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all you need to know.

NCFE Level 3 Certificate in Data (603/7882/7)

Qualification Specification

Qualification summary

Qualification title	NCFE Level 3 Certificate in Data		
Ofqual qualification number (QN)	(603/7882/7)	**Aim reference**	(60378827)
Guided learning hours (GLH)	195	**Total qualification time (TQT)**	245
Minimum age	16		
Qualification purpose	This qualification is designed to equip learners with the knowledge and skills required to enter a job role within the digital workforce area such as a data technician. This qualification is mapped against the Level 3 Data Technician apprenticeship standard. It is a standalone qualification that does not form part of the apprenticeship standard or end-point assessment.		
Grading	Achieved/not yet achieved		
Assessment method	Internally assessed and externally quality assured portfolio of evidence.		
Apprenticeship standards	This qualification maps to the Level 3 Data Technician Apprenticeship Standard.		

Contents

Section 1: introduction

Please note this is a draft version of the qualification specification and is likely to be subject to change before the final version is produced for the launch of the qualification.

If you are using this qualification specification for planning purposes, please make sure that you are using the most recent version.

Aims and objectives

This qualification aims to:

- focus on the study of data in the digital sector
- offer breadth and depth of study
- provide opportunities to acquire a number of practical skills

The objectives of this qualification are to:

- understand how to source data
- collate and format data for processing and analysis
- analyse data to support business outcomes
- present and communicate data to the appropriate audience
- store, manage and distribute data securely
- collaborate with others and practice continuous professional development

Support handbook

This qualification specification must be used alongside the mandatory support handbook on the qualifications page on the NCFE website, which contains additional supporting information to help with the planning, delivery and assessment.

This qualification specification contains all of the qualification-specific information you will need that is not covered in the support handbook.

Entry guidance

This qualification is designed to equip learners with the knowledge and skills required to enter a job role within the digital workforce area such as a data technician.

Entry is at the discretion of the centre. However, learners should be aged 16 and above to undertake this qualification.

There are no specific prior skills or knowledge a learner must have for this qualification. However, learners may find it helpful if they have already achieved a level 2 qualification in a similar subject area.

Centres are responsible for ensuring that all learners are capable of achieving the learning outcomes and complying with the relevant literacy, numeracy and health and safety requirements.

Learners registered on this qualification should not undertake another qualification at the same level, or with the same or similar title, as duplication of learning may affect funding eligibility.

Achieving this qualification

Please refer to the list of units in appendix A or the unit summaries in section 2 for further information.

To achieve this qualification, learners must successfully demonstrate their achievement of all learning outcomes of the units as detailed in this qualification specification.

Progression

Learners who achieve this qualification could progress to the following:

- employment
  - Data Technician
- further education
  - Level 3 Certificate in Digital Support Technician
  - Level 4 Award in Programming (Python)
  - Level 4 Diploma: Data Analyst (HTQ)
  - Level 4 Diploma: Cyber Security Engineer (HTQ)

Progression to higher level studies

Level 3 qualifications aim to facilitate progression to higher level study, which requires knowledge and skills different from those gained at levels 1 and 2. Level 3 qualifications enable learners to:

- apply factual, procedural and theoretical subject knowledge
- use relevant knowledge and methods to address complex, non-routine problems
- interpret and evaluate relevant information and ideas
- understand the nature of the area of study of work
- demonstrate an awareness of different perspectives and approaches
- identify, select and use appropriate cognitive and practical skills
- use appropriate research to inform actions
- review and evaluate the effectiveness of their own methods

Resource requirements

To assist in the delivery of this qualification, centres and learners should have access to the following mandatory resources to cover all the appropriate learning outcomes:

- computer laptop/desktop with internet access
- web browser software/applications
- infographic creation software
- appropriate software for analysis of data and capable of reading .xls/.csv files (for example, Python, Microsoft (MS) Excel, Google Sheets, Open Office)
- electronic data collection software (for example, MS Forms, Google Forms)
- generic presentation software (for example, MS PowerPoint, Google Slides)
- a printer
- suitable datasets
- audio/video recording equipment

Real work environment (RWE) requirement

Where the assessment guidance for a unit allows, it is essential that organisations wishing to operate a RWE do so in an environment that reflects a real work setting and replicates the key characteristics of the workplace in which the skill to be assessed is normally employed. This is often used to support simulation.

How the qualification is assessed

Assessment is the process of measuring a learner's skill, knowledge and understanding against the standards set in a qualification.

This qualification is internally assessed and externally quality assured.

