

Qualification Specification NCFE Level 1 Maths Qualification Suite

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Section 1 Qualification overview

Introduction

We want to make your experience of working with NCFE as pleasant and easy as possible. This qualification specification contains everything you need to know about these qualifications and should be used by everyone involved in the planning, delivery and assessment of the suite of NCFE Level 1 Maths qualifications.

All information contained in this specification is correct at the time of publishing.

If you advertise these qualifications using a different or shortened name you must ensure that learners are aware that their final certificate will state one of the regulated qualification titles listed below:

- NCFE Level 1 Certificate in Maths
- NCFE Level 1 Award in Maths: Using number
- NCFE Level 1 Award in Maths: Using measurement, shape and space
- NCFE Level 1 Award in Maths: Handling data
- NCFE Level 1 Award in Maths: Working with whole numbers
- NCFE Level 1 Award in Maths: Working with fractions
- NCFE Level 1 Award in Maths: Working with decimals and percentages
- NCFE Level 1 Award in Maths: Working with measurement
- NCFE Level 1 Award in Maths: Working with 2D shapes and space
- NCFE Level 1 Award in Maths: Working with money
- NCFE Level 1 Award in Maths: Working with statistics
- NCFE Level 1 Award in Maths: Working with probability
- NCFE Level 1 Award in Maths: Working with basic algebra and geometry
- NCFE Level 1 Award in Maths: Working with mathematical skills.

About these qualifications

These are regulated qualifications. The regulated numbers for these qualifications follow in the section below.

This suite of NCFE Maths qualification is designed to replace the Adult Basic Skills programmes and it supports learner progression towards achieving GCSE (A*–C) or Level 2 Functional Skills in Maths.

The qualifications are based on the National Standards for Numeracy (the Core Curriculum).

To support the flexibility and responsiveness required by adult learners the qualifications are provided in a comprehensive suite of Maths qualifications from Entry Level 1 through to Level 2, consisting of single unit Awards, 'themed' Awards and a Certificate at each level. This supports learner progression through to GCSE (A^* –C) or Level 2 Functional Skills in Maths.

These qualifications may be eligible for funding. For further guidance on funding, please contact your local funding provider.

Things you need to know

NCFE Level 1 Certificate in Maths

- Qualification number (QN): 601/1090/9
- Aim reference: 60110909
- Total Qualification Time (TQT): 170
- Guided learning hours (GLH): 170
- Credit value: 17
- Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Using number

- Qualification number (QN): 601/1161/6
- Aim reference: 60111616
- Total Qualification Time (TQT): 70
- Guided learning hours (GLH): 70
- Credit value: 7
- ♦ Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Using measurement, shape and space

- Qualification number (QN): 601/1162/8
- Aim reference: 60111628
- Total Qualification Time (TQT): 40
- Guided learning hours (GLH): 40
- Credit value: 4
- ♦ Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Handling data

- Qualification number (QN): 601/1163/X
- Aim reference: 6011163X
- Total Qualification Time (TQT): 40
- Guided learning hours (GLH): 40
- Credit value: 4
- ♦ Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with whole numbers

- Qualification number (QN): 601/1164/1
- Aim reference: 60111641
- Total Qualification Time (TQT): 30
- Guided learning hours (GLH): 30
- Credit value: 3
- Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with fractions

- Qualification number (QN): 601/1165/3
- Aim reference: 60111653
- Total Qualification Time (TQT): 20
- Guided learning hours (GLH): 20
- Credit value: 2
- Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with decimals and percentages

- Qualification number (QN): 601/1166/5
- Aim reference: 60111665
- Total Qualification Time (TQT): 20
- Guided learning hours (GLH): 20
- Credit value: 2
- Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with measurement

- Qualification number (QN): 601/1167/7
- Aim reference: 60111677
- Total Qualification Time (TQT): 20
- Guided learning hours (GLH): 20
- Credit value: 2
- Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with 2D shapes and space

- Qualification number (QN): 601/1168/9
- Aim reference: 60111689
- Total Qualification Time (TQT): 10
- Guided learning hours (GLH): 10
- Credit value: 1
- Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with money

- Qualification number (QN): 601/1169/0
- Aim reference: 60111690
- Total Qualification Time (TQT): 10
- Guided learning hours (GLH): 10
- Credit value: 1
- ♦ Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with statistics

- Qualification number (QN): 601/1170/7
- Aim reference: 60111707
- Total Qualification Time (TQT): 20
- Guided learning hours (GLH): 20
- Credit value: 2
- Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with probability

- Qualification number (QN): 601/1175/6
- Aim reference: 60111756
- Total Qualification Time (TQT): 20
- Guided learning hours (GLH): 20
- Credit value: 2
- ♦ Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with basic algebra and geometry

- Qualification number (QN): 601/1177/X
- Aim reference: 6011177X
- Total Qualification Time (TQT): 20
- Guided learning hours (GLH): 20
- Credit value: 2
- Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

NCFE Level 1 Award in Maths: Working with mathematical skills

- Qualification number (QN): 601/1178/1
- Aim reference: 60111781
- Total Qualification Time (TQT): 20
- Guided learning hours (GLH): 20
- Credit value: 2
- Level: 1
- Assessment requirements: internally assessed and externally moderated portfolio of evidence

Total Qualification Time (TQT)

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

Total Qualification Time comprises:

- the Guided Learning Hours for the qualification
- 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 not under the immediate guidance or supervision of – a lecturer, supervisor, Tutor or other appropriate provider of education or training.

