City & Guilds Entry Level 3, Level 1, Level 2 Award in Principles of Using Mathematical Techniques (3844-12-20-22)

Version 2.3 (September 2024)

Qualification Handbook

Qualification at a glance

Subject area	**Foundations for learning and life**
City & Guilds number	**3844-20/12/22**
Age group approved	16+
Entry requirements	n/a
Assessment	E-assessment, Written exam
Grading	Pass/Fail
Approvals	Fast track approval
Support materials	Sample assessments
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	City & Guilds qualification number	Regulatory reference number	GLH	TQT
City & Guilds Entry Level Certificate in the Principles of Using Mathematical Techniques (Entry 3)	3844-20	601/1288/8	130	130
City & Guilds Level 1 Certificate in the Principles of Using Mathematical Techniques	3844-12	600/7655/0	98	130
City & Guilds Level 2 Certificate in the Principles of Using Mathematical Techniques	3844-22	600/7656/2	98	130

Version and date	Change detail	Section
2.1 December 2013	Amended assessment information re paper-based tests	Assessment
2.2 September 2017	Added TQT and GLH details Deleted QCF	Qualification at a Glance, Structure Appendix
2.3 September 2024	handbook reviewed and updated to the new template	Throughout

Contents

1 Introduction

This document tells you what you need to do to deliver the qualifications:

Area	Description
Who are the qualifications for?	These qualifications are for candidates who need to develop mathematical skills at a level necessary to function and progress in life, work or in society in general. For many this will also support progression towards a GCSE Mathematics or Level 2 Functional Mathematics learning programme.
What do the qualifications cover?	In response to the Skills Funding Agency's statement of February 2012, City & Guilds has developed a suite of qualifications to support learners to progress towards a learning programme in GCSE Mathematics or level 2 Functional Mathematics. In line with the Skills Funding Agency statement, these qualifications focus on the core mathematics skills required to enable this progression, with a particular focus on the knowledge, understanding, accuracy and resilience required to make progress. These qualifications are suitable for learners who need to demonstrate skills and knowledge at a given level for access to employment, further learning or another specific reason. The learning outcomes and assessment criteria are based upon the national Adult Numeracy standards and mapped to the Adult Numeracy Core Curriculum. The assessments do not cover 100% of the Adult Numeracy standards, but address specific key areas, many of which are highlighted by employers (through individual consultation and in national research - CBI Education and Skills Survey, May 2011) as lacking in many prospective employees e.g. solid number skills, mental arithmetic, measures and conversions. The qualifications do not explicitly seek to assess problem solving capability, although some questions will be scenario-based, allowing those who aim to progress to a Functional Skills learning programme to build a solid foundation for the technical skills, as well as confidence to work under timed conditions. The qualifications in this suite provide robust assessment of selected skills gained. They are offered as single, objective, summative assessment tests which are externally set and externally marked and taken under timed conditions. They provide a level of flexibility for learners who require an assessment opportunity 'when ready' and may suit those learners for whom a portfolio approach is not suitable.

Area	Description
What opportunities for progression are there?	The qualifications allow learners to progress: • from Entry 3 to Level 1 to Level 2 within this suite • to 3847 Mathematics Skills qualifications • a City & Guilds vocational qualification • an Apprenticeship programme • to employment • towards a GCSE in Mathematics • towards a Level 2 Functional Skills qualification in Mathematics.
Who did we develop the qualifications with?	The qualifications have been developed in association with a wide range of providers and employers
Is it part of an apprenticeship framework or initiative?	Not specifically, although the qualifications may provide a useful addition to Foundation Learning programmes.

Structure

To achieve the **City & Guilds Entry Level Certificate in the Principles of Using Mathematical Techniques (Entry 3)**, learners must achieve **13** credits from the mandatory unit.

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
Mandatory			
K/505/2399	Unit 002	Principles of using mathematical techniques	13

To achieve the **Level 1 Certificate in the Principles of Using Mathematical Techniques**, learners must achieve 13 credits from the mandatory unit.

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
Mandatory			
F/504/5524	Unit 102	Principles of using mathematical techniques	13

To achieve the **Level 2 Certificate in the Principles of Using Mathematical Techniques**, learners must achieve **13** credits from the mandatory unit.

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
Mandatory			
J/504/5525	Unit 202	Principles of using mathematical techniques	13

Total Qualification Time (TQT)

Total Qualification Time (TQT) is the number of notional hours which represents an estimate of the total amount of time that could reasonably be expected for a learner to demonstrate the achievement of the level of attainment necessary for the award of a qualification.

TQT comprises of the following two elements:

1) the number of hours that an awarding organisation has assigned to a qualification for guided learning
2) an estimate of the number of hours a learner will reasonably be likely to spend in preparation, study or any other form of participation in education or training, including assessment, which takes place as directed by – but, unlike guided learning, not under the immediate guidance or supervision of – a lecturer, supervisor, tutor or other appropriate provider of education or training.

Title and level	GLH	TQT
City & Guilds Entry Level Certificate in the Principles of Using Mathematical Techniques (Entry 3)	130	130
City & Guilds Level 1 Certificate in the Principles of Using Mathematical Techniques	98	130
City & Guilds Level 2 Certificate in the Principles of Using Mathematical Techniques	98	130

2 Centre requirements

Approval

Full approval

To offer this qualification/these qualifications, new centres will need to gain both centre and qualification approval. Please refer to the document **Centre Approval Process: Quality Assurance Standards** for further information.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before designing a course programme.

Resource requirements

Centre Staffing

To meet the quality assurance criteria for these qualifications, the centre must ensure that the following internal roles are undertaken:

- Quality Assurance Co-ordinator
- Trainer/Tutor

These roles are defined more fully in City & Guilds quality assurance documentation.

Further supporting quality assurance documents can be found here:
https://www.cityandguilds.com/delivering-our-qualifications/centre-development/centre-document-library

Staff delivering these qualifications must be able to demonstrate that they meet the following occupational expertise requirements. They should:

- competent in the Mathematics being taught and assessed
- fully conversant with the National Standards for Adult Numeracy and the subject criteria for Functional Skills Mathematics

Teaching qualifications and subject specialist qualifications

It is good practice for staff to hold or be working towards a recognised teacher training qualification and/or relevant subject-specific teaching qualification, and depending on delivery setting/location this might be necessary to obtain public funding.