The assessment consists of 1 component:

- an internally assessed portfolio of evidence which is assessed by centre staff and externally quality assured by NCFE (internal quality assurance (IQA) must still be completed by the centre as usual)

Internal assessment

Each learner must create a portfolio of evidence generated from appropriate assessment tasks, which demonstrates achievement of all the learning outcomes associated with each unit. The assessment tasks should allow the learner to respond to a real life situation that they may face when in employment. On completion of each unit, learners must declare that the work produced is their own and the assessor must countersign this. Examples of suitable evidence for the portfolio for each unit are provided in section 2.

A centre must create their own internal assessment tasks. There are 4 essential elements in the production of successful centre-based assessment tasks.

These are:

- ensuring the assessment tasks are meaningful with clear, assessable outcomes
- appropriate coverage of the content, learning outcomes, or assessment criteria
- having a valid and engaging context or scenario
- including sufficient opportunities for stretch and challenge for higher attainers. Please see the guidance document for creation of internal assessment tasks on our website

Assessment guidance is provided for each unit. Assessors can use other methods of assessment as long as they are valid and reliable and maintain the integrity of the assessment and of the standards required of this qualification.

Enquiries about results

All enquiries relating to learners' results must be submitted in line with our enquiries and appeals about results and assessment decisions policy, which is available on the policies & documents page on the NCFE website.

Not yet achieved grade

A result that does not achieve a pass grade will be graded as a not yet achieved grade. Learners may have the opportunity to resit.

Section 2: unit content and assessment guidance

This section provides details of the structure and content of this qualification.

The types of evidence listed are for guidance purposes only. Within learners' portfolios, other types of evidence are acceptable if all learning outcomes are covered and if the evidence generated can be internally and externally quality assured. For approval of methods of internal assessment other than portfolio building, please contact your external quality assurer.

The explanation of terms explains how the terms used in the unit content are applied to this qualification. This document can be found in section 3.

Unit 01 Understand how to source data (L/618/8650)

Unit summary	The learner will understand where common sources of data can be found, the purpose and function of data formats and their importance for analysis. They will also understand the purpose and function of data architecture for a specific business requirement.
Guided learning hours	20
Level	3
Mandatory/optional	Mandatory

Learning outcome 1

The learner will:

1 Understand where common sources of data can be found

The learner can:

1.1 Explain the **role of data** in the context of a digital world
1.2 Explain the **internal datasets** that can be used for analysis
1.3 Explain the **external datasets** that can be used for analysis
1.4 Describe the **open datasets** that can be used for analysis

Learning outcome 2

The learner will:

2 Understand data formats and their importance for analysis for a specific business requirement

The learner can:

2.1 Explain the functions and purpose of **data formats**
2.2 Explain the importance of **selecting the appropriate data format** for data analysis

Learning outcome 3

The learner will:

3 Understand the purpose and function of data architecture for a specific business requirement

The learner can:

3.1 Explain the **purpose, principles and functions of data architecture**
3.2 Explain the **purpose and function of integration**
3.3 Evaluate the factors that impact the data architecture based on
- access requirements
- security requirements

Assessment guidance

Delivery and assessment
This unit maps to the Level 3 Data Technician Apprenticeship Standard. This qualification is a standalone qualification that does not form part of the apprenticeship standard or end-point assessment. The knowledge statements K1, K2, K4 and K15, of the apprenticeship standard, are covered in learning outcomes 1 to 3 of this unit. The explanation of terms (section 3) explains how the terms used in the unit content are applied to this qualification.
Types of evidence
Evidence could include: • report • presentation (including notes or audio explanation) • evidence of research

AC	Assessment guidance

1.1	**role of data** – the learner should cover as a minimum:
	• how data underpins every digital interaction and connection across the digital landscape
	• digital interactions and processes (for example, customer centricity)
	  ○ transactional data
	  ▪ purchasing (for example, invoices, statements, credit)
	  ○ booking data
	  ▪ reservations (for example, availability, peak and off-peak pricing)
	• data used for recording and monitoring
	  ○ online applications (for example, access, targeted marketing across applications)
	  ○ physical world (for example, location, transactions across multiple sites)
	  ○ smart devices (for example, virtual assistant, home management)
	  ○ Internet of Things (IoT)
	  ○ technologies (for example, building management, transportation, manufacturing)
	  ○ customer interactions/centricity

1.2	**internal datasets** – the learner should cover as a minimum: • inventory (for example, sales) • financial • marketing • customer database • HR/personnel
1.3	**external datasets** – the learner should cover as a minimum: • external organisations • sharing agreements • trusted sources
1.4	**open datasets** – the learner should cover as a minimum: • Department for Environment, Food and Rural Affairs (DEFRA) • local government • Office of National Statistics (ONS)
2.1	**data formats** – the learner should cover as a minimum: • numeric integer • temporal • text • geospatial • media • logical • references
2.2	**selecting the appropriate data format** – the learner should cover as a minimum:

	• consistency (using the same data format when merging datasets, knowing what data you want) • calculation (using the appropriate format, knowing what you will do with the data) • conversion (convert data from one type to another for analysis, for example, costs stored as text rather than a number)

3.1	**purpose, principles and functions of data architecture** – the learner should cover as a minimum:
	purpose
	• a framework guiding the development and operation of information systems and data storage
	• a set of rules and policies that can define and explain the type of data
	principles
	• access – data available for user functions
	• definition – data is valued as an asset
	• managed – data is in a form which facilitates maintenance and understanding of the data pipeline process
	• secured – data has the appropriate security controls applied and is only accessed by appropriate users
	• shared – data can be extracted and shared between communities, without compromising safety or exporting sensitive information
	functions
	• organise data – grouped by selected criteria
	  ○ data types (for example, string (or str or text), character (or char), integer (or int), float (or real), boolean (or bool))
	  ○ formats (for example, database, spreadsheets, comma-separated values (CSV) file)
	• data storage – specifying the different types of data storage and its location
	  ○ on premises
	  ○ cloud
	  ○ third-party
	  ○ hybrid
	• permissions and access across different systems (for example, file server)
	  ○ levels of permissions
	  ○ levels of access
	  ○ multi-factor authentication
	• data structures
	  ○ structured
	  ○ unstructured
	  ○ semi-structured

3.2	**purpose and function of integration** – the learner should cover as a minimum: • cost • size of organisation • third party applications • benefits such as efficiency
3.3	**access requirements** – the learner should cover as a minimum: • user • systems **security requirements** – the learner should cover as a minimum: • confidentiality • integrity • availability

Unit 02 Collate and format data for processing and analysis (R/618/8651)

Unit summary	The learner will be able to collect, format, blend, link and save datasets from multiple sources. They will be able to prepare data for analysis as well

	as test and assess confidence in the data and its integrity for a specific business requirement.
Guided learning hours	55
Level	3
Mandatory/optional	Mandatory

Learning outcome 1

The learner will:

1 Be able to collect, format and save datasets for a specific business requirement

The learner can:

1.1 Explain the **methods** of collecting datasets
1.2 Source the appropriate data that contains the required information
1.3 Migrate the appropriate data to the required database
1.4 Apply an **appropriate format** for the data
1.5 Export and **save the data**

Learning outcome 2

The learner will:

2 Be able to prepare data for analysis for a specific business requirement

The learner can:

2.1 Select the **appropriate tool** for data analysis
2.2 Apply appropriate **data cleansing measures**

Learning outcome 3

The learner will:

3 Be able to test and assess confidence in the data and its integrity

The learner can:

3.1 Explain the **impact and effect of bias** on the integrity and usability of data
3.2 Apply appropriate **validation and verification methods**

Learning outcome 4

The learner will:

4 Be able to blend datasets from multiple sources for a specific business requirement

The learner can:

4.1 Explain the **importance of blending data** from multiple sources
4.2 Apply appropriate **blended data techniques** from multiple sources
4.3 Provide blended data in an **appropriate format**

Learning outcome 5

The learner will:

5 Be able to manipulate and link external datasets

The learner can:

5.1 Explain the importance of manipulating and linking different datasets
5.2 Apply appropriate **manipulation and linking techniques**
5.3 Provide linked dataset in an appropriate format

Assessment guidance

Delivery and assessment
This unit maps to the Level 3 Data Technician Apprenticeship Standard. This qualification is a standalone qualification that does not form part of the apprenticeship standard or end-point assessment. The knowledge statement K3 and the skills statements S1, S2 and S16, of the apprenticeship standard, are covered in learning outcomes 1 and 2. The knowledge statements K10, K11 and the skills statements S8 and S9, of the apprenticeship standard, are covered in learning outcomes 2 and 3. The knowledge statement K6 and the skills statements S4, S5 and S6, of the apprenticeship standard, are covered in learning outcomes 4 and 5. For learning outcome 2 – at Level 3 learners are expected to apply critical thinking skills when cleansing data, so datasets must contain duplicates where data appears twice but with different data between both, and mismatched data to demonstrate the learner can cleanse data, for example, include 5 errors. For learning outcome 4 – blended data refers to identifying different data sets and blending them into one dataset. For learning outcome 5 – linked data refers to identifying different data sets but not combining into one dataset instead they can be linked together, for example, a live dataset and a historical dataset. The explanation of terms (section 3) explains how the terms used in the unit content are applied to this qualification.
Types of evidence
Evidence could include: • report • presentation (including notes or audio explanation) • evidence of research

