Qualification specification

NCFE Level 1 Certificate in Essential Maths in Everyday Life
QN: 610/0648/8

Qualification summary

Qualification title	**NCFE Level 1 Certificate in Essential Maths in Everyday Life**		
Ofqual qualification number (QN)	610/0648/8	**Aim reference**	61006488
Guided learning hours (GLH)	190	**Total qualification time (TQT)**	190
Minimum age	Pre-16		
Qualification purpose	This qualification is part of a suite designed to provide learners with essential knowledge and skills in maths. Learners will develop their skills in using numbers, measurement, shape and space, handling data and solving mathematical problems. This qualification has been designed to support learners in their everyday life or support them to progress on to a Functional Skills qualification in mathematics or a GCSE in mathematics.		
Grading	Achieved/not yet achieved		
Assessment method	Internally assessed and externally quality assured portfolio of evidence		

Contents

Summary of changes

This document summarises the changes to this qualification specification.

This document summarises the changes to this qualification specification since the last version (version 1.1 October 2022). Please check the NCFE website for the most recent version.

Version	Publication date	Summary of amendments
v1.0	August 2022	First publication
v1.1	October 2022	Clarification added to the delivery and assessment guidance section on page 33 for unit 10 assessment, criterion 1.4 to confirm the frequency of evidencing.
v1.2	June 2024	Removed reference to criteria that is not required

Section 1: introduction

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 maths
- offer breadth and depth of study, incorporating a key core of knowledge
- provide opportunities to acquire knowledge and practical skills in maths
- support progression to a level 1 Functional Skills qualification in mathematics or GCSE in mathematics

The objectives of this qualification are to enable learners to:

- develop their skills in using whole numbers, fractions and decimals
- develop their skills in common measurements of time, money, weight, capacity, length, shape, and space
- develop their skills in handling data and information
- develop their skills in solving mathematical problems

Support handbook

This qualification specification must be used alongside the mandatory support handbook, which can be found on the NCFE website. This 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 for any learners who have not achieved a GCSE or Functional Skills qualification in mathematics.

The qualification will support learners with an identified skills gap in maths and has been designed using the Functional Skills scope of study to develop skills for everyday life and support progression to Functional Skills. The qualification can also be used to progress to a GCSE in mathematics.

The qualification could also be used by pre-16 learners who are not following or are not yet ready to follow a traditional GCSE route in education for maths.

Registration is at the discretion of the centre, in accordance with equality legislation, and should be made on the Portal.

There are no specific prior skills/knowledge a learner must have for this qualification, however, learners may find it helpful if they have already achieved the NCFE Entry Level 3 Certificate in Essential Maths in Everyday Life (610/0655/5).

Centres are responsible for ensuring that all learners are capable of achieving the learning outcomes (LOs) 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/a similar title, as duplication of learning may affect funding eligibility.

Achieving this qualification

To be awarded this qualification, learners are required to successfully achieve 10 mandatory units from group A and 1 optional unit from group B.

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 LOs of the units as detailed in this qualification specification. A partial certificate may be requested for learners who do not achieve their full qualification but have achieved at least one whole unit.

Progression

Learners who achieve this qualification could progress to the following:

- NCFE Level 1 Functional Skills Qualification in Mathematics (603/5055/6)
- NCFE Level 2 Certificate in Essential Maths in Everyday Life (610/0650/6)
- apprenticeships
- vocational qualifications
- GCSE in mathematics

Resource requirements

There are no mandatory resource requirements for this qualification, but centres must ensure learners have access to suitable resources to enable them to cover all the appropriate LOs.

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.

Unless stated otherwise in this qualification specification, all learners taking this qualification must be assessed in English and all assessment evidence presented for external quality assurance must be in English.

The assessment consists of one 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

We are in the process of developing free workbooks to accompany this qualification to support centres with their delivery and assessment, which include summative assessments that can be used to provide evidence of competence in each unit. These will be published on the qualification page on the NCFE website. These tasks are not mandatory. You can contextualise the tasks to suit the needs of your learners to help them build up their portfolio of evidence. The tasks have been designed to cover LOs for all units and provide opportunities for stretch and challenge. For further information about contextualising the tasks, please contact the NCFE provider development team.

Each learner must create a portfolio of evidence generated from appropriate assessment tasks, which demonstrates achievement of all the LOs associated with each unit. 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 may choose to 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, LOs, 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 the NCFE 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 the standards required of this qualification.

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 (LOs) 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 terms used in the unit content are applied to this qualification. This document can be found in section 3.

The qualification has been designed to map to the subject content for Functional Skills in mathematics to aid progression. We have provided a mapping document in appendix B that outlines the Functional Skills subject content statement that each assessment criteria maps to.

Where spoken responses are required, sign language can be used to meet learners' needs where appropriate. If learners provide signed responses, the tutor should record them on the appropriate documents. Tasks that can be read out to the learner can be delivered via sign language as appropriate to their needs.

Online delivery and assessment could be offered if technology is in place for learners and centres.

If centres opt for an online approach to delivery and assessment, tutors must ensure that they can hear the learners when they read out and can view their written answers, taking a screenshot or emailing the learners' work when necessary.

Integrating the LOs from different units is good practice; tutors should familiarise themselves with the different LOs from different units that can be achieved during a single assessment.

Unit 01 Working with whole numbers up to 1 million (R/650/1813)

Unit summary			
This unit aims to develop an understanding of mathematical skills and calculations associated with working with whole numbers. Learners will also develop appropriate strategies for the use of both written and calculator methods to find solutions to calculations. The unit provides a useful basis for further mathematical study at this level.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**30 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to read, write, order, and compare whole numbers up to 1 million	1.1 Read and write whole numbers up to 1 million in both figures and words
	1.2 Order and compare whole numbers up to 1 million in either ascending or descending order
2. Be able to use positive and negative whole numbers	2.1 Use **positive whole numbers** in calculations to find solutions to straightforward problems involving multiplication and division
	2.2 Use positive and negative **whole numbers** in calculations to find solutions to straightforward problems using addition and subtraction
3. Be able to calculate using multiplication, division, and square numbers	3.1 Use multiplication facts up to 12 x 12
	3.2 Multiply and divide whole numbers by 10, 100 and 1000
	3.3 Make connections with division facts of whole numbers
	3.4 Use the notation n^2 to calculate the squares of one and two-digit numbers
4. Be able to follow the order of precedence of operators and work with simple formulae	4.1 Follow the order of precedence of operators
	4.2 Use simple formulae expressed in words for one-step or two-step operations
5. Be able to work out simple ratio and direct proportion using whole numbers	5.1 Work out simple ratio as the number of parts from a whole number
	5.2 Increase and decrease whole numbers using direct proportion

Range
2. Be able to use positive and negative numbers
2.1 Positive whole numbers must include whole numbers up to 1 million and use both written methods and a calculator. **2.2** Must include **whole numbers** from -1 million to +1 million and use both written methods and a calculator.