Continuing professional development (CPD)

Centres are expected to support their staff in ensuring that their knowledge remains current of the occupational area and of best practice in delivery, mentoring, training, assessment and quality assurance, and that it takes account of any national or legislative developments.

Quality assurance

Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications. Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance and City & Guilds is responsible for external quality assurance. All external quality assurance processes reflect the minimum requirements for verified and moderated assessments, as detailed in the Centre Assessment Standards Scrutiny (CASS), section H2 of Ofqual's General Conditions. For more information on both CASS and City and Guilds Quality Assurance processes visit: the What is CASS? and Quality Assurance Standards documents on the City & Guilds website.

Standards and rigorous quality assurance are maintained by the use of:

- Internal quality assurance
- City & Guilds external quality assurance.

In order to carry out the quality assurance role, Internal Quality Assurers must

- have appropriate teaching and vocational knowledge and expertise
- have experience in quality management/internal quality assurance
- hold or be working towards an appropriate teaching/training/assessing qualification
- be familiar with the occupation and technical content covered within the qualification.

External quality assurance for the qualification will be provided by City & Guilds EQA process. EQAs are appointed by City & Guilds to approve centres, and to monitor the assessment and internal quality assurance carried out by centres. External quality assurance is carried out to ensure that assessment is valid and reliable, and that there is good assessment practice in centres.

The role of the EQA is to:

- provide advice and support to centre staff
- ensure the quality and consistency of assessments and marking/grading within and between centres by the use of systematic sampling
- provide feedback to centres and to City & Guilds.

Learner entry requirements

City & Guilds does not set entry requirements for these qualifications. However, centres must ensure that candidates have the potential and opportunity to gain the qualification successfully.

Age restrictions

These qualifications are approved for learners aged 16 or above.

Access arrangements and reasonable adjustments

City & Guilds has considered the design of these qualification and their assessments in order to best support accessibility and inclusion for all learners. We understand however that individuals have diverse learning needs and may require reasonable adjustments to fully participate. Reasonable adjustments, such as additional time or alternative formats, may be provided to accommodate learners with disabilities and support fair access to assessment.

Access arrangements are adjustments that allow candidates with disabilities, special educational needs, and temporary injuries to access the assessment and demonstrate their skills and knowledge without changing the demands of the assessment. These arrangements must be made before assessment takes place.

Equality legislation requires City & Guilds to make reasonable adjustments where a disabled person would be at a substantial disadvantage in undertaking an assessment.

It is the responsibility of the centre to ensure at the start of a programme of learning that candidates will be able to access the requirements of the qualification.

Please refer to the Joint Council for Qualifications (JCQ) access arrangements and reasonable adjustments and access arrangements - when and how applications need to be made to City & Guilds. For more information documents are available on the City & Guilds website.

Access arrangements for on-line examinations

City & Guilds **Access to assessment and qualifications** document can be downloaded from our website www.cityandguilds.com/policy.

For access arrangements which require City & Guilds authorisation i.e. readers, scribes, over 25% extra time, centres must make an application to City & Guilds one month before the month of the examination, e.g. by 31 October for December examinations. Please refer to chapter 2 in the booklet 'Access to assessment and qualifications' for guidance.

Additional time

Centres can usually schedule time extensions for candidates needing up to 25% extra time. A guide on how to do this can be found at www.cityandguilds.com/e-volve

Time can be added in percentage multipliers of the test time, in increments of five e.g. 5%, 10% up to 25%.

Requests for over 25% extra time will need to be made to Policy & Regulation City & Guilds. Approval can be applied for and given for all online Principles of Using Mathematical Techniques exams, for the entire year.

Rest Breaks

The candidate must, as usual, be supervised during any short rest breaks and the system must be invigilated also to ensure that no one else can access the candidate's test or accidentally close the test down. When a break is needed the on screen e-assessments may be paused. The use of the pause function through the SecureAssess portal will lock the assessment as well as stop the clock. This function should also be used in the event of an emergency.

Documentation for access arrangements

Evidence in support of an access arrangement must be held on file at your centre. Please see chapter 4 in the booklet 'Access to assessment and qualifications' for the evidence required for applications for a candidate with learning difficulties.

Use of an assistant

The e-volve software allows candidates to use a keyboard or mouse and does not support other means. If the keyboard or mouse is not a standard one we recommend that the student is given access to the e-volve Navigation test well in advance of the proposed examination date using the special keyboard or mouse. Should any difficulties be experienced with the equipment we would be happy to consider the use of an assistant.

3 Delivering the qualification

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific training needs
- support and guidance they may need when working towards their qualifications
- any units they have already completed or credit they have accumulated which is relevant to the qualification
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the learner fully understands the requirements of the qualifications, their responsibilities as a learner and the responsibilities of the centre. This information can be recorded on a learning contract.

Inclusion and diversity

City & Guilds is committed to improving inclusion and diversity within the way we work and how we deliver our purpose which is to help people and organisations develop the skills they need for growth.

More information and guidance to support centres in supporting inclusion and diversity through the delivery of City & Guilds qualifications can be found here:

Inclusion and diversity | City & Guilds (cityandguilds.com)

Sustainability

City & Guilds are committed to net zero. Our ambition is to reduce our carbon emissions by at least 50% before 2030 and develop environmentally responsible operations to achieve net zero by 2040 or sooner if we can. City & Guilds is committed to supporting qualifications that support our customers to consider sustainability and their environmental footprint.