AC	Assessment guidance
1.1	**methods** – the learner should cover as a minimum: • Application Programming Interface (API) • export and import • using formats such as CSV, json, XML
1.4	**appropriate format** – the learner should cover as a minimum: • non-proprietary • unencrypted • uncompressed
1.5	**save the data** – the learner should cover as a minimum: • file naming conventions
2.1	**appropriate tool** – the learner should cover as a minimum: • open source (for example, SQL/Python) • Excel
2.2	**data cleansing measures** – the learner should cover as a minimum: • remove duplicates • remove blanks • remove repetitions • type checks (for example, typos) • sense checks (for example, out of date data) • parse data (for example, format telephone numbers according to a national standard)

3.1	**impact and effect of bias** – the learner should cover as a minimum: • validity • reliability • repeatability • source of data (for example, primary or secondary) • appropriateness to task based on bias identified within the dataset
3.2	**validation methods** – the learner should cover as a minimum: • check that user-entered data is sensible and in correct/appropriate format • length checks • acceptable characters (for example, @ symbol) • check digit • format check • lookup table • presence check • range check • review external systems for consistency against original data • quality assurance • spell check **verification methods** – the learner should cover as a minimum: • how data is collected • cross checking techniques • check that user-entered data is accurate
4.1	**importance of blending data** – the learner should cover as a minimum: • better business decisions • empowers a data analyst to incorporate data of any type or any source into their analysis for faster • deeper business insights

4.2	**blended data techniques** – the learner should cover as a minimum:
	• data joining
	  ○ inner join
	  ○ full join
	  ○ left/right join
	  ○ union join
	• fuzzy matching – matching search terms that are inexact (for example, search engine queries)
	• spatial matching – matching based on their spatial location (for example, emergency services allocation)
	• consolidation – combining separate worksheets into one worksheet
	• merging data – combining multiple datasets together in a single dataset

4.3	**appropriate format** – the learner should cover as a minimum: • database report • Excel (for example, pivot table)
5.2	**manipulation and linking techniques** – the learner should cover as a minimum: • Application Programming Interface (API) • fuzzy matching – matching search terms that are inexact (for example, search engine queries) • spatial matching – matching based on their spatial location (for example, emergency services allocation)

Unit 03 Analyse data to support business outcomes (Y/618/8652)

Unit summary	The learner will be able to apply appropriate statistical methods, algorithms and filter data for analysis to support a specific business requirement.
Guided learning hours	30
Level	3
Mandatory/optional	Mandatory

Learning outcome 1

The learner will:

1 Be able to apply statistical methods to identify trends and patterns in data for a specific business requirement

The learner can:

1.1 Explain the importance of using **statistical methods**
1.2 Explain the **common techniques used in statistical methods**
1.3 Apply appropriate statistical methods to interpret and identify trends and patterns in data
1.4 Justify the outcome of data findings

Learning outcome 2

The learner will:

2 Be able to apply algorithms to identify trends and patterns in data based on a specific business requirement

The learner can:

2.1 Explain the **role of algorithms** to identify trends and patterns in data
2.2 Perform **predictive data analytics** based on a dataset using algorithms
2.3 Analyse the outcome of data findings

Learning outcome 3

The learner will:

3 Be able to filter data according to business requirements

The learner can:

3.1 Identify the **elements** that need filtering
3.2 Carry out **filtering techniques**

Assessment guidance

Delivery and assessment
This unit maps to the Level 3 Data Technician Apprenticeship Standard. This qualification is a standalone qualification that does not form part of the apprenticeship standard or end-point assessment. The knowledge statements K7, K8 and K9 and the skills statement S7, of the apprenticeship standard, are covered in learning outcomes 1, 2 and 3. Use a specific scenario/case study, based on a specific business need, for learning outcomes 2 and 3. The explanation of terms (section 3) explains how the terms used in the unit content are applied to this qualification.
Types of evidence
Evidence could include: • report • presentation (including notes or audio explanation) • evidence of research

