the pass and distinction grade?

Confirming the evidence selection

When you have selected the evidence to form your portfolio, this must be reviewed by your employer/training provider.

Preparing evidence for submission

Evidence being uploaded for EPA must be presented as follows:

- each piece of evidence must have a header containing the name of the apprentice, the date the evidence was produced and an evidence reference number. It is good practice, where possible, to add a handwritten/e-signature, although this is not mandatory.
- each piece of evidence must be referenced to the KSB(s) it is being submitted against on the 'Evidence Reference Matrix – Portfolio of Evidence' (found in the 9770-12 Data Analyst Recording Forms) or agreed alternative form.

This is to ensure that each piece of evidence is cross-referenced to each relevant KSB.

Presenting the evidence in this way also formally confirms that it is your own work.

A 'portfolio checklist' has been created to help apprentices and employers/training providers ensure that all relevant information is accounted for. This checklist is available in the **9770-12 Data Analyst Recording Forms** document for EPA customers.

Recording forms

Recording forms can be found in **9770-12 Data Analyst IEPA Recording Forms** document that is available in a Word format.

Please see below for a summary of the recording forms that are available for this assessment.

Recording form	Purpose	Who should complete	Where it can be found
Evidence Reference Matrix – Portfolio of Evidence*	To be used to record evidence that will support the professional discussion.	Apprentice/employer/training provider/IEPA	9770-12 Data Analyst Recording Forms
Declaration of Authenticity – Portfolio of Evidence	Confirms the authenticity of the evidence submitted.	Apprentice/employer/training provider	9770-12 Data Analyst Recording Forms
Apprentice Portfolio Checklist – Portfolio of Evidence	A checklist to help apprentices and employers ensure that all relevant information is accounted for.	Apprentice	9770-12 Data Analyst Recording Forms

* To facilitate comprehensive, consistent mapping of the evidence requirements, use of the City & Guilds supplied 'Evidence Reference Matrix' form is strongly recommended. The apprentice and/or training provider may choose to use their own version of the Evidence Reference form, but the form must:

- clearly map evidence to the KSBs
- be confirmed as suitable by City & Guilds before it is used.

Grading criteria

Descriptors			
KSB	Fail	Pass: Apprentices must meet all the pass descriptors in order to achieve a pass.	Distinction: In addition to the pass criteria, apprentices must demonstrate all the following distinction descriptors in order to get a distinction.
K1	Does not meet the pass criteria	Explains how current, relevant legislation impacts on the safe use of data and how their role contributes to a productive, safe, and secure working environment.	N/A
K2		Explains the relevant data policies and procedures for the organisation and identifies the data standards to be reached.	N/A
K5		Explains the differences between Structured and Unstructured data.	x
K6		Describes the fundamentals of data structures and database system design and explains how they are implemented and maintained.	N/A
K7		Explains the principles of user experience and domain context for data analytics.	N/A
K10		Explains approaches to combining data from different sources to improve accuracy and / or efficiency and / or maximise benefits to the organisation and / or customer.	Evaluates the benefits and risks inherent in combining data from different sources.
K13		Explains and applies the principles of statistics for analysing datasets.	N/A
K14		Explains the principles of descriptive, predictive and prescriptive analytics and demonstrates how they have been applied within their own data analysis practice.	Critically evaluates the risks and benefits of predictive analytics.

K15	Explains the ethical aspects associated with the collation and use of data and justifies why this is important.	N/A
S5	Describes impact on user experience and domain context of data analysis.	N/A
S9	Describes the relevant tools or techniques used for working with the data systems architecture in their organisation.	N/A
S10	Explains and applies the principles of statistics for analysing datasets.	N/A
S11	Explains the principles of descriptive, predictive and prescriptive analytics and demonstrates how they have been applied within their own data analysis practice.	Critically evaluates the risks and benefits of predictive analytics.
S13	Explains how they have applied analytical techniques for data mining and time series forecasting and other modelling techniques.	N/A
S14	Demonstrates data analysis activities involving the collation and interpretation of qualitative and quantitative data and displays results using visual representations.	Compares and contrasts visual data representation approaches and how they aid understanding by stakeholders.
B1	Explains how current, relevant legislation impacts on the safe use of data and how their role contributes to a productive, safe, and secure working environment.	N/A
B2	Describes how they have appropriately adapted their activities to meet minor, unexpected changes at work.	N/A
B5	Describes how they have established an approach to identifying issues quickly, investigating and solving complex problems and applying appropriate solutions. Describes how they have ensured the true root cause of any	N/A

B6	problem is found and a solution is identified which prevents recurrence.	
	Identifies and explains challenges in their work and how they overcame them, providing an outline of lessons learned.	N/A
B7	Identifies areas of work where they adapted to changing contexts within the scope of a project, direction of the organisation or Data Analyst role.	N/A

Useful contacts

EPA Gateway Team: Initial Reservation and Gateway	epa.gateway@cityandguilds.com
EPA Events Team: Bookings and Cancellations (Post Gateway)	EPA@cityandguilds.com
Technical Advisors: Sector Specific Guidance	Technical Advisors contact details
City & Guilds Sales Team	directsales@cityandguilds.com
ILM Sales Team	01543 266 867 customer@i-l-m.com
City & Guilds Customer Services Team	01924 930800 (option 5 EPA) centresupport@cityandguilds.com
ILM Customer Services Team	01543 266 867 customer@i-l-m.com
Digital Sales: on-programme delivery resources	Digitalsales@cityandguilds.com
Digital Credentials	digitalsupport@cityandguilds.com
Digital Credentials: bulk email uploads	DCServiceTeam@cityandguilds.com

Who we are

City & Guilds Limited (Registered Company 16513878) is the Awarding Organisation for City & Guilds qualifications.

About City & Guilds

City & Guilds is the global skills partner, empowering people, organisations and economies to develop the skills they need for growth. With almost 150 years of trusted expertise, we support people into work, help them develop on the job and move into the next job.

We work with Governments, employers, training providers, colleges and industry stakeholders to design and deliver high-quality training, qualifications, assessments and credentials that lead to meaningful career progression. We understand the life changing link between skills development, social mobility and success. Our solutions span critical sectors including construction, engineering, transport, energy and electrical, serving over 1 million learners annually.

Through our comprehensive portfolio of brands and trusted global network, we set industry-wide standards for technical, behavioural and commercial skills to improve performance and productivity. We believe you can achieve your potential - and we're here to help make it happen.

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