More information and guidance to support centres in developing sustainable practices through the delivery of City & Guilds qualifications can be found here:

Our Pathway to Net Zero | City & Guilds (cityandguilds.com)

Centres should consider their own carbon footprint when delivering this qualification and consider reasonable and practical ways of delivering this qualification with sustainability in mind. This could include:

- reviewing purchasing and procurement processes (such as buying in bulk to reduce the amount of travel time and energy, considering and investing in the use of components that can be reused, instead of the use of disposable or single use consumables)

- reusing components wherever possible
- waste procedures (ensuring that waste is minimised, recycling of components is in place wherever possible)
- minimising water use and considering options for reuse/salvage as part of plumbing activities wherever possible.

Support materials

The following resources are available for these qualifications:

Description	How to access
Sample assessments	www.cityandguilds.com
Fast track approval forms	www.cityandguilds.com
Promotional materials	www.cityandguilds.com

4 Assessment

Assessment of the qualification

Candidates must:

- successfully completed the on screen test set by City & Guilds for each mandatory unit

For the Entry Level Certificate in the Principles of Using Mathematical Techniques learners must achieve tests 002 (test 1 without a calculator) **and** 003 (test 2 with a calculator).

For the Level 1 Certificate in the Principles of Using Mathematical Techniques, learners must achieve tests 102 (test 1 without a calculator) **and** 103 (test 2 with a calculator).

For the Level 2 Certificate in the Principles of Using Mathematical Techniques, learners must achieve tests 202 (test 1 without a calculator) **and** 203 (test 2 with a calculator).

Tests are auto-marked and results available through the Walled Garden.

Assessment types			
Unit	**Title**	**Assessment method**	**Where to obtain assessment materials**
002	Principles of using mathematical techniques – test 1 (002 – without a calculator)	On screen tests using e-volve	Examinations provided on e-volve
002	Principles of using mathematical techniques – test 2 (003 – with a calculator)	On screen tests using e-volve	Examinations provided on e-volve.
102	Principles of using mathematical techniques – test 1 (102 – without a calculator)	On screen tests using e-volve	Examinations provided on e-volve
102	Principles of using mathematical techniques – test 2 (103 – with a calculator)	On screen tests using e-volve	Examinations provided on e-volve.
202	Principles of using mathematical techniques – test 1 (202 – without a calculator)	On screen tests using e-volve	Examinations provided on e-volve.
202	Principles of using mathematical techniques – test 2 (203- with a calculator)	On screen tests using e-volve	Examinations provided on e-volve.

Assessment strategy

City & Guilds has written the following assessments to use with these qualifications:

- live assignments that can be downloaded from the City & Guilds website
- sample assignments that can be downloaded from the City & Guilds website.

Recognition of prior learning (RPL)

Recognition of prior learning means using a person's previous experience or qualifications which have already been achieved to contribute to a new qualification.

RPL is not allowed for this qualification.

Test specifications

The way the knowledge is covered by each test is laid out in the tables below:

Permitted materials: Rough paper, pens and pencils, dictionaries or spell checks. Calculators where specified.

Candidates are not required to complete both calculator and non-calculator tests at the same time, however centres may wish to complete both tests in the same sitting.

At the start of every test candidates are presented with a brief tutorial on how to use each of the different item types. Please make sure the candidate reads through these screens before they press the 'start exam' button.

Graded: Pass/Fail

Test: 002	**Duration: 60 minutes Calculator permitted: No**		
Unit	**Outcome**	**Number of questions**	**Percentage %**
002	1 Be able to use numbers in problem solving	15-19	60-76
	2 Be able to use common measures in problem solving	6-10	24-40
	Total		100%

Test: 003	**Duration: 60 minutes Calculator permitted: Yes**		
Unit	**Outcome**	**Number of questions**	**Percentage %**
002	1 Be able to use numbers in problem solving	10-14	40-56
	2 Be able to use common measures in problem solving	5-7	20-28
	3 Be able to use data and statistical measure in problem solving	4-5	16-20
	Total		100%

Test: 102	**Duration: 60 minutes Calculator permitted: No**		

Unit	Outcome	Number of questions	Percentage %
102	1 Be able to use numbers in problem solving	19 - 23	63 - 77
	2 Be able to use common measures in problem solving	7 - 11	23 - 37
	Total	30	100%

Test: 103	**Duration: 60 minutes Calculator permitted: Yes**		
Unit	**Outcome**	**Number of questions**	**Percentage %**
102	1 Be able to use numbers in problem solving	12 - 16	40 - 53
	2 Be able to use common measures in problem solving	5 - 7	17 - 23
	3 Be able to use data and statistical measure in problem solving	8 - 12	27 - 40
	Total	30	100%

Test: 202	**Duration: 60 minutes Calculator permitted: No**		
Unit	**Outcome**	**Number of questions**	**Percentage %**
202	1 Be able to use numbers of any value in problem solving	16 – 20	53 - 67
	2 Be able to use common measures in different systems in problem solving	10 -14	33 -47
	Total	30	100%

Test:	**Duration: 60 minutes**		

203	Calculator permitted: Yes		
Unit	**Outcome**	**Number of questions**	**Percentage %**
202	1 Be able to use numbers of any value in problem solving	13 -17	43 - 57
	2 Be able to use common measures in different systems in problem solving	4 - 6	13 - 20
	3 Be able to use continuous and discrete data and statistical measure in problem solving	9 -13	30 -43
	Total	30	100%

5 Units

Structure of the units

These units each have the following:

- City & Guilds reference number
- Unit accreditation number (UAN)
- title
- level
- guided learning hours (GLH)
- credit value
- unit aim
- relationship to other standards
- learning outcomes, which are comprised of a number of assessment criteria
- range statements.

Guidance for delivery of the units

These qualifications comprise of a number of **units**. A unit describes what is expected of a competent person in particular aspects of their job.

Each **unit** is divided into **learning outcomes** which describe in further detail the skills and knowledge that a candidate should possess.

Each **learning outcome** has a set of **assessment criteria** (performance and knowledge and understanding) which specify the desired criteria that must be satisfied before an individual can be said to have performed to the agreed standard.

Range statements define the breadth or scope of a learning outcome and its assessment criteria by setting out the various circumstances in which they are to be applied.