Delivery and assessment guidance
The focus of the unit is to enable the learner to develop skills for working with positive and negative whole numbers of up to 1 million in a range of contexts. Learners must be able to carry out calculations using whole numbers through written methods and with the use of a calculator.

Delivery and assessment guidance

Learners should be encouraged to show their workings for both written methods and when using a calculator, as this will also help to identify where errors may have occurred if final answers are incorrect.

When they have completed their written calculations, learners should be encouraged to check for accuracy using a calculator or inverse calculations.

Tutors could incorporate opportunities for learners to complete calculations by written methods or by using a calculator throughout the assessment of the unit.

Alternatively, tutors could develop separate summative assessment papers that require learners to demonstrate completion of calculations by written methods or by using a calculator.

Learners must present accurate solutions for all calculations and should show all of their calculations, even when completed on a calculator.

Assessment criteria: 1.1–2.2

Tutors must provide learners with scenarios of practical contexts where whole numbers may be naturally encountered, for example:

- course enrolment numbers
- sports event attendances
- voter numbers
- temperature
- money

When they have completed their written methods learners could check their calculations using a calculator.

Learners could be provided with a multiple-choice or short-answer question assessment that requires them to complete a number of calculations using a calculator.

Learners must demonstrate achievement by providing at least:

- 2 pieces of evidence covering reading and writing whole numbers
- 2 pieces of evidence of ordering and comparing numbers
- 2 pieces of evidence for addition and subtraction for both positive and negative numbers
- 2 pieces of evidence for multiplication and division of positive numbers

Assessment criteria: 3.1–3.4

For example, learners could be given a partially completed times table grid and division grid to complete, in order to demonstrate their knowledge of multiples of 2 to 12, including knowing square numbers and the use of n^2 for one and two-digit numbers.

This could also be evidenced from work for AC4.1 and 4.2 if n^2 is included in a formula.

Delivery and assessment guidance

When they have completed their written methods learners could check their calculations using a calculator.

Learners must demonstrate on at least 2 occasions that they can achieve AC3.3 and 3.4 showing their understanding of the use of squares of one and two-digit whole numbers.

Assessment criteria: 4.1–4.2

Tutors could provide learners with worksheets with one-step and two-step problems to complete, or multiple-choice tasks.

For AC4.1, learners must demonstrate that they are able to achieve the assessment criterion on at least 2 occasions.

For AC4.2, learners must demonstrate that they are able to achieve the assessment criterion on at least 2 occasions, consisting of one occasion for one-step operations, and one occasion for two-step operations.

Assessment criteria: 5.1–5.2

Tutors could provide learners with a range of everyday scenarios that require simple proportion to be calculated, for example:

- diluting juice
- scaling up or down cooking recipes
- thinning paint

Learners must be able to identify whether or not an answer appears reasonable or practical.

For AC5.1, learners must demonstrate on at least 2 occasions that they can achieve the assessment criterion.

For AC5.2, learners must demonstrate 2 occasions that they are able to achieve the assessment criterion for increasing proportions and 2 for decreasing proportions.

Evidence for this unit could include:

- learner evidence generated during other programmes of study or work activities, for example:
  - stock checks
  - shift rotas
  - sales figures
  - payslips
  - sports event scores
  - tasks in the form of one-step problem solving or multiple choice

Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 02 Working with fractions (D/650/1826)

Unit summary			
This unit aims to develop skills and build confidence in reading, writing, ordering, and comparing common fractions and mixed numbers, as well as finding fractional values of whole numbers.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**10 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to read, write, order, and compare common fractions and mixed numbers	1.1 Read and write common fractions and mixed numbers
	1.2 Order and compare common fractions and mixed numbers
2. Be able to find fractions of whole number quantities or measurements	2.1 Find fractional values of whole numbers or measurements
3. Be able to estimate answers to calculations using common fractions	3.1 Demonstrate estimating answers to calculations using common fractions

Delivery and assessment guidance

The focus of the unit is to develop strategies for working with fractions, including common fractions and mixed numbers.

Learners must be able to carry out calculations using common fractions and mixed numbers using written methods.

Learners should be encouraged to show their workings to demonstrate their understanding of the underpinning knowledge and skills required when working with fractions and mixed numbers.

Assessment criteria: 1.1–1.2

Learners must be able to compare fractions and order them in terms of size. Tutors must provide fractions with a range of denominators for learners to simplify.

Learners must demonstrate on at least 3 occasions achievement of using different denominators and numerators.

Assessment criterion: 2.1

Learners must be able to find fractional values of whole numbers (for example $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{5}$) without the use of a calculator to avoid any advantage being provided by a scientific calculator. The learner can use a calculator to check final calculations for accuracy.

Delivery and assessment guidance

Learners must demonstrate on at least 3 occasions achievement of using different denominators and numerators.
 	
Assessment criterion: 3.1
 	
Tutors must provide scenarios that allow learners to demonstrate their knowledge and skills in working with fractions. The scenarios must include everyday familiar contexts that use numbers, sums of money, quantities and measurements.
 	
Learners must demonstrate on at least 2 occasions achievement of using fractions for estimation.
 	
Evidence for this unit could include:
 	
• learner evidence generated during other programmes of study or work activities, for example:
  ○ stock checks
  ○ shift rotas
  ○ sales figures
  ○ payslips
  ○ sports event scores
• multiple choice and/or short answer question paper
 	
Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 03 Working with decimals (H/650/1828)

Unit summary			
This unit aims to develop skills and build confidence in reading, writing, ordering, and comparing decimals as well as completing calculations involving decimals. It will enable learners to calculate increases and decreases using decimals.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**10 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to read, write, order, and compare decimals of up to 3 decimal places	1.1 Read and write decimals up to 3 decimal places
	1.2 Order and compare decimals up to 3 decimal places in either ascending or descending order
2. Be able to complete calculations using decimals of up to 2 decimal places	2.1 Add and subtract decimal numbers up to 2 decimal places
	2.2 Multiply and divide decimal numbers up to 2 decimal places
	2.3 Multiply and divide decimal numbers by 10, 100 and 1000
	2.4 Approximate by rounding to a whole number or to 1 or 2 decimal places
	2.5 Estimate answers to calculations using decimals

Delivery and assessment guidance

The focus of the unit is to enable the learner to develop strategies for working with decimals in a range of contexts.