Aims and objectives of these qualifications

These qualifications aim to provide learners with the underpinning knowledge and skills to support development of their skills using number, measures, shape and space and handling data. The qualifications can support progression into GCSE (A^*-C) or Level 2 Functional Skills qualifications in Maths.

The objectives of these qualifications are reflected in the unit titles and are to help learners to:

- use whole numbers
- use measurement, shape and space
- handle data
- work with whole numbers
- work with fractions
- work with decimals and percentages
- work with money
- work with statistics
- work with probability
- work with basic algebra and geometry
- work with mathematical skills.

Entry guidance

The NCFE Level 1 Maths qualifications are designed for adult learners who've not yet achieved GCSE (A*–C) or Level 2 Functional Skills in Maths and who wish to take their first qualification in the subject. The qualifications will support learners with an identified skills gap in Maths and can be used to support progression into GCSE (A*–C) or Level 2 Functional Skills in Maths.

However, the NCFE Level 1 Maths qualifications may also be suitable for those learners still in education, ie 16–18 year olds, who've not yet achieved GCSE (A^* –C) or Level 2 Functional Skills in Maths. The qualifications could also be used by pre-16 learners who aren't following a traditional GCSE route in education.

These qualifications can also support learners undertaking a vocational programme to develop their skills in Maths. The qualifications could be taken by learners following a GCSE programme of learning who are not yet ready to take GCSE-level studies in Maths.

There are no specific recommended prior learning requirements for these qualifications. However, learners may find it helpful if they've already achieved an Entry Level 3 qualification.

These qualifications are suitable for learners aged pre-16 and above.

Centres are responsible for ensuring that these qualifications are appropriate for the age and ability of learners. They need to make sure that learners can fulfil the requirements of the assessment criteria and comply with the relevant literacy, numeracy and health and safety aspects of these qualifications.

Learners registered on these qualifications shouldn't undertake another qualification at the same level with the same or a similar title, as duplication of learning may affect funding eligibility.

Achieving these qualifications

The Level 1 Maths qualification suite offers a number of single-unit Awards, themed Awards and a Certificate based on the following units:

- Working with whole numbers (Y/505/2740)
- Working with fractions (D/505/2741)
- Working with decimals and percentages (H/505/2742)
- Working with measurement (K/505/2743)
- Working with 2D shapes and space (M/505/2744)
- Working with money (T/505/2745)
- Working with statistics (A/505/2746)
- Working with probability (F/505/2747)
- Working with basic algebra and geometry (J/505/2748)
- Working with mathematical skills (L/505/2749).

Certificate

To be awarded the **NCFE Level 1 Certificate in Maths**, learners are required to successfully complete 8 mandatory units and one optional unit.

Mandatory units

- Working with whole numbers (Y/505/2740)
- Working with fractions (D/505/2741)
- Working with decimals and percentages (H/505/2742)
- Working with measurement (K/505/2743)
- Working with 2D shapes and space (M/505/2744)
- Working with money (T/505/2745)
- Working with statistics (A/505/2746)
- Working with probability (F/505/2747).

Optional units

- Working with basic algebra and geometry (J/505/2748)
- Working with mathematical skills (L/505/2749).

To achieve the NCFE Level 1 Certificate in Maths, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

Themed Awards

To be awarded the **NCFE Level 1 Award in Maths: Using number**, learners are required to successfully complete 3 mandatory units:

- Working with whole numbers (Y/505/2740)
- Working with fractions (D/505/2741)
- Working with decimals and percentages (H/505/2742).

To achieve the NCFE Level 1 Award in Maths: Using Number, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Using measurement, shape and space**, learners are required to successfully complete 3 mandatory units:

- Working with measurement (K/505/2743)
- Working with 2D shapes and space (M/505/2744)
- Working with money (T/505/2745).

To achieve the NCFE Level 1 Award in Maths: Using measurement, shape and space, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Handling data**, learners are required to successfully complete 2 mandatory units:

- Working with statistics (A/505/2746)
- Working with probability (F/505/2747).

To achieve the NCFE Level 1 Award in Maths: Handling data, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

Single unit Awards

To be awarded the **NCFE Level 1 Award in Maths: Working with whole numbers**, learners are required to successfully complete one mandatory unit:

Working with whole numbers (Y/505/2740).

To achieve the NCFE Level 1 Award in Maths: Working with whole numbers, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Working with fractions**, learners are required to successfully complete one mandatory unit:

Working with fractions (D/505/2741).

To achieve the NCFE Level 1 Award in Maths: Working with fractions, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Working in decimals and percentages**, learners are required to successfully complete one mandatory unit:

Working in decimals and percentages (H/505/2742).

To achieve the NCFE Level 1 Award in Maths: Working in decimals and percentages, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Working with measurement**, learners are required to successfully complete one mandatory unit:

• Working with measurement (K/505/2743).