Unit 002 Principles of using mathematical techniques

UAN:	K/505/2399
Level:	Entry 3
GLH:	130
Credit:	13
Relationship to other standards:	This unit is linked to the National Standards for Adult Numeracy and the Adult Numeracy Core Curriculum
Aim:	This unit has been devised to assess the candidates' knowledge on a range of techniques that are used in mathematical problems. This unit covers the use of number up to 1000, the use of common measures and instruments and the use of data.

Learning outcome

The learner will:

LO1 Be able to use numbers in problem solving

Assessment criteria

The learner can:

AC1.1 use **the four rules** in **whole number calculations** with and without a calculator
(N1/E3.1-N1/E3.6, N1/E3.9, N2/E3.4)
AC1.2 **estimate answers** to calculations
(N1/E3.7-N1/E3.8, N2/L1.11)
AC1.3 recognise **common fractions**
(N2/E3.1-N2/E3.2, N2/L1.11)
AC1.4 use **decimals** up to two places.
(N2/E3.3)

Range

The four rules

- add
- subtract
- multiply

•divide

Whole number calculations

- whole numbers up to 1000
- understand place value including zero as a place holder
- count on or back in 10s and 100s
- add and subtract three digit whole numbers
- read, write, order and compare numbers
- recognise odd and even numbers
- recall addition, subtraction and multiplication facts
- with and without a calculator

Estimate answers

- use rounding to estimate answers

Common fractions

- half, thirds, quarters, fifths, tenths
- recognise equivalent forms

Decimals

- read, write, and understand up to two places with and without a calculator
- use the four rules up to two places.

Learning outcome

The learner will:

LO2 Be able to use common measures in problem solving

Assessment criteria

The learner can:

AC2.1 use addition and subtraction for calculating **money** (MSS1/E3.1)

AC2.2 **estimate** answers to money calculations (MSS1/E3.2)

AC2.3 record **measures** using **non-standard units** and **standard units** (MSS1/E3.2 – MSS1/E3.7, MSS1/E3.9)

AC2.4 use **measuring instruments** (MSS1/E3.8 – MSS1/E3.9)

AC2.5 **solve practical problems** using mathematical properties of 2-D and 3-D shapes. (MSS2/E3.1)

Range

Money

- using decimal notation
- aligning decimal points and figures in columns

Estimate

- to the nearest 10p and pound (£)

Measures

- time in common date formats and am and pm
- length, including distance
- weight
- capacity
- temperature

Non-standard units
- imperial

Standard units
- metric

Measuring instruments
- suitable for length, weight, capacity and temperature

Solve practical problems
- using symmetry
- using right angles
- using side length

Learning outcome

The learner will:

LO3 Be able to use data in everyday situations.

Assessment criteria

The learner can:

AC3.1 extract information from **different sources** (HD1/E3.1)
AC3.2 **make comparisons** from bar chart and pictograms (HD1/E3.2)
AC3.3 use a tally to **record** information (HD1/E3.3)
AC3.4 **represent** information in **different ways**. (HD1/E3.4)

Range

Different sources
- lists
- tables
- diagrams
- bar charts
- pictograms

Make comparisons
- using height or length of bars
- number of pictures or icons

Record
- using a five bar gate tally

Represent
- using a title, axis and simple scale in a bar chart
- using a key for a pictogram
- labelling diagrams

Different ways
- tables, charts and diagrams

Unit 102 Principles of using mathematical techniques

UAN:	F/504/5524
Level:	1
Credit	13
GLH:	98
Relationship to other standards:	This unit is linked to the National Standards for Adult Numeracy and the Adult Numeracy Core Curriculum.
Aim:	This unit has been devised to assess the candidates' knowledge on a range of techniques that are used in mathematical problem s. This unit covers the use of numbers, the use of common measures, and the use of data and statistical measure.

Learning outcome

The learner will:

LO1 Be able to use numbers in problem solving

Assessment criteria

The learner can:

AC1.1 use **the four rules** in **whole number calculations** with and without a calculator (N1/L1.1-N1/L1.7, N2/L1.11)
AC1.2 **estimate answers** to calculations (N1/L1.8-N1/L1.9, N2/L1.11)
AC1.3 **find parts** of whole number quantities and measurements with and without a calculator (N2/L1.1-N2/L1.3, N2/L1.11)
AC1.4 use **the four rules** in **decimal calculations** with and without a calculator (N2/L1.3-N1/L1.7, N2/L1.11)
AC1.5 use **the four rules** in **percentage calculations** with and without a calculator (N2/L1.3, N2/L1.8-N2/L1.11)

Range

The four rules

- add
- subtract
- multiply
- divide

Whole number calculations

- whole numbers up to seven digits, including the use of zero as a place holder
- recognise numerical relationships
- simple ratio expressed in words
- direct proportion in two parts
- read, write, order and compare numbers without a calculator
- recognise negative numbers
- recall multiplication facts

Estimate answers

- use rounding to estimate answers
- estimate to check answers are reasonable
- with or without a calculator

Find parts

- common fractions (halves, thirds, quarters, fifths, tenths) and mixed numbers
- read, write, order and compare fractions and mixed numbers
- recognise equivalencies between fractions, percentages and decimals

Decimal calculations

- read, write, order and compare up to three places without a calculator
- use the four rules up to two places
- rounding decimals up to three places to a whole number or two decimal places

Percentage calculations

- read, write, order and compare whole number percentages
- find whole number percentage parts of quantities and measurements

Learning outcome

The learner will:

LO2 Be able to use common measures in problem solving

Assessment criteria

The learner can:

AC2.1 use **the four rules** for calculating **measures** within the same system with and without a calculator
(MSS/L1.1-MSS/L1.7)

AC2.2 use dimensions to **measure** regular shapes without a calculator
(MSS/L1.8-MSS/L1.10)

AC2.3 **solve problems** using mathematical properties of 2D shapes
(MSS2/L1.1-MSS2/L1.2)

AC2.4 use units of measure to **define quantities**
(MSS/L1.1-MSS/L1.10)

Range

The four rules

- add
- subtract
- multiply
- divide

Measures

- money expressed in pounds in pence
- time in common date formats and 12 hour and 24 hour clock
- length, including distance
- weight
- capacity
- temperature
- convert units of measure within the same system