AC	Assessment guidance
1.1	**statistical methods** – the learner should cover as a minimum: • descriptive statistics • inferential statistics • parametric • nonparametric
1.2	**common techniques used in statistical methods** – the learner should cover as a minimum: • standard deviation – variance from the mean • linear regression – identify relationship between data variables • clustering – used to group related data points within a dataset • time series modelling – identifies patterns over time (for example, daily or weekly trends) • correlation – identifies a relationship between datasets • chi-square test – identifies whether there is an association between categorical variables • bootstrapping – validation of a predictive model performance • cross validation – technique for validating the model performance
2.1	**role of algorithms** – the learner should cover as a minimum: • summarises trends and patterns in numerical and graphical data • identifies what methods are suitable for different applications • makes forecasts based on historical trends and patterns • supports assumptions and implications behind forecasting methods • provides predictive analytics based on a data model • use of machine learning in relation to automation
2.2	**predictive data analytics** – the learner should cover as a minimum: • forecast model (for example, Excel function) • classification model (for example, historical data)
3.1	**elements** – the learner should cover as a minimum: • date • location • dataset requirements (for example, any specific business requirements set by the centre)
3.2	**filtering techniques** – the learner should cover as a minimum: • inclusion of data • exclusion of data

Unit 04 Present and communicate data to the appropriate audience (H/618/8654)

Unit summary	The learner will understand visualisation tools, communication methods and the characteristics that inform the appropriate method. The learner will be able to apply visualisation techniques and communicate data and results to the appropriate audience for a specific business requirement.
Guided learning hours	30
Level	3
Mandatory/optional	Mandatory

Learning outcome 1

The learner will:

1 Understand the range of methods, formats and techniques used to communicate data to different roles within an organisation

The learner can:

1.1 Explain the **range of methods** relevant to communicating data
1.2 Explain the **range of formats** applied to communications
1.3 Explain the **range of communication techniques** that can be applied
1.4 Explain the **audience requirements** when communicating to a range of roles within an organisation

Learning outcome 2

The learner will:

2 Be able to communicate data and results to a specific audience and business requirement

The learner can:

2.1 Apply the appropriate communication methods to present data and results
2.2 Summarise gathered data using a narrative to communicate to a specific audience

Learning outcome 3

The learner will:

3 Understand the range of visualisation tools and techniques used to present data for specific audiences and business requirements

The learner can:

3.1 Explain the **range of visualisation tools** used to present data for business requirements
3.2 Explain the **range of visualisation techniques** used to present data for specific audiences

Learning outcome 4

The learner will:

4 Be able to apply a range of visualisation tools and techniques to present data for specific audiences and business requirements

The learner can:

4.1 Apply **advanced and non-advanced visualisation tools** to present data
4.2 Apply the appropriate visualisation techniques for specific audiences
4.3 Apply the appropriate visualisation techniques for business requirements
4.4 Evaluate the decision process of selected visualisation techniques for specific audiences and business requirements

Assessment guidance

Delivery and assessment
This unit maps to the Level 3 Data Technician Apprenticeship Standard. This qualification is a standalone qualification that does not form part of the apprenticeship standard or end-point assessment. The knowledge statements K4, K5, K12 and K13, and the skills statements S10, S11, S13, of the apprenticeship standard, are covered in learning outcomes 1, 2, 3 and 4. For learning outcome 2 the learner will need to determine a meaning behind the data and provide a summary of the key findings in a concise way. For learning outcome 4 the learner will need to choose the most appropriate visualisation tool for their chosen technique, for example using Excel in order to create a bar graph instead of using Microsoft Word. The learner will also need to apply a minimum of 2 visualisation tools and at least 1 of the 2 must be an advanced tool. The explanation of terms (section 3) explains how the terms used in the unit content are applied to this qualification.
Types of evidence
Evidence could include: • role play • discussions • report • presentation (including notes or audio explanation) • evidence of research

AC	Assessment guidance
1.1	**range of methods** – the learner should cover as a minimum: • written (for example, email, business case, report, presentation) • verbal (for example, public speaking, conversation) • non-verbal (for example, body language, such as facial gestures, posture, use of hands when presenting, active listening, visualisation techniques)
1.2	**range of formats** – the learner should cover as a minimum: • presentation • reports • dashboard • infographics • video
1.3	**range of communication techniques** – the learner should cover as a minimum: • technical/non-technical (for example, complexity levels of language) • active listening • tailoring to audience • use of open questioning • reflection and review • storyboarding
1.4	**audience requirements** – the learner should cover as a minimum: • requirements of audience (for example, technical or non-technical, job role, level of authority) • specified timeframes of communication • prioritisation of communication • method of communication (for example, a presentation) • accessibility of communication • virtual communications (for example, Zoom, MS Teams)

3.1	**range of visualisation tools** – the learner should cover as a minimum: • PowerPoint • Power BI • Python • R • Scala • Excel • Matlab