To achieve the NCFE Level 1 Award in Maths: Working with measurement, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the NCFE Level 1 Award in Maths: Working with 2D shapes and space, learners are required to successfully complete one mandatory unit:

Working with 2D shapes and space (M/505/2744).

To achieve the NCFE Level 1 Award in Maths: Working with 2D shapes and space, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Working with money**, learners are required to successfully complete one mandatory unit:

♦ Working with money (T/505/2745).

To achieve the NCFE Level 1 Award in Maths: Working with money, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Working with statistics**, learners are required to successfully complete one mandatory unit:

• Working with statistics (A/505/2746).

To achieve the NCFE Level 1 Award in Maths: Working with statistics, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Working with probability**, learners are required to successfully complete one mandatory unit:

Working with probability (F/505/2747).

To achieve the NCFE Level 1 Award in Maths: Working with probability, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Working with basic algebra and geometry**, learners are required to successfully complete one mandatory unit:

• Working with basic algebra and geometry (J/505/2748).

To achieve the NCFE Level 1 Award in Maths: Working with basic algebra and geometry, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

To be awarded the **NCFE Level 1 Award in Maths: Working with mathematical skills**, learners are required to successfully complete one mandatory unit:

Working with mathematical skills (L/505/2749).

To achieve the NCFE Level 1 Award in Maths: Working with mathematical skills, learners must successfully demonstrate their achievement of all learning outcomes and assessment criteria of the units as detailed in this qualification specification. Grades are not awarded.

When completing the certificate claim form, please use the Ofqual unit reference number (eg J/502/6345) to indicate which units the learners have achieved. The units in these qualifications cross over into the various Awards available and therefore do not follow the standard unit numbering of Unit 01, Unit 02 etc.

Learners who aren't successful can resubmit work within the registration period; however, a charge may apply. A Credit Certificate can be requested for learners who don't achieve their full qualification but who have achieved at least one whole unit, where appropriate.

The learning outcomes and assessment criteria for each unit are provided in Section 3 (page 19).

Progression opportunities

Learners who achieve these qualifications could progress to:

- NCFE Level 2 Certificate in Maths
- NCFE Level 2 Awards in Maths
- NCFE Functional Skills Qualification in Maths at Level 2
- GCSE Maths.

These qualifications may also be useful to those studying qualifications in the following sector(s):

- Preparation for Life and Work
- Arts, Media and Publishing
- Leisure, Travel and Tourism
- Health, Public Services and Care
- Business and Administration.

Learners can progress from an Award to a Certificate but centres must carefully consider which qualification they want to register the learner onto, as the registration fee will be applied for both qualifications.

Credit accumulation and transfer

Where a learner has already achieved a unit with credit, NCFE will recognise that prior learning and will allow the credit to be transferred onto a new qualification, provided that the units have the same Ofqual reference number.

All units in these qualifications are available for credit transfer.

Barred units and exemptions

These qualifications may contain barred units, equivalencies or exemptions. These will be identified in the summary for each unit..

Equivalent units

Some units have equivalent units identified against them. If a learner has achieved these units previously, they can use them towards achievement of these qualifications. However, these qualifications have no equivalent units identified.

Recognition of Prior Learning (RPL)

Centres may recognise prior learning at their discretion if they are satisfied that the evidence provided meets the requirements of a qualification. Where RPL is to be used extensively (for a whole unit or more), advice must be given by a qualified RPL Advisor.

Qualification dates

Regulated qualifications have review dates, operational end dates and certification end dates.

The qualification review date is the date by which we'll have carried out a review of the qualification. This date is shown on the qualification page on our website <u>www.ncfe.org.uk</u>.

We review qualifications up to 18 months before their review date, working with sector representatives to make any changes necessary to meet sector needs and to reflect recent developments. In most cases we'll then extend the qualification, and set a new review date. If we make the decision to withdraw a qualification, we'll set an operational end date (see below).

We'll post information relating to changes or extensions to qualifications on our website <u>www.ncfe.org.uk</u>, and centres approved to offer the qualification will be kept updated.

The operational end date will only show on the Register if we've made the decision to withdraw a qualification. After this date we can no longer accept candidate registrations.

The certification end date will only show on the Register once an operational end date has been set. After this date we can no longer process certification claims.

Staffing requirements

This section is intended to give some guidance on the experience and qualifications needed to deliver and assess these qualifications.

The guidance in this section is not intended to be exhaustive or definitive. Examples of relevant qualifications and occupational backgrounds are given as benchmarks. Other equivalent qualifications or backgrounds may also qualify prospective staff for delivery or assessment roles.

Centres must provide sufficient numbers of suitably experienced Assessors and Internal Moderators or Verifiers to ensure that qualifications are delivered effectively. NCFE cannot be held responsible for any complications that arise in the delivery or assessment process as a result of internal recruitment decisions. Staff recruitment should be made at the discretion of centres, and centres should be aware that it is their responsibility to ensure that all staff involved in the delivery and assessment of NCFE qualifications are suitably qualified.