Measure

- work out perimeter
- work out area of rectangles
- work out volume

Solve problems

- tessellation
- symmetry
- draw 2D shapes in different orientations using grids

Define quantities

- money
- time
- length
- weight
- capacity
- temperature

Learning outcome

The learner will:

LO3 Be able to use data and statistical measure in problem solving

Assessment criteria

The learner can:

AC3.1 interpret information from **different sources**
(HD1/L1.1-HD1/L1.2

AC3.2 find the mean for sets of data
(HD1/L1.3)

AC3.3 find the range for sets of data
(HD1/L1.4)

AC3.4 express the likelihood of independent events using a **probability scale**
(HD2/L1.1-HD2/L1.2)

AC3.5 represent discrete data in **different forms**
(HD1/L1.2)

Range

Different sources

- tables
- charts
- diagrams
- line graphs

Probability scale

- using fractions
- using decimals
- using percentages

Different forms

- tables
- charts
- diagrams

Unit 202 Principles of using mathematical techniques

UAN:	J/504/5525
Level:	2
Credit	13
GLH:	98
Relationship to other standards:	This unit is linked to the National Standards for Adult Numeracy and the Adult Numeracy Core Curriculum.
Aim:	This unit has been devised to assess the candidates' knowledge on a range of techniques that are used in mathematical problems. This unit covers the use of numbers of any value, the use of common measures in different systems, and the use of continuous and discrete data and statistical measure.

Learning outcome

The learner will:

LO1 Be able to use numbers of any value in problem solving

Assessment criteria

The learner can:

AC1.1 use **the four rules** in **whole number calculations** using calculator and non-calculator methods (N1/L2.1-N1/L2.4, N2/L2.10)

AC1.2 **calculate parts** of whole number amounts and quantities using calculator and non-calculator methods (N2/L2.1.1-N2/L2.4, N2/L2.10)

AC1.3 use **the four rules** in **decimal calculations** using calculator and non-calculator methods (N2/L2.5-N1/L2.6, N2/L2.10)

AC1.4 use **the four rules** in **percentage calculations** using calculator and non-calculator methods (N2/L2.7, N2/L2.9- N2/L2.10)

Range

The four rules

- add

- subtract
- multiply
- divide

Whole number calculations

- positive and negative whole numbers of any value
- ratio expressed in the form a:b:c
- direct proportion to any factor
- evaluate expressions and make substitutions in given formulae
- read, write, order and compare whole numbers of any value without calculator

Calculate parts

- fractions and mixed numbers
- order and compare fractions and mixed numbers of amounts and quantities
- add and subtract amounts and quantities
- use equivalencies between fractions, percentages and decimals
- evaluate one number as a fraction of another

Decimal calculations

- up to three places
- order, approximate and compare decimals when solving problems without a calculator

Percentage calculations

- order and compare percentages of any value
- calculate percentage parts of quantities and measurements
- evaluate one number as a percentage of another
- calculate results of percentage increases and decreases

Learning outcome

The learner will:

LO2 Be able to use common measures in different systems in problem solving

Assessment criteria

The learner can:

AC2.1 use **the four rules** for calculating **measures** between different systems with and without a calculator
(MSS1/L2.1-MSS1/L2.6)

AC2.2 calculate perimeters, areas and volumes of **shapes** from formulae
(MSS1/L2.7-MSS1/L2.9)

AC2.3 **solve problems** using 2D shapes with and without a calculator
(MSS1/L2.1-MSS1/L2.2)

AC2.4 work out dimensions from scale drawings
(MSS1/L2.10)

AC2.5 select units of measure to **define quantities**
(MSS1/L2.1-MSS1/L2.10)

Range

The four rules

- add
- subtract
- multiply

- divide

Measures

- money in different currencies
- time in different formats
- length, including distance, in imperial and metric units
- weight in imperial and metric units
- capacity in imperial and metric units
- temperature in Celsius and Fahrenheit
- convert units of measure between systems using scales, tables and conversion factor

Shapes

- perimeters and areas of regular shapes
- areas of composite shapes
- volumes of regular shapes

Solve problems

- recognise and use common 2D representation of 3D objects
- involving 2D shapes and parallel lines

Define quantities

- money
- time
- length
- weight
- capacity
- temperature

Learning outcome

The learner will:

LO3 Be able to use continuous and discrete data and statistical measure in problem solving

Assessment criteria

The learner can:

AC3.1 interpret discrete and continuous data from **different sources**
(HD1/L2.1)
AC3.2 use **averages** for comparison of sets of data
(HD1/L2.3)
AC3.3 describe the spread between sets of data
(HD1/L2.4)
AC3.4 express the likelihood of **combined events in different forms**
(HD2/L2.1)
AC3.5 represent **discrete and continuous data in different forms**
(HD1/L2.2)

Range

Different sources

- complex tables
- composite charts

- scale diagrams
- line graphs with more than one line

Averages

- mean
- mode
- media

Combined events in different forms

- tables
- tree diagrams

Discrete and continuous data in different forms

- complex tables
- composite charts
- scale diagrams
- line graphs with more than one line

Appendix 1 Relationships to other qualifications

Links to other qualifications

The standards for GCSE mathematics and Functional skills mathematics have been provided as guidance and suggest areas of commonality between the qualifications. It does not imply that candidates completing units in one qualification have automatically covered all of the content of another.

Centres are responsible for checking the different requirements of all qualifications they are delivering and ensuring that candidates meet requirements of all units/qualifications.