Learners must be able to carry out calculations with decimals using written methods in the first instance.

Learners should be encouraged to show their workings to demonstrate their understanding of the underpinning knowledge and skills required when working with decimals.

To encourage development of skills using mental methods, learners could complete calculations and provide verbal responses to tutors.

Whilst developing their skills and knowledge of working with decimals, learners could use a calculator to check their written calculations.

Assessment criteria: 1.1–1.2

Tutors must provide learners with a range of decimal numbers to work with.

Learners must demonstrate their ability to work with decimal numbers by correctly ordering and comparing decimals by size in both ascending and descending order.

Learners must demonstrate on at least 3 occasions that they can use decimals including both 2 and 3 decimal places (dp).

Delivery and assessment guidance

Assessment criteria: 2.1–2.5

Tutors must provide learners with a range of calculations using decimal numbers.

Learners' calculations must be accurate and should be completed using a written method and then can be checked with either inverse calculations or by using a calculator.

For AC2.4, learners could use their solutions to calculations completed in AC2.1–2.3 and round them to whole numbers, and to 1 dp and 2 dp as evidence.

Learners must demonstrate calculations with both 1 dp and 2 dp numbers involving the 4 types of operations:

- addition
- subtraction
- multiplication
- division

Example of coverage required for addition:

- 3.2 + 3.4 (1 dp + 1 dp)
- 3.25 + 3.4 (2 dp + 1 dp)
- 3.25 + 3.48 (2 dp + 2 dp)

Learners must demonstrate on at least 3 occasions that they can use decimals including both 1 dp and 2 dp.

Evidence for this unit could include:

- learner evidence generated during other programmes of study or work activities, for example:
  - stock checks
  - shift rotas
  - sales figures
  - payslips
  - sports event scores
- multiple choice and/or short answer question paper

Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 04 Working with percentages (M/650/1830)

Unit summary			
This unit aims to develop skills and build confidence in reading, writing, ordering, and comparing percentages as well as completing calculations involving percentage increases and decreases. It will enable learners to calculate increases and decreases using percentages.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**10 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to read, write, order, and compare percentages in whole numbers	1.1 Read and write percentages in whole numbers
	1.2 Order and compare percentages in whole numbers, both ascending and descending
2. Be able to calculate percentages of quantities including simple percentage increases and decreases	2.1 Calculate percentages of quantities including simple percentage increases by 5% and multiples of 5%
	2.2 Calculate percentages of quantities including simple percentage decreases by 5% and multiples of 5%

Delivery and assessment guidance
The focus of the unit is to enable the learner to develop strategies for working with percentages in a range of contexts. Learners must be able to carry out calculations with percentages using written methods in the first instance. Learners should be encouraged to show their workings to demonstrate their understanding of the underpinning knowledge and skills required when working with percentages. Learners will use a calculator in LO2 to work with percentages. To encourage development of skills using mental methods, learners could complete calculations and provide verbal responses to tutors. Whilst developing their skills and knowledge of working with percentages, learners could use a calculator to check their written calculations. **Assessment criteria: 1.1–1.2** Tutors could provide learners with a range of questions using percentages between 1 and 99. Learners must demonstrate on at least 3 occasions that they can meet each of the assessment criteria set out above including both single and double-digit percentages.

Delivery and assessment guidance

Assessment criteria: 2.1–2.2

Learners must be able to calculate simple percentages with multiples of 5% such as calculating 20% and 45%.

For example, learners could be asked to:

- calculate the new value following a percentage increase and decrease
- find a percentage of a value for items such as:
  - sales increases and decreases
  - wages
  - tax
  - increased and decreased values from a range of quantities and measurements

Learners must use written methods with accurate solutions that can be checked using a calculator.

Learners must demonstrate on at least 3 occasions that they can calculate simple percentages including single and double-digit percentages.

Evidence for this unit could include:

- learner evidence generated during other programmes of study or work activities, for example:
  - stock checks
  - shift rotas
  - sales figures
  - payslips
  - sports event scores
- multiple choice and/or short answer question paper

Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 05 Introduction to converting decimals, fractions and percentages (R/650/1831)

Unit summary			
This unit aims to develop skills and build confidence in converting between common fractions, decimals, and percentages.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**10 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to convert between common fractions, percentages, and decimals	1.1 Demonstrate converting from common fractions to decimals
	1.2 Demonstrate converting from common fractions to percentages
	1.3 Demonstrate converting from common percentages to fractions
	1.4 Demonstrate converting from common percentages to decimals
	1.5 Demonstrate converting from common decimals to fractions
	1.6 Demonstrate converting from common decimals to percentages

Delivery and assessment guidance

The focus of the unit is to enable the learner to develop strategies for converting between common fractions, decimals, and percentages.

Learners must be able to carry out calculations with decimals, fractions and percentages using written methods in the first instance.

Learners should be encouraged to show their workings to demonstrate their understanding of the underpinning knowledge and skills required when working with decimals, fractions and percentages.

Learners will use a calculator to practise and check calculations converting fractions, decimals and percentages using a calculator.

To encourage development of skills using mental methods, learners could complete calculations and provide verbal responses to tutors.

Assessment criteria: 1.1–1.6

Tutors must provide a range of questions that allow learners to demonstrate the knowledge and ability to recognise and calculate equivalences and convert between fractions, decimals, and percentages.

Learners could use a calculator to find percentages or check accuracy of written calculations.

Learners must demonstrate on at least one occasion that they can achieve each of the assessment criteria set out above.

Delivery and assessment guidance

Evidence for this unit could include:
 	
• learner evidence generated during other programmes of study or work activities, for example:
  ○ stock checks
  ○ shift rotas
  ○ sales figures
  ○ payslips
  ○ sports event scores
• multiple choice and/or short answer question paper
 	
Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 06 Working with measurement (T/650/1832)

Unit summary			
This unit aims to develop the skills needed to work with length, weight, capacity, and time in the same measurement system. Learners will also be able to use a scale to calculate a measurement.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**30 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to convert between units of time using the 12-hour and 24-hour formats	1.1 **Convert** between hours and minutes
	1.2 Calculate a total time length using times given in hours and minutes
	1.3 Convert between 12-hour and 24-hour time formats
2. Be able to convert between units of length and weight in the same system	2.1 Convert between **millimetres, centimetres, metres, and kilometres**
	2.2 Convert between inches and feet
	2.3 Convert between grams and kilograms
	2.4 Convert between **ounces, pounds, and stones**
3. Be able to convert between units of capacity in the same system	3.1 Convert between millilitres and litres
	3.2 Convert between **fluid ounces, pints, and gallons**
4. Be able to use simple scales with common measurements on maps and drawings within the same system	4.1 Use a simple scale factor to calculate an actual measurement on a map or drawing

Range
1. Be able to convert between units of time using the 12-hour and 24-hour formats
1.1–1.2 Learners must be taught how to **convert** fractional hours into minutes and minutes into fractional hours, for example: • $\frac{1}{4}$ hour = 15 minutes • 45 minutes = $\frac{3}{4}$ of an hour Learners must also be taught the ability to add units of time with a combination of minutes and hours, for example, 2.25 hours + 45 minutes.