Examples of relevant qualifications

- Diploma in Teaching in the Lifelong Learning Sector
- City & Guilds Further Education Teaching Certificate (7407)
- City and Guilds Adult Numeracy Subject Support (9484)
- City & Guilds Adult Numeracy Subject Specialist (9486)
- City & Guilds Scheme 9297 (Level 2 Certificate in Learning Support)
- Key Skills: Deliverer Award (Pitman)
- Key Skills: Trainer Award (Pitman).

Examples of work experience

Demonstrable experience of knowledge of the subject area.

Resource requirements

There are no specific resource requirements for these qualifications.

Support for learners

Learner's Evidence Tracking Log (LETL)

This gives information about these qualifications and can help learners keep track of their work. LETLs can be downloaded free of charge from our website <u>www.ncfe.org.uk</u>. You don't have to use the LETL – you can devise your own evidence-tracking documents instead.

Any documents you produce should allow learners to track their achievement against each required learning outcome and assessment criterion and include:

- information on the content, availability and location of NCFE's procedures and policies
- advice on support mechanisms for learners who are experiencing difficulties with their studies
- a mechanism for Assessors and Internal Moderators to authenticate evidence and achievement for each unit.

Support for centres

There are a number of documents available that you might find useful. These are available to download from our website <u>www.ncfe.org.uk</u> or can be requested from the Centre Support team on 0191 239 8000 or by emailing <u>service@ncfe.org.uk</u>.

Centre Support Guide

This explains everything you need to know, from how to apply to become an NCFE-approved centre, to registering your learners, claiming certificates for your learners and everything in between. Centres must seek approval to offer a qualification. Only learners from approved centres can be certificated.

Subject Maps

Our suite of subject maps showcase the qualifications we have available within each specialist sector and how they connect to each other. They demonstrate how you can plot routes for your learners at different levels from entry level right through to higher education or the workforce, with supporting qualifications along the way.

Fees and Pricing

This document is published in the spring for the forthcoming academic year.

Training and support

We can provide training sessions for Assessors and Internal Moderators. Bespoke subject-specific training is also available. For further information please contact our Quality Assurance team on 0191 239 8000.

Learning resources

Centres may opt to use the NCFE learning resources, which are pre prepared assessments containing short-answer and multiple-choice questions covering the learning outcomes and assessment criteria listed in this qualification specification.

Each unit has an assessment paper consisting of a number of sections corresponding to the number of learning outcomes in the unit. Each section contains a set number of questions. The pass mark for each assessment is detailed within the Mark Scheme.

Centres are free to choose the date, time and location of the assessment depending on the needs of their candidates. We recommend that if used, the assessment should be administered by centre staff under supervised conditions and will last for the time specified on the assessment paper, which includes reading time.

Centres should refer to the NCFE Regulations for the Conduct of External Assessment for guidance on administering the assessments under supervised conditions. These can be found on our website:

http://www.ncfe.org.uk/media/235253/Regulations%20for%20the%20Conduct%20of%20Extern al%20Assessments%20August%202012.pdf

The unit assessments and Mark Scheme are available in a Sample Assessment Papers pack and emailed to the qualification programme contact after candidate registration. Unit assessments can be set for completion at one time or centres may split the assessment into the individual sections.

If used, each assessment is intended to be summative. Assessors will mark completed assessments, either whole assessments or sections, using the Mark Scheme supplied by NCFE. Centres can award candidates a result of 'achieved' or 'not yet achieved'.

Where a candidate does not achieve a whole unit assessment, ie they don't achieve each section of the unit assessment, the assessment becomes formative. Assessors are required to provide feedback to the candidate detailing where further development of knowledge and/or skills is required. Candidates have the opportunity to be set additional work, allowing them to demonstrate achievement of all learning outcomes and assessment criteria in the unit. This additional work will be marked internally. Examples of additional evidence are listed as assessment guidance at the end of each unit.

To be awarded a whole unit assessment, candidates must successfully achieve the learning outcomes and assessment criteria specified in the unit.

All assessment results, and any additional evidence, if appropriate, will form part of the Portfolio of Evidence which is assessed and internally moderated by the centre and externally moderated by NCFE.

Links to National Skills Standards

The units in these qualifications have been mapped to the Adult Literacy (Core Curriculum) National Standards. For more detailed mapping please see Section 4 (page 53).

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Section 2 Assessment and moderation

How the qualification is assessed

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

The NCFE Level 1 Maths qualifications are internally assessed and externally moderated.

Centres may devise their own internal assessment based on the requirements set out in this qualification specification. Alternatively, centres may use the NCFE-set assessment papers.

Internal assessment

Each candidate is required to create a portfolio of evidence which demonstrates achievement of 100% of the learning outcomes and assessment criteria associated with each unit. Learning outcomes and assessment criteria specify what each candidate has to achieve.

The main pieces of evidence for the portfolio could include:

- Assessor observation completed observational checklists and related action plans
- witness testimony
- candidate's proof of work
- worksheets
- assignments/projects/reports
- record of oral and written questioning
- candidate and peer reports
- Recognition of Prior Learning (RPL).

You will also find a variety of assessment and moderation pro formas here: www.ncfe.org.uk/centre-information/assessment-and-moderation-pro-formas.

Assessment guidance is provided for each unit. Assessors can use other methods of assessment as long as they are valid and reliable and maintain the integrity of the assessment and of the standards required of these qualifications. Acceptable methods of assessment could be drawn from the list above.