These qualifications have connections to the:

- Level 1 Mathematics Skills (3847)
- Level 2 Mathematics Skills (3847)

Literacy, language, numeracy and ICT skills development
These qualifications can develop skills that can be used in the following qualifications:

- Functional Skills
  https://www.cityandguilds.com/what-we-offer/centres/skills-for-work-and-life/functional-skills

Mathematics at L1

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
AO1 Recall and use their knowledge of the prescribed content.	**Number and algebra** • add, subtract, multiply and divide any number; • order rational numbers; • use the concepts and vocabulary of factor (divisor), multiple, common factor, highest common factor, least common multiple, prime number and prime factor decomposition; • use the terms square, positive and negative square root, cube and cube root; • use index notation for squares, cubes and powers of ten; • use index laws for multiplication and division of integer • understand equivalent fractions, simplifying a fraction by cancelling all common factors; • add and subtract fractions; • use decimal notation and recognise that each terminating decimal is a fraction; • recognise that recurring decimals are exact fractions, and that some exact fractions are recurring decimals; • understand that 'percentage' means 'number of parts per 100' and use this to compare proportions; • use percentages	**Representing** 1. Understand practical problems in familiar and unfamiliar contexts and situations, some of which are non-routine. 2. Identify and obtain necessary information to tackle the problem. 3. Select mathematics in an organised way to find **solutions.**	a) Understand and use whole numbers and understand negative numbers in practical contexts; b) Add, subtract, multiply and divide whole numbers using a range of strategies; c) Understand and use equivalences between common fractions, decimals and percentages; d) Add and subtract decimals up to two decimal places; e) Solve simple problems involving ratio, where one number is a multiple of the other; f) Use simple formulae expressed in words for one- or two-step operations;	**Level 1** **Be able to use numbers in problem solving** **The four rules** add subtract multiply divide **Whole number calculations** whole numbers up to seven digits, including the use of zero as a place holder recognise numerical relationships simple ratio expressed in words direct proportion in two parts

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• interpret fractions, decimals and percentages as operators; • use ratio notation, including reduction to its simplest form and its various links to fraction notation; • understand and use number operations and the relationships between them, including inverse operations and hierarchy of operations; • divide a quantity in a given ratio; • approximate to specified or appropriate degrees of accuracy including a given power of ten, number of decimal places and significant figures; • use calculators effectively and efficiently, including statistical; • distinguish the different roles played by letter symbols in algebra, using the correct notation; • distinguish in meaning between the words equation, formula and expression; • manipulate algebraic expressions by collecting like terms, by multiplying a single term over a bracket, and by taking out common factors; • set up and solve simple equations; • derive a formula, substitute numbers into a formula and change the subject of a formula; • solve linear inequalities in one variable, and represent the solution set on a number line; • use systematic trial and improvement to find approximate solutions of equations where		g) Solve problems requiring calculation with common measures, including money, time, length, weight, capacity and temperature; h) Convert units of measure in the same system; i) Work out areas and perimeters in practical situations; j) Construct geometric diagrams, models and shapes; k) Extract and interpret information from tables, diagrams, charts and graphs; l) Collect and record discrete data and organise and represent information in different ways;	read, write order and compare numbers without a calculator recognise negative numbers recall multiplication facts **Estimate answers** use rounding to estimate answers estimate to check answers are reasonable with or without a calculator **Find parts** common fractions (halves, thirds, quarters, fifths, tenths) and mixed numbers read, write, order and compare fractions and mixed numbers recognise equivalencies between fractions, percentages and decimals

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	there is no simple analytical method of solving them; • generate terms of a sequence using term-to-term and position-to-term definitions of the sequence; • use linear expressions to describe the nth term of an arithmetic sequence; • use the conventions for coordinates in the plane and plot points in all four quadrants, including using geometric information; • recognise and plot equations that correspond to straight-line graphs in the coordinate plane, including finding gradients; • construct linear functions from real-life problems and plot their corresponding graphs; • discuss, plot and interpret graphs (which may be non-linear) modelling real situations; • generate points and plot graphs of simple quadratic functions, and use these to find approximate solutions. **Geometry and measures** • recall and use properties of angles at a point, angles at a point on a straight line (including right angles), perpendicular lines and opposite angles at a vertex;			**Decimal calculations** read, write, order and compare up to three places without a calculator use the four rules up to two places rounding decimals up to three places to a whole number or two decimal places **Percentage calculations** read, write, order and compare whole number percentages find whole number percentage parts of quantities and measurements **be able to use common measures in problem solving**

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• understand and use the angle properties of parallel and intersecting lines, triangles and quadrilaterals; • calculate and use the sums of the interior and exterior angles of polygons; • recall the properties and definitions of special types of quadrilateral, including square, rectangle, parallelogram, trapezium, kite and rhombus; • recognise reflection and rotation symmetry of 2D shapes; • understand congruence and similarity; • use Pythagoras' theorem in 2D and 3D; • distinguish between centre, radius, chord, diameter, circumference, tangent, arc, sector and segment; • use 2D representations of 3D shapes; • describe and transform 2D shapes using single or combined rotations, reflections, translations, or enlargements by a positive scale factor and distinguish properties that are preserved under particular transformations; • use and interpret maps and scale drawings; • understand the effect of enlargement for perimeter, area and volume of shapes and solids; • interpret scales on a range of measuring instruments and recognise the inaccuracy of measurements;			**The four rules** add subtract multiply divide **measures** money expressed in pounds in pence time in common date formats and 12 hour and 24 hour clock length, including distance weight capacity temperature convert units of measure within the same system **Measure** work out perimeter work out area of rectangles work out volume **Solve problems** tessellation

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• convert measurements from one unit to another; • make sensible estimates of a range of measures; • understand and use bearings; • understand and use compound measures; • measure and draw lines and angles; • draw triangles and other 2D shapes using a ruler and protractor; • use straight edge and a pair of compasses to do constructions; • construct loci; • calculate perimeters and areas of shapes made from triangles and rectangles; • find circumferences and areas of circles; • calculate volumes of right prisms and of shapes made from cubes and cuboids; **Statistics and probability** • understand and use statistical problem solving process/handling data cycle; • identify possible sources of bias; • design an experiment or survey; • design data-collection sheets, distinguishing between different types of data; • extract data from printed tables and lists;			symmetry draw 2D shapes in different orientations using grids **Define quantities** money time length weight capacity temperature **be able to use data and statistical measure in problem solving** **Different sources** tables charts diagrams line graphs **Probability scale** using fractions using decimals using percentages

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• design and use two-way tables for discrete and grouped data; • produce charts and diagrams for various data types; • calculate median, mean, range, mode and modal class; • interpret a wide range of graphs and diagrams and draw conclusions; • look at data to find patterns and exceptions; • recognise correlation and draw and/or use lines of best fit by eye, understanding what these represent; • compare distributions and make inferences; • compare distributions and make inferences; • understand and use the vocabulary of probability and the probability scale; • understand and use estimates or measures of probability from theoretical models (including equally likely outcomes), or from relative frequency; • list all outcomes for single events, and for two successive events, in a systematic way and derive related probabilities; • identify different mutually exclusive outcomes and know that the sum of the probabilities of all these outcomes is 1; • compare experimental data and theoretical probabilities;			**Different forms** tables charts diagrams

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• understand that if they repeat an experiment, they may – and usually will – get different outcomes, and that increasing sample size generally leads to better estimates of probability and population characteristics.			