Range
2. Be able to convert between units of length and weight in the same system
2.1 Millimetres, centimetres, metres, and kilometres must include converting: • millimetres (mm) to centimetres (cm) and metres (m) • centimetres to millimetres and metres • metres to centimetres and kilometres (km) **2.4 Ounces, pounds, and stones** includes converting: • ounces to pounds and stones • stones to pounds and ounces For imperial units, the conversion factor will be given to the learner.
3. Be able to convert between units of capacity in the same system
3.2 Fluid ounces, pints, and gallons includes converting: • fluid ounces to pints • pints to gallons • gallons to pints • pints to fluid ounces For imperial units, the conversion factor will be given to the learner.

Delivery and assessment guidance
The focus of the unit is to enable learners to develop strategies for working with measurement in a range of contexts. Learners must demonstrate their ability to convert between units of measurement involving length, weight, and capacity in the same system, and between units of time using the 12-hour and 24-hour formats. Learners must also be able to recognise and make use of simple scales on maps and drawings to calculate actual lengths and distances. When performing calculations, learners should use written methods to demonstrate their ability to work with common measures, both metric and imperial, but could check their solutions using either a calculator or inverse calculations. Learners must ensure that all calculations and solutions are accurate, but values may be rounded to the nearest whole unit or to 1 dp or 2 dp if considered appropriate. This could then also provide evidence for Unit 3 Working with decimals (H/650/1828). **Assessment criteria: 1.1–1.3** Learners must be familiar with the 12-hour and 24-hour time formats. Tutors should ensure that learners have access to clocks or images that show both formats

Delivery and assessment guidance

Learners must use their knowledge of reading 12-hour and 24-hour time formats to convert between different units of time; this could include common timetables such as:

- train or bus timetables
- college timetables
- shift working rotas

Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above.

Assessment criteria: 2.1–3.2

Learners must be familiar with the common units of measurement and demonstrate evidence of converting between units in the same system for length, weight, and capacity.

Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above.

For example, in AC2.1 this could be one task where the learner shows their ability to convert from:

- mm to cm
- m to km
- km to m
- cm to mm

Assessment criterion: 4.1

Learners must use maps and mileage charts to complete the assessment criterion.

Tutors must ensure that maps selected have a simple scale that is relevant for level 1 learners.

Learners must demonstrate on at least 2 occasions that they can work with scale factors, for example, 1 map and 1 scale drawing or plan.

Evidence for this unit could include:

- learner evidence generated during other programmes of study or work activities, for example:
  - stock checks
  - shift rotas
  - sales figures
  - payslips
  - sports event scores
- multiple choice and/or short answer question paper

Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 07 Working with 2D and 3D shapes and angles (D/650/1835)

Unit summary			
This unit aims to develop the learners' skills in visualising, drawing and describing 2D shapes and using the properties of 2D shapes in calculations. It also aims to develop the learners' skills in interpreting plans, elevations, and nets of simple 3D shapes and in calculating the volumes of cubes and cuboids**.**			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**20 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to draw 2D shapes and demonstrate an understanding of line symmetry	1.1 **Draw** 2D **shapes** in different orientations using a grid
	1.2 Draw lines of symmetry in 2D **shapes**
2. Be able to use and measure angles	2.1 Identify and describe the different **types of angles**
	2.2 Use angles to describe position and direction
	2.3 Measure angles to an **acceptable degree of tolerance**
3. Be able to calculate the area and perimeter of simple shapes and calculate the volume of cubes and cuboids	3.1 Calculate the perimeter of 2D shapes including those made up of a combination of rectangles
	3.2 Calculate the area of 2D shapes including those made up of a combination of rectangles
	3.3 Calculate the volume of cubes and cuboids
4. Be able to interpret plans, elevations, and nets of simple 3D shapes	4.1 Interpret plans and elevations of 3D shapes including plan view, side, and front elevation
	4.2 Interpret nets of 3D shapes

Range
1. Be able to draw 2D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles
1.1 Learners can **draw** either by using a grid or freehand. **1.1–1.2 Shapes** must include: • squares • rectangles • triangles • hexagons • pentagons Learners are not required to draw regular triangles, hexagons and pentagons.

Range
2. Be able to use and measure angles
2.1 Types of angles must include: • acute • right • obtuse • reflex **2.3** An **acceptable degree of tolerance** would be, for example, +/- 2 degrees.

Delivery and assessment guidance
The focus of the unit is to enable learners to develop strategies for working with 2D shapes and space. Learners will also develop their knowledge of basic mathematical terms, including: • angles • lines of symmetry • perimeter • area • volume Tutors must ensure that learners have access to protractors, rulers and grid paper to enable them to complete the requirements of this unit. When performing calculations, learners should use written methods to demonstrate their ability to work with 2D shapes and space. Learners must ensure that all calculations and measurements are accurate and functionally rounded. **Assessment criterion: 1.1** Tutors must provide a grid, empty space, or paper for learners to draw 2D shapes. The shapes must include: • squares • rectangles • triangles • hexagons • pentagons Learners must demonstrate on at least 2 occasions that they can achieve the assessment criterion set out above. **Assessment criterion: 1.2** Tutors must provide a range of regular 2D shapes and 2D shapes that may be comprised of different sized rectangles for learners to work with. Learners must demonstrate on at least 2 occasions that they can achieve the assessment criterion set out above.

Delivery and assessment guidance

Assessment criteria: 2.1–2.3

Tutors must provide a range of regular 2D shapes, and 2D shapes including:

- squares
- rectangles
- triangles
- hexagons
- pentagons

Tutors must also provide a range of angles for learners to identify, for example:

- acute
- right angle
- obtuse
- reflex

Learners should be familiar with using a protractor and measuring angles of 2D shapes.

Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above.

Assessment criteria: 3.1–3.3

Learners should be familiar with working with 2D shapes and simple 3D shapes.

Tutors must provide a range of regular 2D shapes including 2D shapes that may be comprised of different sized rectangles and simple 3D shapes for learners to work with.