Assessors must be satisfied that candidates have achieved all learning outcomes and assessment criteria related to the unit being assessed prior to deciding if candidates have been successful. Assessors are also responsible for supporting candidates through the assessment process.

For approval of methods of internal assessment other than portfolio building, please contact the Quality Assurance team on 0191 239 8000.

The assessment arrangements for these qualifications are in accordance with the criteria set out by the regulatory authorities.

What is moderation?

Moderation is the process by which we confirm that assessment decisions in centres are:

- made by competent and qualified Assessors
- the product of sound and fair assessment practice

recorded accurately and appropriately.

We do this through:

- internal moderation which you carry out
- external moderation which we carry out through our External Moderators who, by supporting you, will make sure that assessments meet nationally agreed standards and that your quality assurance systems continue to meet our centre approval criteria.

The Internal Moderator provides the vital link between the Assessors and the External Moderator and acts as the centre's quality assurance agent.

If you'd like to know more about the responsibilities of Assessors and Internal and External Moderators please refer to our Centre Support Guide.

Diversity, access and inclusion

Our qualifications and associated assessments are designed to be accessible, inclusive and nondiscriminatory. NCFE regularly evaluates and monitors the 6 diversity strands (gender, age, race, disability, religion, sexual orientation) throughout the development process as well as delivery, external moderation and external assessment processes of live qualifications. This ensures that positive attitudes and good relations are promoted, discriminatory language is not used and our assessment procedures are fully inclusive.

Candidates who require reasonable adjustments or special consideration should discuss their requirements with their Tutor, who should refer to our Reasonable Adjustments and Special Considerations policy for guidance.

For more information on the Reasonable Adjustments and Special Considerations policy please see our website <u>www.ncfe.org.uk/media/31656/Reasonable-Adjustments-Special-Considerations-Policy.pdf</u>.

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Section 3 Structure and content

This section provides details of the structure and content of these qualifications.

The unit summary provides an overview of each unit, including:

- the unit title
- the unit overview
- guided learning hours
- credit value
- ♦ level.

Following the unit summary there's detailed information for each unit containing:

- the unit title and number
- learning outcomes (the learner will) and assessment criteria (the learner can)
- guidance for developing assessment (an explanation of technical terms and the depth and breadth of coverage of the unit)
- assessment guidance (types of evidence for internal assessment).

The regulated unit number is indicated in brackets for each unit (eg M/100/7116).

For further information or guidance about these qualifications please contact our Research and Product Development team on 0191 239 8000.

Unit summaries

Working with whole numbers (Y/505/2740)

This unit aims to develop a good basic understanding of arithmetic skills and computation associated with working with whole numbers. The unit also helps to secure appropriate strategies for the use of both mental and assisted methods for calculation.

The unit provides a useful basis for further mathematical study at this level and learners should possess some form of mathematical attainment at Entry Level 3 before taking this unit. Learners can also progress to a range of other Level 1 units, but most usefully Working with fractions, Working with money and Working in decimals and percentages. They also have the ability to progress to the Level 2 unit Working with whole numbers.

Guided learning hours: 30

Credit value: 3

Level: 1

Working with fractions (D/505/2741)

This unit will develop skills and build confidence in basic computations with fractions and help the learner begin to work with fractions in practical activities.

Guided learning hours: 20

Credit value: 2

Level: 1

Working in decimals and percentages (H/505/2742)

This unit develops skills and builds confidence in basic computations involving decimals and percentages and will help the learner begin to work with decimals and percentages on paper and using a calculator.

Guided learning hours: 20

Credit value: 2

Level: 1

Working with measurement (K/505/2743)

In this unit the learner will develop and reinforce a basic level of knowledge and skills associated with working with time, distance and other common units of measurement.

Guided learning hours: 20

Credit value: 2

Level: 1

Working with 2D shapes and space (M/505/2744)

This unit aims to develop the learner's awareness of the properties and features of 2D shapes. The unit also looks at solving problems using mathematical properties of 2D shapes.

Guided learning hours: 10

Credit value: 1

Level: 1

Working with money (T/505/2745)

In this unit learners will develop and secure basic levels of computation and calculation related to sums of money. There is direct progression from this unit to the Level 2 unit Working with measurement, and an Entry 3 level of mathematics should provide a sufficient level of skill to serve as an entry requirement.

Guided learning hours: 10

Credit value: 1

Level: 1

Working with statistics (A/505/2746)

This unit will help learners to develop a basic level of awareness about handling data, retrieving data from a range of sources and to be able to make statements about data sets.

The learner will benefit from taking units such as Level 1 Working with whole numbers, Level 1 Working in decimals and percentages and Level 1 Working with fractions before taking this unit. The Level 2 unit Working with statistics offers progression from this unit, as would the Level 1 unit Working with probability.

Guided learning hours: 20

Credit value: 2

Level: 1

Working with probability (F/505/2747)

This unit will help learners to develop an understanding of probability and to state the likely outcome of events in mathematical terms. The learner will benefit from having taken Level 1 Working with whole numbers and Level 1 Working with statistics before taking this unit.