Mathematics at L2

GCSE Mathematics			Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes		**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
AO1	Recall and use their knowledge of the prescribed content.	**Number and algebra** • add, subtract, multiply and divide any number; • order rational numbers; • use the concepts and vocabulary of factor (divisor), multiple, common factor, highest common factor, least common multiple, prime number and prime factor decomposition; • use the terms square, positive and negative square root, cube and cube root; • use index notation for squares, cubes and powers of ten; • use index laws for multiplication and division of integer, fractional and negative powers; • interpret, order and calculate with numbers written in standard index form; • understand equivalent fractions, simplifying a fraction by cancelling all common factors; • add and subtract fractions; • use decimal notation and recognise that each terminating decimal is a fraction; • recognise that recurring decimals are exact fractions, and that some exact fractions are recurring decimals;	**Representing** 1. Understand routine and non-routine problems in familiar and unfamiliar contexts and situations. 2. Identify the situation or problems and identify the mathematical methods needed to solve them. 3. Choose from a range of mathematics to find solutions.	a) Understand and use positive and negative numbers of any size in practical contexts; b) Carry out calculations with numbers of any size in practical contexts, to a given number of decimal places; c) Understand, use and calculate ratio and proportion, including problems involving scale; d) Understand and use equivalences between fractions, decimals and percentages; e) Understand and use simple formulae and equations involving one- or two-step operations; f) Recognise and use 2D representations of 3D objects;	**Level 2 units** **Be able to use numbers of any value in problem solving** **The four rules** add subtract multiply divide **Whole number calculations** positive and negative whole numbers of any value ratio expressed in the form a:b:c direct proportion to any factor evaluate expressions and make substitutions in given formulae read, write, order and compare whole numbers f any value without a calculator **Calculate parts** fractions and mixed numbers order and compare fractions and mixed numbers of amounts and quantities add and subtract amounts and quantities use equivalencies between fractions, percentages and decimals evaluate one number as a fraction of another

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• understand that 'percentage' means 'number of parts per 100' and use this to compare proportions; • use percentage, repeated proportional change; • understand and use direct and indirect proportion; • interpret fractions, decimals and percentages as operators; • use ratio notation, including reduction to its simplest form and its various links to fraction notation; • understand and use number operations and the relationships between them, including inverse operations and hierarchy of operations; • use surds and π in exact calculations; • calculate upper and lower bounds; • divide a quantity in a given ratio; • approximate to specified or appropriate degrees of accuracy including a given power of ten, number of decimal places and significant figures; • use calculators effectively and efficiently, including statistical and trigonometrical functions; • distinguish the different roles played by letter symbols in algebra, using the correct notation; • distinguish in meaning between the words equation, formula, identity and expression;		g) Find area, perimeter and volume of common shapes; h) Use, convert and calculate using metric and, where appropriate, imperial measures; i) Collect and represent discrete and continuous data, using ICT where appropriate; j) Use and interpret statistical measures, tables and diagrams, for discrete and continuous data, using ICT where appropriate; k) Use statistical methods to investigate situations; l) Use probability to assess the likelihood of an outcome.	**Decimal calculations** up to three places order, approximate and compare decimals when solving problems without a calculator **Percentage calculations** order and compare percentages of any value calculate percentage parts of quantities and measurements evaluate one number as a percentage of another calculate results of percentage increases and decreases **be able to use common measures in different systems in problem solving** **The four rules** add subtract multiply divide **measures** money in different currencies time in different formats length, including distance, in imperial and metric units

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• manipulate algebraic expressions by collecting like terms, by multiplying a single term over a bracket, and by taking out common factors, multiplying two linear expressions, factorising quadratic expressions including the difference of two squares, and simplifying rational expressions; • set up and solve simple equations including simultaneous equations in two unknowns; • solve quadratic equations; • derive a formula, substitute numbers into a formula and change the subject of a formula; • solve linear inequalities in one or two variables, and represent the solution set on a number line or suitable diagram; • use systematic trial and improvement to find approximate solutions of equations where there is no simple analytical method of solving them; • generate terms of a sequence using term-to-term and position-to-term definitions of the sequence; • use linear expressions to describe the nth term of an arithmetic sequence; • use the conventions for coordinates in the plane and plot points in all four quadrants, including using geometric information; • recognise and plot equations that correspond to straight-line graphs in the coordinate plane, including finding gradients;			weight in imperial and metric units capacity in imperial and metric units temperature in Celsius and Fahrenheit convert units of measure between systems using scales, tables and conversion factors **Shapes** perimeters and areas of regular shapes areas of composite shapes volumes of regular shapes **Solve problems** recognise and use common 2D representation of 3D objects involving 2D shapes and parallel lines **Define quantities** money time length weight capacity temperature **be able to use continuous and discrete data and statistical measure in problem solving** **Different sources** complex tables composite charts