Learners must demonstrate on at least 2 occasions achievement of both AC3.1 and 3.2, for example:

- AC3.1 one piece of evidence showing perimeter of a rectangle and another showing perimeter of a compound shape
- AC3.2 one piece of evidence showing area of a rectangle and another the area of compound shapes

For AC3.3, learners must demonstrate on at least 2 occasions that they can achieve the assessment criterion, once for volume of a cube and once for volume of a cuboid.

Assessment criteria: 4.1–4.2

Learners should be familiar with plans and elevations and have an understanding of nets of 3D shapes.

Learners must demonstrate on at least 3 occasions that they can achieve AC4.1, including plan view, side, and front.

Learners must demonstrate on at least 2 occasions that they can achieve AC4.2.

Delivery and assessment guidance

Evidence could include:
 	
• learner evidence generated during other programmes of study or work activities, for example:
  ○ stock checks
  ○ shift rotas
  ○ sales figures
  ○ payslips
  ○ sports event scores
• multiple choice and/or short answer question paper
 	
Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 08 Working with money to calculate interest and discounts (H/650/1837)

Unit summary			
This unit aims to develop skills in the calculation of simple interest and discounts on amounts of money.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**10 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to calculate simple interest in multiples of 5% on amounts of money	1.1 Convert between **units of money**
	1.2 Calculate 5% and multiples of 5% of an amount of money
	1.3 Calculate a new money value with an increase of 5%, or multiples of 5%
2. Be able to calculate discounts in multiples of 5% on amounts of money	2.1 Calculate a new money value following a discount with 5%, or multiples of 5%
	2.2 Write money values to **2 decimal places** at all times

Range
1. Be able to calculate simple interest in multiples of 5% on amounts of money
1.1 Units of money could be currencies other than GBP if they are more familiar to the learner, they should only convert within units of the same currency rather than between currencies.
2. Be able to calculate discounts in multiples of 5% on amounts of money
2.2 Use of decimal places and/or commas should be used accurately in accordance with the currency the learner is working with.

Delivery and assessment guidance
The focus of the unit is to enable the learner to be able to apply simple interest and calculate discounts of 5% and multiples of 5% (for example, 25% or 35%) on amounts of money. For example, the learners could use pounds sterling, euro or dollars as the currency to work with in this unit and give final values in the correct notation, for example, 2 dp even when a value ends in 0. Use of decimal places, and/or commas should be used accurately in accordance with the currency the learner is working with. Learners should be encouraged to show their workings in writing for their calculations whether they are written or completed using a calculator. **Assessment criteria: 1.1–1.3** Learners should be familiar with working with money and the common currencies available to them.

Delivery and assessment guidance

Learners may round sums of money from calculations up to the nearest whole denomination, for example:

- if using GBP, the learner could round up to £1.00, £5.00, £10.00, £50.00 and £100.00
- if using dollars, $1.00, $2.00, $5.00, $10.00, $20.00, $50.00 and $100.00

This could also then provide evidence for Unit 3 Working with decimals (H/650/1828), LO2.

Learners must demonstrate on at least 2 occasions that they can achieve AC1.1, for example, converting pounds to pence and vice versa.

Learners must also demonstrate on at least 2 occasions that they can achieve each of the other assessment criteria set out above.

Assessment criteria: 2.1 – 2.2

Learners should be familiar with working with money and the common currencies available to them.

Learners must complete a range of calculations to calculate new values following a discount.

Learners must work with whole numbers and with decimals in their calculations; use of decimal places and/or commas should be used accurately in accordance with the currency the learner is working with.

Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above.

Learners must demonstrate their ability to recognise the amounts of sums of money written in words and numbers and convert between the 2 formats.

Once learners have completed their calculations by the written methods, they should check their calculations using a calculator.

Evidence could include:

- learner evidence generated during other programmes of study or work activities, for example:
  - stock checks
  - shift rotas
  - sales figures
  - payslips
  - sports event scores
- multiple choice and/or short answer question paper

Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 09 Introduction to working with statistics (J/650/1838)

Unit summary			
This unit aims to develop the learners' ability to represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs. Learners will also be able to group discrete data and represent grouped data graphically. It will also enable the learner to calculate the mean and range of given sets of data.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**20 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to represent discrete data in tables, diagrams, and charts	1.1 Identify suitable tables, diagrams, and charts for the representation of discrete data
	1.2 Construct bar charts and line graphs with accurate axis labels, title, and consistent Y axis scale
	1.3 Construct pie charts with accurate sectors and appropriate key
2. Be able to group discrete data and represent grouped data graphically	2.1 Group discrete data into relevant groupings with no overlapping groups
	2.2 Construct a simple frequency table with appropriate headings and accurate frequencies matching the groupings
	2.3 Represent **grouped data** graphically
3. Be able to find the mean and range of a set of quantities	3.1 Calculate the mean for a set of data
	3.2 Calculate the range for a set of data

Range
2. Be able to group discrete data and represent grouped data graphically
2.3 Grouped data should be represented in frequency tables**,** bar charts and line graphs.

Delivery and assessment guidance
The focus of the unit is to enable the learner to present data in a range of formats and to be able to calculate the mean and range of sets of values. Learners are expected to be able to represent data in tables, charts and diagrams including bar charts, line graphs, pie charts and simple frequency tables. Tutors should provide a range of data to work with and learners will be able to choose the most appropriate method to organise and present this data. **Assessment criteria: 1.1–1.3** Learners should be given a range of sources of information in a variety of formats to enable them to demonstrate their ability to present information in tables, diagrams and charts. Tutors should provide a variety of information that could relate to everyday contexts that the learners may be familiar with, for example: • online shopping • learner surveys

Delivery and assessment guidance

- sales figures
- temperature charts
- stock checks
- traffic flow surveys

Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above.

Assessment criteria: 2.1–2.3

Learners must demonstrate their ability to represent data using the appropriate method. Learners will have to consider the type of data that they have been presented with and decide on the most appropriate method of representing the data.

Tutors should provide a range of information that requires learners to organise and present different sets of data in a variety of appropriate ways, including frequency tables, bar charts and line graphs.

This will allow learners to demonstrate their understanding and ability at representing data in a variety of formats. A minimum of 3 sets of data should be provided to the learner.

Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above.

Assessment criteria: 3.1–3.2

Learners could use the information provided for LO2 to aid coverage of this learning outcome.

Alternatively, tutors could provide new data sets for learners to work with.

Learners must ensure that the mean and range solutions provided are accurate and show their calculations.

Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above.