Guided learning hours: 20

Credit value: 2

Level: 1

Working with basic algebra and geometry (J/505/2748)

This unit aims to develop a basic understanding of some of the broader mathematics concepts and content, allowing the learner to progress to GCSE Mathematics. In this case, the learner is introduced to some algebra and geometry content and skills. This unit is designed to be taken as part of a wider Level 1 Mathematics qualification, where the learner has already built up and secured a range of mathematical knowledge.

Guided learning hours: 2

Credit value: 2

Level: 1

Working with mathematical skills (L/505/2749)

This unit will develop a basic understanding of some of the Skills Standards associated with Functional Skills, allowing the learner to progress to the Functional Skills Mathematics. This unit is designed to be taken as part of a wider Level 1 Mathematics qualification, where the learner has already built up and secured a range of mathematical knowledge.

Guided learning hours: 2

Credit value: 2

Level: 1

Working with whole numbers (Y/505/2740)

The learner will:

1 Understand the principles of working with whole numbers

The learner can:

- 1.1 Identify a digit's value by its place in a whole number
- 1.2 Work with the symbols for greater than and less than
- 1.3 Give examples of negative whole numbers in practical contexts

The learner will:

2 Be able to calculate using whole numbers

The learner can:

2.1 Find solutions using whole numbers by the following methods:

- mental
- written
- using a calculator

The learner will:

3 Understand numerical relationships

The learner can:

- 3.1 Recall multiplication facts up to 10 x 10
- 3.2 Identify multiples of 50, 100 and 1,000
- 3.3 Make connections with division facts
- 3.4 Identify square numbers up to 10 x 10

The learner will:

4 Be able to work out simple ratio and direct proportion

The learner can:

- 4.1 Work out simple ratio as the number of parts
- 4.2 Identify direct proportion as the same rate of increase or decrease

Working with whole numbers (Y/505/2740) (cont'd)

The learner will:

5 Be able to estimate when carrying out calculations using whole numbers

The learner can:

- 5.1 Round numbers to the nearest 1,000, 10,000, 100,000 and 1,000,000
- 5.2 Use estimation to predict answers

Working with whole numbers (Y/505/2740) (cont'd)

Assessment guidance

The focus of the unit is to enable the candidate to develop strategies for working with positive and negative whole numbers in a range of contexts.

Candidates are expected to be able to carry out calculations using whole numbers using mental and written methods and using a calculator. Candidates should be encouraged to show their workings for written methods or discuss their workings for mental methods or when using a calculator. When they've completed their mental and written methods candidates could check their calculations using a calculator.

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

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

Candidates must present accurate solutions for all calculations.

Types of evidence: candidate evidence

Assessment criteria: 1.1 – 1.3, 2.1

Additional information: Assessors could provide candidates with scenarios of practical contexts where negative whole numbers may be naturally encountered, eg temperature, money.

When they've completed their mental and written methods candidates could check their calculations using a calculator.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1

Additional information: Assessors could provide candidates with a range of calculations to complete using whole numbers.

Candidates must complete some calculations using mental methods – Assessors could use multiple-choice questions for this.

Candidates must complete some questions using written methods – Assessors could use shortanswer questions for this and candidates must show their workings.

Candidates could complete a separate assessment that requires them to complete a number of calculations using a calculator.

Working with whole numbers (Y/505/2740) (cont'd)

Types of evidence: candidate evidence

Assessment criteria: 2.1, 3.1 – 3.4

Additional information: Assessors could provide candidates with scenarios relating to multiplication and division facts to enable them to demonstrate their understanding of numerical relationships, for example recognising multiples of 2 to 9, up to 100; knowing square numbers up to 10 x 10, etc.

When they've completed their mental and written methods candidates could check their calculations using a calculator.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1, 4.1, 4.2

Additional information: Assessors could provide candidates with a range of everyday scenarios that require simple proportion to be calculated, for example scaling recipes up and down, diluting drinks, thinning paint, etc.

Candidates could check their completed calculations with a calculator.

Assessors could develop a summative, multiple-choice or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1, 5.1, 5.2

Additional information: Assessors should provide a range of scenarios that require candidates to demonstrate estimation or rounding using whole numbers, for example estimating distances or rounding up attendance figures at a sporting or musical event.

Candidates should be able to discuss the degree of accuracy required when rounding or estimating with whole numbers.

Candidates should also be able to determine if an answer is sensible or not.

The types of evidence listed above are for guidance purposes only. Within candidates' portfolios, other types of evidence are acceptable if all learning outcomes and assessment criteria are covered and if the evidence generated can be internally and externally moderated. For approval of methods of internal assessment other than portfolio building, please contact the Quality Assurance team at NCFE.