3.2	**range of visualisation techniques** – the learner should cover as a minimum:
	• charts/graphs
	  ○ scatter graph
	  ○ bar chart
	  ○ line graph
	  ○ pie chart
	• heat maps
	• flowcharts
	• tables
	• images/infographics
	• XR
	• 3D models/printing

4.1	**advanced and non-advanced visualisation tools** – the learner should cover as a minimum: • advanced tools (for example, Python, R, Scala) • non-advanced tools (for example, Excel, Google Sheets)

Unit 05 Store, manage and distribute data securely (K/618/8655)

Unit summary	The learner will understand the legal and regulatory requirements and apply data handling, storing and distribution of data securely for a specific business requirement.
Guided learning hours	30
Level	3
Mandatory/optional	Mandatory

Learning outcome 1

The learner will:

1 Understand legal and regulatory requirements that apply to data analysis

The learner can:

1.1 Explain the **purpose and function of the General Data Protection Regulation (GDPR)**
1.2 Explain the **purpose of the Data Protection Act (DPA)**
1.3 Distinguish the **primary differences** between the GDPR and the DPA
1.4 Explain the **functions of Intellectual Property Rights (IPR)**
1.5 Explain the **purpose and applications of the data sharing code of practice**
1.6 Describe the **role of the Information Commissioner's Office (ICO)**

Learning outcome 2

The learner will:

2 Understand the legitimate and ethical use of data

The learner can:

2.1 Explain the **ethical considerations** when analysing data
2.2 Explain the **principles of consent** in the use of data
2.3 Explain the **ethical considerations related to primary and secondary use of data**

Learning outcome 3

The learner will:

3 Be able to securely store, manage and distribute data for a specific business requirement

The learner can:

3.1 Explain the **security controls and procedures** to ensure data security
3.2 Explain the **impacts of common threats** to organisations
3.3 Apply **data handling** methods to manage data in a compliant manner
3.4 Apply **storing and distributing methods** to data in a compliant manner
3.5 Summarise the appropriate methods, security controls and procedures to meet the required outcome of data analysis

Assessment guidance

Delivery and assessment
This unit maps to the Level 3 Data Technician Apprenticeship Standard. This qualification is a standalone qualification that does not form part of the apprenticeship standard or end-point assessment. The knowledge statement K13, and the skills statement S12, of the apprenticeship standard, are covered in learning outcomes 1, 2 and 3. For learning outcome 3, the learner will need to extract data in line with the data sharing code of practice. The explanation of terms (section 3) explains how the terms used in the unit content are applied to this qualification.
Types of evidence
Evidence should include a minimum of 2 of the following: • case studies • questioning • coursework • research documents • report • presentation (including notes or audio explanation)

AC	Assessment guidance
1.1	**purpose and function of the GDPR** – the learner should cover as a minimum: **purpose** • protect individuals' fundamental rights and freedoms • protect individuals' right to protection of their personal data • personal identifiable data – right to erasure • the right to one's private life within the European Convention on Human Rights (ECHR) **function** • lawfulness, fairness and transparency • purpose limitation • data minimisation • accuracy • storage limitation • integrity and confidentiality (for example, security) • accountability • data security
1.2	**The purpose of the DPA 2018** – the learner should cover as a minimum: • protects the privacy and integrity of data held on individuals by businesses and other organisations • ensures that individuals (for example, customers and employees) have access to their data and can correct it, if necessary • personal identifiable data – right to erasure
1.3	**primary differences** – the learner should cover as a minimum: • the GDPR applies not only to European Union (EU) organisations but also non-EU organisations in certain circumstances • the DPA applies only to companies that control the processing of personal data • the GDPR extends the law to those companies that process personal data on behalf of controllers/processors (for example, if you buy a new television on the internet and give