Evidence could include:

- learner evidence generated during other programmes of study or work activities, for example:
  - stock checks
  - shift rotas
  - sales figures
  - payslips
  - sports event scores
- multiple choice and/or short answer question paper

Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 10 Introduction to working with probability (K/650/1839)

Unit summary			
This unit aims to develop learners' understanding of probability and to be able to state the likely outcome of events in mathematical terms. Learners will be able to show how to indicate the probability of an outcome on a probability scale and use probabilities to compare the likelihood of events. It will also enable learners to use equally likely outcomes to find the probability of simple events and express them as fractions.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Mandatory	**Achieved/not yet achieved**	**Level 1**	**20 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to demonstrate an understanding of probability on a scale from 0 to 1 and use probabilities to compare the likelihood of events	1.1 Define probability
	1.2 Explain how the probability of an event is measured on a scale from 0 (impossible) to 1 (certain)
	1.3 Describe how probability is determined
	1.4 Use probabilities to compare the likelihood of events
2. Be able to use equally likely outcomes to find the probabilities of simple events and express them as fractions	2.1 Collect data about a topic
	2.2 Calculate the probability of an event
	2.3 Express the probability of an outcome as a fraction

Delivery and assessment guidance

Assessment criteria: 1.1–1.4

The assessment criteria may be achieved through group/class discussions or individual discussions with tutors or through a short report or presentation.

Learners may cover the assessment criteria through a short oral presentation discussing what probability is, how it is measured, how it is determined and identifying the likelihood of different events happening. Learners could support their presentation with simple examples to help illustrate the points being made.

Tutors can support development of knowledge of probability by presenting it in familiar everyday contexts to aid understanding, for example:

- getting a head when tossing a coin
- getting 2 sixes when rolling a pair of dice
- why the cost of travel insurance is more expensive for certain types of holidays
- the probability of one person in a random group having a birthday in a specific month

Delivery and assessment guidance

Learners must demonstrate that they can achieve each of the assessment criteria set out above.
 	
Learners must achieve the above criteria on 2 separate occasions for assessment criterion 1.4.
 	
Assessment criteria: 2.1–2.3
 	
Learners must collect data about a topic of their choosing in a context that is familiar to them. Tutors should ensure that sufficient data is collected so that the calculations are meaningful.
 	
Learners will display the data collected in an appropriate way.
 	
The probability of an event occurring should be calculated based on the data gathered.
 	
Learners should ensure that the result is meaningful and expressed correctly, such as:
 	
• between 0 and 1
• expressed as a fraction
• by completion of a probability scale
 	
Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above.
 	
Evidence for this unit could include:
 	
• learner evidence generated during other programmes of study or work activities, for example:
  ○ stock checks
  ○ shift rotas
  ○ sales figures
  ○ payslips
  ○ sports event scores
• multiple choice and/or short answer question paper
 	
Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Unit 11 Introduction to working with algebra and geometry (T/650/1841)

Unit summary			
This unit aims to develop a basic understanding of some of the broader mathematics concepts and content. The learner will develop skills in working with basic geometry and algebra, which could support the learner to progress to GCSE mathematics.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Optional	**Achieved/not yet achieved**	**Level 1**	**20 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to work with straightforward algebraic expressions	1.1 Manipulate algebraic expressions by collecting like terms
	1.2 Multiply single algebraic terms over a bracket
	1.3 Factorise algebraic expressions by taking out common factors
2. Be able to work with straightforward geometric concepts	2.1 Identify the angle properties of parallel lines and intersecting lines
	2.2 Find missing angles in: • quadrilaterals • triangles

Delivery and assessment guidance

The focus of the unit is to enable the learner to develop strategies for working with basic algebra and geometry.

Learners must be able to carry out calculations using basic algebraic expressions and using common rules for working with them.

Learners must understand angle properties of parallel and intersecting lines and will use basic geometry rules to calculate missing angles in common quadrilaterals and triangles.

Learners must use a written method and show their workings for both learning outcomes (LOs).

Assessment criteria: 1.1–1.3

Tutors could provide learners with a range of straightforward algebraic expressions to work with.

Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above.

Assessment criteria: 2.1–2.2

Tutors could provide a range of diagrams consisting of parallel and intersecting lines for learners to work with.

A range of basic quadrilaterals and triangles should be provided for learners to complete AC2.2. To aid calculation of missing angles, tutors must ensure that the sizes of some angles are provided.

Learners must demonstrate on at least 2 occasions that they can achieve each of the assessment criteria set out above, including evidence for quadrilaterals and triangles in AC2.2.

Delivery and assessment guidance

Evidence for this unit could include:
 	
• learner evidence generated during other programmes of study or work activities, for example:
  ○ stock checks
  ○ shift rotas
  ○ sales figures
  ○ payslips
  ○ sports event scores
  ○ multiple choice and/or short answer question paper

Unit 12 Introduction to working with mathematical skills (Y/650/1842)

Unit summary			
This unit aims to develop learners' ability to read, understand and use mathematical skills required at this level. This unit will prepare learners for progression to a level 1 Functional Skills qualification in mathematics.			
Assessment			
This unit is internally assessed via a portfolio of evidence.			
Optional	**Achieved/not yet achieved**	**Level 1**	**20 GLH**

Learning outcomes The learner will:	**Assessment criteria** The learner can:
1. Be able to work with mathematical skills to address individual practical problems	1.1 Read, understand, and use mathematical information and mathematical terms required to address individual problems
	1.2 Use knowledge and understanding to a required level of accuracy
	1.3 Analyse and interpret answers in the context of the original problem
	1.4 Check answers for accuracy using a calculator, approximation, or inverse calculations
	1.5 Present results with an appropriate explanation and interpretation that demonstrates simple reasoning

Delivery and assessment guidance

The focus of the unit is to enable the learner to develop strategies for working with mathematical skills to solve simple practical problems.

The learner will be able to draw on the skills, knowledge and understanding developed throughout units 1–10 when undertaking this unit.

Learners must use written methods when presenting evidence for solving problems and show all workings, even if calculations are completed throughout the unit using a calculator.

Learners should be encouraged to use a calculator to check their solutions to problems.

Assessment criteria: 1.1–1.5

Tutors must provide learners with a range of straightforward, practical problems that may be solved by using mathematical skills.

The problems must be within contexts familiar to learners whilst allowing the demonstration of mathematical skills and knowledge. Learners must find or calculate some of the necessary information to find a solution to the problem.

Solutions must be presented in written format and learners may support this with a short oral presentation to discuss how they approached the problem and arrived at the solution.

Evidence for this unit may also be cross-referenced from other units where applicable.

A minimum of 3 pieces of evidence must be provided that cover all assessment criteria, for example, one task may involve AC1.1, 1.2 and 1.4, whilst another covers AC1.3 and 1.5 in order to demonstrate achievement in this unit.