Working with fractions (D/505/2741)

The learner will:

1 Be able to order and compare basic fractions

The learner can:

- 1.1 Compare basic fractions and identify:
 - smallest
 - ♦ largest
 - equivalence
- 1.2 Simplify basic fractions into an equivalent form, working in appropriate denominators

The learner will:

2 Be able to order and compare improper fractions and mixed numbers

The learner can:

- 2.1 Change improper fractions into mixed numbers
- 2.2 Change mixed numbers into improper fractions
- 2.3 Compare improper fractions and identify:
 - smallest
 - ♦ largest

The learner will:

3 Be able to find parts of whole numbers

The learner can:

- 3.1 Find fractions of whole numbers where the whole number is a:
 - number
 - sum of money
 - quantity
 - measurement

The learner will:

4 Be able to recognise equivalences across fractions, percentages and decimals

The learner can:

- 4.1 Convert fractions into percentages
- 4.2 Identify percentage and decimal equivalences of fractions
- 4.3 Use a calculator to state fractions as a decimal

Working with fractions (D/505/2741) (cont'd)

Assessment guidance

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

Candidates are expected to be able to carry out calculations using fractions, improper fractions and mixed numbers using written methods. Candidates should be encouraged to show their workings to demonstrate their grasp of the underpinning knowledge and skills required when working with fractions, improper fractions and mixed numbers.

Candidates will use a calculator in learning outcome 4 to convert fractions to decimals.

Candidates must present accurate solutions to the calculations.

Types of evidence: candidate evidence

Assessment criteria: 1.1, 1.2

Additional information: candidates should be able to compare fractions and order them in terms of size. Assessors should provide fractions in a range of denominations for candidates to simplify.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1 – 2.3

Additional information: candidates should be able to compare improper fractions and order them in terms of size. Candidates should be given a range of improper fractions to convert to mixed numbers and a range of mixed numbers to convert to improper fractions. Candidates should be able to check their conversion is correct.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 3.1

Additional information: Assessors could provide scenarios which allow candidates to demonstrate their knowledge and skills in working with fractions. The scenarios should include everyday familiar contexts that use numbers, sums of money, quantities and measurements.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Working with fractions (D/505/2741) (cont'd)

Types of evidence: candidate evidence

Assessment criteria: 4.1 – 4.3

Additional information: this learning outcome allows candidates to demonstrate their skills and knowledge in working with fractions and converting them to percentages and decimals. Candidates should be able to recognise equivalences between percentages and decimals and fractions.

Candidates may use a calculator to state fractions as decimals.

Assessors could develop a summative multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

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Working with decimals and percentages (H/505/2742)

The learner will:

1 Know how to write, order and compare decimals and percentages

The learner can:

1.1 Identify the value of a digit by its place in numbers with up to 3 decimal places1.2 Order and compare decimals and percentages by size

The learner will:

2 Be able to perform simple calculations using decimals

The learner can:

2.1	Add and subtract numbers of up to 2 decimal places
2.2	Multiply and divide numbers of up to 2 decimal places

- 2.3 Multiply and divide decimals by 10 and 100
- 2.4 Carry out rounding to a whole number and to 2 decimal places

The learner will:

3 Be able to perform simple calculations using percentages

The learner can:

- 3.1 Identify percentages as the number of parts in 100
- 3.2 Calculate simple percentage parts of quantities and measurements
- 3.3 Calculate whole quantities and measurements from simple percentage parts
- 3.4 Calculate simple percentage increases and decreases

The learner will:

4 Be able to use a calculator to work with decimals and percentages

The learner can:

- 4.1 Use a calculator to perform calculations involving decimals
- 4.2 Use a calculator to find percentages
- 4.3 Use a calculator to perform calculations involving simple percentages

Working with decimals and percentages (H/505/2742) (cont'd)

Assessment guidance

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

Candidates are expected to be able to carry out calculations with decimals and percentages using written methods in the first instance. Candidates should be encouraged to show their workings to demonstrate their grasp of the underpinning knowledge and skills required when working with decimals and percentages.

Candidates will use a calculator in learning outcome 4 to work with decimals and percentages.

To encourage development of skills using mental methods candidates could complete calculations and provide oral responses to Assessors.

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

Candidates must present accurate solutions to their calculations.

Types of evidence: candidate evidence

Assessment criteria: 1.1, 1.2

Additional information: Assessors could provide candidates with a range of decimal numbers to work with. Candidates must correctly identify the value of digits and be able to present the information orally or in written format. Candidates can demonstrate their ability to work with decimal numbers by correctly ordering and comparing decimals and percentages by size.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1 – 2.4

Additional information: Assessors could provide candidates with a range of calculations using decimal numbers. Candidates' calculations should be accurate and should be completed using a written method.

Candidates could use their solutions to calculations completed in 2.1 - 2.3 and round them to whole numbers and to 2 decimal places.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Working with decimals and percentages (H/505/2742) (cont'd)

Types of evidence: candidate evidence

Assessment criteria: 3.1 – 3.4

Additional information: Assessors could provide candidates with a range of calculations using percentages. Candidates' calculations should be accurate and should be completed using a written method.

Candidates should be able to calculate simple percentages from a range of quantities and measurements and work out the whole quantities and measurements from given percentages.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 4.1 – 4.3

Additional information: Assessors could provide a range of questions to allow candidates to demonstrate the knowledge and ability to perform calculations involving decimals and percentages.