	your contact details to the web-based store to enable delivery of that television, only the store would be liable for looking after your personal information under the DPA, whereas, under the GDPR, the store and the delivery company could both be liable) • the GDPR allows the regulator to fine non-compliant companies up to 4% of their global turnover, whereas, under the DPA, the largest fine allowed is £500,000 • under the DPA, the regulator recommends that organisations notify it if they experience a data breach; however, under the GDPR there is a requirement to notify the regulator and individuals affected under certain circumstances
1.4	**functions of IPR** – the learner should cover as a minimum: • copyright • licensing • ownership
1.5	**purpose and applications of the data sharing code of practice** – the learner should cover as a minimum: **purpose** • practical guide for organisations defining how to share personal data in compliance with data sharing legislation **applications** • follow good practice recommendations • communicate to data owners (for example, understanding of their rights) • undertake data sharing impact assessment • create a data sharing agreement • data processing agreements • business continuity plan (for example, a pandemic)
1.6	**role of the ICO** - the learner should cover as a minimum: • publish legal requirements and codes of practice • enforcement and fine organisations • record data breaches
2.1	**ethical considerations** – the learner should cover as a minimum: • consent – informed consent must be gained for use and re-use • permissions and access – only appropriate people should have access to data • storage and archiving – data should only be stored when needed • re-use – clearly defined purpose of re-use of data in line with consent • avoiding bias – when using automation or machine learning • privacy – protecting the data subject at individual and organisation level • impact – effect on individual or organisation • ownership – who owns the data in the analysis • third-party – sharing data with external organisations • is it ethically appropriate to analyse the data
2.2	**principles of consent** – the learner should cover as a minimum: • consent not assumed • freely given • specific • informed • unambiguous
2.3	**ethical considerations related to primary and secondary use of data** – the learner should cover as a minimum: • primary and secondary use – understanding when anonymisation and aggregation can and should be used • secondary data must be used as agreed for the primary purpose of collected data • the individual needs to be informed of the primary purpose for data • any secondary use of data must be anonymised or further consent needs permission from the individual

	• clear purpose for what the data is being used for and cannot be interpreted in another way, the wording needs to be unambiguous
3.1	**security controls and procedures** – the learner should cover as a minimum: • anonymisation/pseudonymisation • encryption • segregation • access control • change monitoring
3.2	**impacts of common threats** – the learner should cover as a minimum: • financial penalties • reputation (for example, loss of custom) • legal consequences (for example, GDPR/DPA 2018 penalties) • loss of sensitive information • unauthorised access to the system or service • overload of the system to affect a service • corruption of a system or data • damage to system operations • disclosure of private information and credentials • unauthorised access to restricted physical environment • essential security updates not installed
3.3	**data handling** – the learner should cover as a minimum: • encryption to a data file or restrict access to file through password or the restriction of rights
3.4	**storing and distributing methods** – the learner should cover as a minimum: • storage with rights-controlled access through permissions

Unit 06 Collaborate with others and practice continuous professional development (M/618/8656)

Unit summary	The learner will understand the role of data within a business context and be able to operate as part of a multi-functional team. They will learn how to inform their own continuous personal development (CPD) through identification of technological developments for a specific business requirement.
Guided learning hours	30
Level	3
Mandatory/optional	Mandatory

Learning outcome 1

The learner will:

1 Understand the role of data within a business context

The learner can:

1.1 Explain the importance of data in resolving customer issues
1.2 Explain the importance of data to brand awareness
1.3 Explain the importance of data to cultural awareness and diversity
1.4 Explain the importance of data to accessibility
1.5 Explain the **importance of data to an internal and external audience**
1.6 Explain the **importance of data to a business**

Learning outcome 2

The learner will:

2 Be able to operate as part of a multi-functional team for a specific business requirement

The learner can:

2.1 Explain the **range of roles** within an organisation
2.2 Identify the **communication tools** for collaborative working
2.3 Produce technical documentation of data and results to meet a specific business requirement
2.4 Discuss the benefits of organisational and priority skills to a collaborative project
2.5 Apply organisational and priority skills to a collaborative project

Learning outcome 3

The learner will:

3 Be able to inform own continuous personal development (CPD) through identification of technological developments for a specific business requirement

The learner can:

3.1 Evaluate technological developments from a **range of possible sources**
3.2 Evaluate different learning techniques based on own personal development plan (PDP)

Assessment guidance

Delivery and assessment
This unit maps to the Level 3 Data Technician Apprenticeship Standard. This qualification is a standalone qualification that does not form part of the apprenticeship standard or end-point assessment. The knowledge statements K4, K14, K16 and the skills statements S14, S15, S17, S18, of the apprenticeship standard, are covered in learning outcomes 1, 2 and 3. For learning outcome 3, the learner can produce a PDP to reflect and identify their training, skills, and learning in support of the existing evidence for this unit. The explanation of terms (section 3) explains how the terms used in the unit content are applied to this qualification.
Types of evidence
Evidence should include a minimum of 3 of the following: • case studies • questioning • coursework • research documents • report • presentation (including notes or audio explanation)

AC	Assessment guidance
1.5	**importance of data to an internal and external audience** – the learner should cover as a minimum: • level of technical knowledge
1.6	**importance of data to a business** – the learner should cover as a minimum: • decision making • business intelligence • business improvement • sales and marketing • understanding customer needs/concerns
2.1	**range of roles** – the learner should cover as a minimum: • customer • manager • client • peer/colleague • technical • non-technical
2.2	**communication tools** – the learner should cover as a minimum: • business communication platform (for example MS Teams) • cloud computing, productivity and collaboration tools (for example MS 365, Google Workspace, Microsoft Planner, Trello, Asana and Slack)
3.1	**range of possible sources** – the learner should cover as a minimum: • forums • textbooks • academic papers • white papers • supplier literature • search engines • websites