Delivery and assessment guidance

Evidence for this unit could include:
 	
• learner evidence generated during other programmes of study or work activities, for example:
  ○ stock checks
  ○ shift rotas
  ○ sales figures
  ○ payslips
  ○ sports event scores
• multiple choice and/or short answer question paper
 	
Tutors could provide tasks from sample level 1 Functional Skills assessments for learners to complete that will also provide support for progression to Functional Skills.

Assessment strategies and principles relevant to this qualification

The units we offer have been developed in line with the specific assessment strategies or principles of different Sector Skills Councils (SSCs) or by us where there is no SSC lead.

The key requirements of the assessment strategies or principles that relate to units in this qualification are summarised below.

The centre needs to ensure that individuals undertaking assessor or quality assurer roles within the centre conform to the SSC or our assessment requirements for the unit they are assessing or quality assuring.

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 1 in the unit content are applied to this qualification (not all verbs are used in this qualification).

Define	Give the meaning of a word or phrase.
Demonstrate	Show an understanding of the subject.
Describe	Provide details about the subject or item.
Explain	Provide details about the subject with reasons showing how or why.
Give (examples of…)	Provide relevant examples to support the subject.
Identify	List or name the main points.
Indicate	Point out or show using words, illustrations, or diagrams.
Locate	Find or identify.
List	Make a list of words, sentences, or comments.
Outline	Identify or describe the main points.
Plan	Think about, organise and present information in a logical way. This could be presented as written information, a diagram or an illustration.
Show	Give information that includes clear knowledge about the subject.
State	Give the main points in brief, clear sentences.
Use	Take an item, resource or piece of information and link to the question or task.

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)
- learning resources
- qualification factsheet

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 centre'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.

Group A mandatory units

Unit number	Regulated unit number	Unit title	Level	GLH
Unit 01	R/650/1813	Working with whole numbers up to one million	1	30
Unit 02	D/650/1826	Working with fractions	1	10
Unit 03	H/650/1828	Working with decimals	1	10
Unit 04	M/650/1830	Working with percentages	1	10
Unit 05	R/650/1831	Introduction to converting decimals, fractions and percentages	1	10
Unit 06	T/650/1832	Working with measurement	1	30
Unit 07	D/650/1835	Working with 2D and 3D shapes and angles	1	20
Unit 08	H/650/1837	Working with money to calculate interest and discounts	1	10
Unit 09	J/650/1838	Introduction to working with statistics	1	20
Unit 10	K/650/1839	Introduction to working with probability	1	20

Group B optional units

Unit number	Regulated unit number	Unit title	Level	GLH
Unit 11	T/650/1841	Introduction to working with algebra and geometry	1	20
Unit 12	Y/650/1842	Introduction to working with mathematical skills	1	20

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

Appendix B: Functional Skills subject content statement mapping

Unit	Assessment criteria	Functional Skills mathematics subject content statement
01	1.1 Read and write whole numbers up to 1 million in both figures and words	L1.N1 Read, write, order and compare large numbers (up to 1 million)
01	1.2 Order and compare whole numbers up to 1 million in either ascending or descending order	L1.N1 Read, write, order and compare large numbers (up to 1 million)
01	2.1 Use positive whole numbers in calculations to find solutions to straightforward problems involving multiplication and division	L1.N2 Recognise and use positive and negative numbers
01	2.2 Use positive and negative whole numbers in calculations to find solutions to straightforward problems using addition and subtraction	L1.N2 Recognise and use positive and negative numbers
01	3.1 Use multiplication facts up to 12 x 12	L1.N4 Use multiplication facts and make connections with division facts
01	3.2 Multiply and divide whole numbers by 10, 100 and 1000	L1.N3 Multiply and divide whole numbers and decimals by 10, 100 and 1000
01	3.3 Make connections with division facts of whole numbers	L1.N4 Use multiplication facts and make connections with division facts
01	3.4 Use the notation n^2 to calculate the squares of one and two-digit numbers	L1.N6 Calculate the squares of one digit and 2-digit number
01	4.1 Follow the order of precedence of operators	L1.N7 Follow the order of precedence of operators
01	4.2 Use simple formulae expressed in words for one-step or two-step operations	L1.N5 Use simple formulae expressed in words for one or two-step operations
01	5.1 Work out simple ratio as the number of parts from a whole number	L1.N17 Work with simple ratio and direct proportions
01	5.2 Increase and decrease whole numbers using direct proportion	L1.N17 Work with simple ratio and direct proportions
02	1.1 Read and write common fractions and mixed numbers	L1.N8 Read, write, order and compare common fractions and mixed numbers
02	1.2 Order and compare common fractions and mixed numbers	L1.N8 Read, write, order and compare common fractions and mixed numbers
02	2.1 Find fractional values of whole numbers or measurements	L1.N9 Find fractions of whole number quantities or measurements
02	3.1 Demonstrate estimating answers to calculations using common fractions	L1.N15 Estimate answers to calculations using fractions and decimals

Unit	Assessment criteria	Functional Skills mathematics subject content statement
03	1.1 Read and write decimals up to 3 decimal places	L1.N10 Read, write, order and compare decimals up to 3 decimal places
03	1.2 Order and compare decimals up to 3 decimal places in either ascending or descending order	L1.N10 Read, write, order and compare decimals up to 3 decimal places
03	2.1 Add and subtract decimal numbers up to 2 decimal places	L1.N11 Add, subtract, multiply and divide decimals up to 2 decimal places
03	2.2 Multiply and divide decimal numbers up to 2 decimal places	L1.N11 Add, subtract, multiply and divide decimals up to 2 decimal places
03	2.3 Multiply and divide decimal numbers by 10, 100 and 1000	L1.N3 Multiply and divide whole numbers and decimals by 10, 100 and 1000
03	2.4 Approximate by rounding to a whole number or to 1 or 2 decimal places	L1.N12 Approximate by rounding to a whole number or to one or two decimal places
03	2.5 Estimate answers to calculations using decimals	L1.N15 Estimate answers to calculations using fractions and decimals
04	1.1 Read and write percentages in whole numbers	L1.N13 Read, write, order and compare percentages in whole numbers
04	1.2 Order and compare percentages in whole numbers, both ascending and descending	L1.N13 Read, write, order and compare percentages, in whole decimal places
04	2.1 Calculate percentages of quantities including simple percentage increases by 5% and multiples of 5%	L1.N14 Calculate percentages of quantities, including simple decimal places
04	2.2 Calculate percentages of quantities including simple percentage decreases by 5% and multiples of 5%	L1.N14 Calculate percentages of quantities, including simple percentage increases and decreases by 5% and multiples thereof
05	1.1 Demonstrate converting from common fractions to decimals	L1.N16 Recognise and calculate equivalences between common fractions, percentages and decimals
05	1.2 Demonstrate converting from common fractions to percentages	L1.N16 Recognise and calculate equivalences between common fractions, percentages and decimals
05	1.3 Demonstrate converting from common percentages to fractions	L1.N16 Recognise and calculate equivalences between common fractions, percentages and decimals
05	1.4 Demonstrate converting from common percentages to decimals	L1.N16 Recognise and calculate equivalences between common fractions, percentages and decimals