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• understand that the form y = mx + c represents a straight line and that m is the gradient of the line and c is the value of the y-intercept; • understand the gradients of parallel lines; • find the intersection points of the graphs of a linear and quadratic function, knowing that these are the approximate solutions of the corresponding simultaneous equations representing the linear and quadratic functions; • draw, sketch, recognise graphs of simple cubic functions, the reciprocal function y = x1 with x0, the function y = k≠ x for integer values of x and simple positive values of k, the trigonometric functions y = sin x and y = cos x; • construct the graphs of simple loci; • construct linear, quadratic and other functions from real-life problems and plot their corresponding graphs; • discuss, plot and interpret graphs (which may be non-linear) modelling real situations; • generate points and plot graphs of simple quadratic functions, and use these to find approximate solutions. **Geometry and measures**			scale diagrams line graphs with more than one line **Averages** mean mode median **Different forms** tables tree diagrams **Different forms** complex tables composite charts scale diagrams line graphs with more than one line

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• recall and use properties of angles at a point, angles at a point on a straight line (including right angles), perpendicular lines and opposite angles at a vertex; • understand and use the angle properties of parallel and intersecting lines, triangles and quadrilaterals; • calculate and use the sums of the interior and exterior angles of polygons; • recall the properties and definitions of special types of quadrilateral, including square, rectangle, parallelogram, trapezium, kite and rhombus; • recognise reflection and rotation symmetry of 2D shapes; • understand congruence and similarity; • use Pythagoras' theorem in 2D and 3D; • use the trigonometrical ratios and the sine and cosine rules to solve 2D and 3D problems; • distinguish between centre, radius, chord, diameter, circumference, tangent, arc, sector and segment; • understand and construct geometrical proofs using circle theorems; • use 2D representations of 3D shapes; • describe and transform 2D shapes using single or combined rotations, reflections, translations, or enlargements by a positive scale factor then use positive fractional and negative scale factors and distinguish			

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	properties that are preserved under particular transformations; • use and interpret maps and scale drawings; • understand and use the effect of enlargement for perimeter, area and volume of shapes and solids; • interpret scales on a range of measuring instruments and recognise the inaccuracy of measurements; • convert measurements from one unit to another; • make sensible estimates of a range of measures; • understand and use bearings; • understand and use compound measures; • measure and draw lines and angles; • draw triangles and other 2D shapes using a ruler and protractor; • use straight edge and a pair of compasses to do constructions; • construct loci; • calculate perimeters and areas of shapes made from triangles and rectangles and other shapes; • calculate the area of a triangle using ½ ab sin C; • find circumferences and areas of circles; • calculate volumes of right prisms and of shapes made from cubes and cuboids;			

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	• solve mensuration problems involving more complex shapes and solids. **Statistics and probability** • understand and use statistical problem solving process/handling data cycle; • identify possible sources of bias; • design an experiment or survey; • design data-collection sheets, distinguishing between different types of data; • extract data from printed tables and lists; • design and use two-way tables for discrete and grouped data; • produce charts and diagrams for various data types; • calculate median, mean, range, quartiles and inter-quartile range, mode and modal class; • interpret a wide range of graphs and diagrams and draw conclusions; • look at data to find patterns and exceptions; • recognise correlation and draw and/or use lines of best fit by eye, understanding what these represent; • compare distributions and make inferences; • compare distributions and make inferences; • understand and use the vocabulary of probability and the probability scale; • understand and use estimates or measures of probability from theoretical models			

GCSE Mathematics		Functional Skills		Principles of Using Mathematical Techniques
Assessment Outcomes	**Skills**	**Skill standards**	**Coverage and range**	**Outcomes**
	(including equally likely outcomes), or from relative frequency; • list all outcomes for single events, and for two successive events, in a systematic way and derive related probabilities; • identify different mutually exclusive outcomes and know that the sum of the probabilities of all these outcomes is 1; • know when to add or multiply two probabilities: if A and B are mutually exclusive, then the probability of A or B occurring is P(A) + P(B), whereas if A and B are independent events, the probability of A and B occurring is P(A) × P(B); • use tree diagrams to represent outcomes of compound events, recognising when events are independent; • compare experimental data and theoretical probabilities; • understand that if they repeat an experiment, they may – and usually will – get different outcomes, and that increasing sample size generally leads to better estimates of probability and population characteristics.			

Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centre document library** on **www.cityandguilds.com** or click on the links below:

Centre Handbook: Quality Assurance Standards

This document is for all approved centres and provides guidance to support their delivery of our qualifications. It includes information on:

- centre quality assurance criteria and monitoring activities
- administration and assessment systems
- centre-facing support teams at City & Guilds/ILM
- centre quality assurance roles and responsibilities.

The Centre Handbook should be used to ensure compliance with the terms and conditions of the centre contract.

Centre Assessment: Quality Assurance Standards

This document sets out the minimum common quality assurance requirements for our regulated and non-regulated qualifications that feature centre-assessed components. Specific guidance will also be included in relevant qualification handbooks and/or assessment documentation.

It incorporates our expectations for centre internal quality assurance and the external quality assurance methods we use to ensure that assessment standards are met and upheld. It also details the range of sanctions that may be put in place when centres do not comply with our requirements or actions that will be taken to align centre marking/assessment to required standards. Additionally, it provides detailed guidance on the secure and valid administration of centre assessments.

Access arrangements: When and how applications need to be made to City & Guilds provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **Centre document library** also contains useful information on such things as:

- conducting examinations
- registering learners
- appeals and malpractice.

Useful contacts

Please visit the **Contact us** section of the City & Guilds website.

City & Guilds

For over 140 years, we have worked with people, organisations and economies to help them identify and develop the skills they need to thrive. We understand the life-changing link between skills development, social mobility, prosperity and success. Everything we do is focused on developing and delivering high-quality training, qualifications, assessments and credentials that lead to jobs and meet the changing needs of industry.

We partner with our customers to deliver work-based learning programmes that build competency to support better prospects for people, organisations and wider society. We create flexible learning pathways that support lifelong employability because we believe that people deserve the opportunity to (re)train and (re)learn again and again – gaining new skills at every stage of life, regardless of where they start.

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This Qualification Handbook however may contain references to historic information, such as former organisations, obsolete frameworks, codes or standards, or retired units and qualifications. This information is included for reference purposes only.

Published by City & Guilds, a registered charity established to promote education and training.

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cityandguildsgroup.com