	• blogs • wikis • social media • conferences • developer kits • e-learning • subject matter expert

Assessment strategy

Knowledge learning outcomes:

- assessors will need to be both occupationally knowledgeable and qualified to make assessment decisions
- internal quality assurers will need to be both occupationally knowledgeable and qualified to make quality assurance decisions

Competence/skills learning outcomes:

- assessors will need to be both occupationally competent and qualified to make assessment decisions
- internal quality assurers will need to be both occupationally knowledgeable and qualified to make quality assurance decisions

Section 3: explanation of terms

This table explains how the terms used at level 3 in the unit content are applied to this qualification (not all verbs are used in this qualification).

Apply	Explain how existing knowledge can be linked to new or different situations in practice.
Analyse	Break the subject down into separate parts and examine each part. Show how the main ideas are related and why they are important. Reference to current research or theory may support the analysis.
Clarify	Explain the information in a clear, concise way.
Classify	Organise according to specific criteria.
Collate	Collect and present information arranged in sequential or logical order.
Compare	Examine the subjects in detail and consider the similarities and differences.
Critically compare	This is a development of compare where the learner considers the positive aspects and limitations of the subject.
Consider	Think carefully and write about a problem, action, or decision.
Demonstrate	Show an understanding by describing, explaining, or illustrating using examples.
Describe	Write about the subject giving detailed information in a logical way.
Develop (a plan/idea which…)	Expand a plan or idea by adding more detail and/or depth of information.
Diagnose	Identify the cause based on valid evidence.
Differentiate	Identify the differences between two or more things.
Discuss	Write a detailed account giving a range of views or opinions.
Distinguish	Explain the difference between two or more items, resources, pieces of information.
Draw conclusions (which…)	Make a final decision or judgement based on reasons.
Estimate	Form an approximate opinion or judgment using previous knowledge or considering other information.
Evaluate	Examine strengths and weaknesses, arguments for and against and/or similarities and differences. Judge the evidence from the different perspectives and make a valid conclusion or reasoned judgement. Reference to current research or theory may support the evaluation.
Explain	Provide detailed information about the subject with reasons showing how or why. Responses could include examples to support these reasons.

Extrapolate	Use existing knowledge to predict possible outcomes which might be outside the norm.
Identify	Recognise and name the main points accurately (some description may also be necessary to gain higher marks when using compensatory marking).
Implement	Explain how to put an idea or plan into action.
Interpret	Explain the meaning of something.
Judge	Form an opinion or make a decision.
Justify	Give a satisfactory explanation for actions or decisions.
Perform	Carry out a task or process to meet the requirements of the question.
Plan	Think about and organise information in a logical way using an appropriate format.
Provide	Identify and give relevant and detailed information in relation to the subject.
Reflect	Learners should consider their actions, experiences or learning and the implications of this for their practice and/or professional development.
Review and revise	Look back over the subject and make corrections or changes.
Select	Make an informed choice for a specific purpose.
Show	Supply evidence to demonstrate accurate knowledge and understanding.
State	Give the main points clearly in sentences or paragraphs.
Summarise	Give the main ideas or facts in a concise way.

Section 4: support

Support materials

The following support materials are available to assist with the delivery of this qualification and are available on the NCFE website:

- learner's evidence tracking log (LETL)
- qualification fact sheet

Other support materials

The resources and materials used in the delivery of this qualification must be age-appropriate and due consideration should be given to the wellbeing and safeguarding of learners in line with your institute's safeguarding policy when developing or selecting delivery materials.

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Appendix A

Units

To make cross-referencing assessment and quality assurance easier, we have used a sequential numbering system in this document for each unit.

Knowledge only units are indicated by a star. If a unit is not marked with a star, it is a skills unit or contains a mix of knowledge and skills.

Mandatory units

Unit number	Regulated unit number	Unit title	Level	GLH
Unit 01	L/618/8650	Understand how to source data	3	20
Unit 02	R/618/8651	Collate and format data for processing and analysis	3	55
Unit 03	Y/618/8652	Analyse data to support business outcomes	3	30
Unit 04	H/618/8654	Present and communicate data to the appropriate audience	3	30
Unit 05	K/618/8655	Store, manage and distribute data securely	3	30
Unit 06	M/618/8656	Collaborate with others and practice continuous professional development	3	30

The units above may be available as stand-alone unit programmes. Please visit our website for further information.