Unit	Assessment criteria	Functional Skills mathematics subject content statement
05	1.5 Demonstrate converting from common decimals to fractions	L1.N16 Recognise and calculate equivalences between common fractions, percentages and decimals
05	1.6 Demonstrate converting from common decimals to percentages	L1.N16 Recognise and calculate equivalences between common fractions, percentages and decimals
06	1.1 Convert between hours and minutes	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
06	1.2 Calculate a total time length using times given in hours and minutes	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
06	1.3 Convert between 12-hour and 24-hour time formats	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
06	2.1 Convert between millimetres, centimetres, metres, and kilometres	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
06	2.2 Convert between inches and feet	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
06	2.3 Convert between grams and kilograms	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
06	2.4 Convert between ounces, pounds, and stones	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
06	3.1 Convert between millilitres and litres	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
06	3.2 Convert between fluid ounces, pints, and gallons	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
06	4.1 Use a simple scale factor to calculate an actual measurement on a map or drawing	L1.M21 Recognise and make use of simple scales on maps and drawings
07	1.1 Draw 2D shapes in different orientations using a grid	L1.M24 Draw 2D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles
07	1.2 Draw lines of symmetry in 2D shapes	L1.M24 Draw 2D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles

Unit	Assessment criteria	Functional Skills mathematics subject content statement
07	2.1 Identify and describe the different types of angles	L1.M24 Draw 2D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles
07	2.2 Use angles to describe position and direction	L1.M26 Use angles when describing position and direction, and measure angles in degrees
07	2.3 Measure angles to an acceptable degree of tolerance	L1.M26 Use angles when describing position and direction, and measure angles in degrees
07	3.1 Calculate the perimeter of 2D shapes including those made up of a combination of rectangles	L1.M22 Calculate the area and perimeter of simple shapes including those that are made up of a combination of rectangles
07	3.2 Calculate the area of 2D shapes including those made up of a combination of rectangles	L1.M22 Calculate the area and perimeter of simple shapes including those that are made up of a combination of rectangles
07	3.3 Calculate the volume of cubes and cuboids	L1.M23 Calculate the volumes of cubes and cuboids
07	4.1 Interpret plans and elevations of 3D shapes including plan view, side and front elevation	L1.M25 Interpret plans, elevations and nets of simple 3D shapes
07	4.2 Interpret nets of 3D shapes	L1.M25 Interpret plans, elevations and nets of simple 3D shapes
08	1.1 Convert between units of money	L1.M20 Convert between units of length, weight, capacity, money and time, in the same system
08	1.2 Calculate 5% and multiples of 5% of an amount of money	L1.M18 Calculate simple interest in multiples of 5% on amounts of money
08	1.3 Calculate a new money value with an increase of 5%, or multiples of 5%	L1.M18 Calculate simple interest in multiples of 5% on amounts of money
08	2.1 Calculate a new money value following a discount with 5%, or multiples of 5%	L1.M19 Calculate discounts in multiples of 5% on amounts of money
08	2.2 Write money values to 2 decimal places at all times	L1.M19 Calculate discounts in multiples of 5% on amounts of money
09	1.1 Identify suitable tables, diagrams, and charts for the representation of discrete data	L1.H27 Represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs
09	1.2 Construct bar charts and line graphs with accurate axis labels, title and consistent Y axis scale	L1.H27 Represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs
09	1.3 Construct pie charts with accurate sectors and appropriate key	L1.H27 Represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs

Unit	Assessment criteria	Functional Skills mathematics subject content statement
09	2.1 Group discrete data into relevant groupings with no overlapping groups	L1.H28 Group discrete data and represent grouped data graphically
09	2.2 Construct a simple frequency table with appropriate headings and accurate frequencies matching the groupings	L1.H28 Group discrete data and represent grouped data graphically
09	2.3 Represent grouped data graphically	L1.H28 Group discrete data and represent grouped data graphically
09	3.1 Calculate the mean for a set of data	L1.H29 Find the mean and range of a set of quantities
09	3.2 Calculate the range for a set of data	L1.H29 Find the mean and range of a set of quantities
10	1.1 Define probability	L1.H30 Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events
10	1.2 Explain how the probability of an event is measured on a scale from 0 (impossible) to 1 (certain)	L1.H30 Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events
10	1.3 Describe how probability is determined	L1.H30 Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events
10	1.4 Use probabilities to compare the likelihood of events	L1.H30 Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events
10	2.1 Collect data about a topic	L1.H31 Use equally likely outcomes to find the probabilities of simple events and express them as fractions
10	2.2 Calculate the probability of an event	L1.H31 Use equally likely outcomes to find the probabilities of simple events and express them as fractions
10	2.3 Express the probability of an outcome as a fraction	L1.H31 Use equally likely outcomes to find the probabilities of simple events and express them as fractions
11	1.1 Manipulate algebraic expressions by collecting like terms	Does not map to Functional Skills
11	1.2 Multiply single algebraic terms over a bracket	Does not map to Functional Skills
11	1.3 Factorise algebraic expressions by taking out common factors	Does not map to Functional Skills
11	2.1 Identify the angle properties of parallel lines and intersecting lines	Does not map to Functional Skills

Unit	Assessment criteria	Functional Skills mathematics subject content statement
11	2.2 Find missing angles in: • quadrilaterals • triangles	L2.M22 Calculate values of angles and/or coordinates with 2D and 3D shapes* *Please note this AC maps to level 2 Functional Skills scope of study
12	1.1 Read, understand and use mathematical information and mathematical terms required to address individual problems	L1.PS1 Read, understand and use mathematical information and shapes* L1.PS2 Address individual problems as described above
12	1.2 Use knowledge and understanding to a required level of accuracy	L1.PS3 Use knowledge and understanding to a required level of accuracy
12	1.3 Analyse and interpret answers in the context of the original problem	L1.PS4 Analyse and interpret answers in the context of the original problem
12	1.4 Check answers for accuracy using a calculator, approximation, or inverse calculations	L1.PS5 Check the sense, and reasonableness of answers
12	1.5 Present results with an appropriate explanation and interpretation that demonstrates simple reasoning	L1.PS6 Present results with appropriate explanation and interpretation demonstrating simple reasoning to support the process and show consistency with the evidence presented