Candidates are expected to be able to use a calculator to find percentages as well as performing calculations.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

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Working with measurement (K/505/2743)

The learner will:

1 Be able to work with time using the 12-hour and 24-hour formats

The learner can:

- 1.1 Tell the time using the 12- and 24-hour format
- 1.2 Use straightforward timetables
- 1.3 Convert different units of time
- 1.4 Add and subtract times in hours and minutes
- 1.5 Use common date formats

The learner will:

2 Be able to work with common units and instruments used in measurement

The learner can:

- 2.1 Measure length in metric units with commonly used instruments
- 2.2 Measure weight in metric units
- 2.3 Read temperatures above and below zero in degrees Celsius
- 2.4 Measure and compare capacity using metric units

The learner will:

3 Be able to calculate distance

The learner can:

- 3.1 Use appropriate units for distance
- 3.2 Use mileage charts
- 3.3 Measure distances on a map, using a scale

The learner will:

4 Be able to carry out calculations using common units of measure within the same system

The learner can:

- 4.1 Convert between different metric units of:
 - ♦ length
 - weight
 - capacity

Working with measurement (K/505/2743) (cont'd)

Assessment guidance

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

Candidates are expected to be able to work with the 12-hour and 24-hour clock formats. Candidates will demonstrate their ability to use common instruments of measure to calculate distance, weight, volume and temperature.

When performing calculations candidates should use written methods to demonstrate their ability to work with units of time or common measures.

Assessors may provide opportunities to develop their mental methods for performing calculations although it's not a specific requirement of this unit.

Candidates must ensure that all calculations and measurements are accurate.

Types of evidence: candidate evidence

Assessment criteria: 1.1 – 1.5

Additional information: candidates should be familiar with the 12- and 24-hour formats. Assessors should ensure that candidates have access to clocks that show both formats.

Candidates will use their knowledge of reading 12- and 24-hour time formats to read simple timetables and convert between different units of time.

Assessors should ensure that common timetables are available for use, for example bus and train timetables, class timetables.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1 – 2.4

Additional information: candidates should be familiar with the common units of measure and using common instruments of measurement. Assessors should ensure that appropriate instruments of measurement are made available to learners.

Candidates should be familiar with positive and negative numbers.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Working with measurement (K/505/2743) (cont'd)

Types of evidence: candidate evidence

Assessment criteria: 3.1 – 3.3

Additional information: candidates will use maps and mileage charts to enable them to complete the assessment criteria.

Assessors should ensure that maps selected will have a simple scale that is relevant for Level 1 candidates.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 4.1

Additional information: candidate evidence for this learning outcome could be generated when completing learning outcome 2.

Candidates must demonstrate their ability and confidence in working with different metric units of length, weight and capacity by converting between different units, eg from millilitres (ml) to litres (l), centimetres (cm) to metres (m), etc.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

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Working with 2D shapes and space (M/505/2744)

The learner will:

1 Understand the properties and features of 2D shapes

The learner can:

- 1.1 Use a protractor to measure and compare angles including:
 - right angles
 - angles on straight lines
 - angles within 2D shapes
- 1.2 Identify the properties of the following:
 - regular 2D shapes
 - ♦ 2D shapes featuring parallel lines
- 1.3 Identify lines of symmetry in 2D shapes
- 1.4 Explain what is meant by lines of symmetry

The learner will:

2. Be able to carry out measurements and calculations of 2D shapes

The learner can:

- 2.1 Work out the perimeter of 2D shapes
- 2.2 Work out the area of 2D shapes, using correct notation

The learner will:

3 Be able to solve problems using mathematical properties of regular 2D shapes

The learner can:

- 3.1 Draw 2D shapes in different orientations using grids
- 3.2 Identify where shapes tessellate if applicable

Working with 2D shapes and space (M/505/2744) (cont'd)

Assessment guidance

The focus of the unit is to enable candidates to develop strategies for working with 2-dimensional (2D) shapes and space.

Candidates will also develop their knowledge of basic mathematical terms including:

- angles
- right angles
- properties
- parallel lines
- lines of symmetry
- perimeter
- area
- tessellation.

Assessors must ensure that candidates have access to protractors, rulers and grid paper to enable them to complete the requirements of this unit.

When performing calculations candidates should use written methods to demonstrate their ability to work with units of time or common measures.

Candidates must ensure that all calculations and measurements are accurate.

Types of evidence: candidate evidence

Assessment criteria: 1.1 – 1.4

Additional information: candidates should be familiar with using a protractor and measuring angles of 2D shapes.

Assessors should provide a range of regular 2D shapes and 2D shapes with parallel lines for candidates to work with.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1, 2.2

Additional information: candidates should be familiar with working with and measuring 2D shapes.

Candidates will need to be familiar with the formula required to calculate the area of a 2D shape.

Candidates should present calculations in written format showing their workings to demonstrate achievement of the assessment criteria.

Assessors should provide a range of regular 2D shapes and 2D shapes with parallel lines for candidates to work with.

Working with 2D shapes and space (M/505/2744) (cont'd)

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 3.1, 3.2

Additional information: candidates should be familiar with working with 2D shapes.

Candidates will use grids to draw 2D shapes in different orientations. This may be completed by drawing by hand or electronically. If using an online package, candidates may utilise any 'snap to grid' functionality available.

Candidates should use a variety of 2D shapes, including those which don't tessellate, to ensure they've fully understood the concept of tessellation.

Assessors should provide a range of regular 2D shapes and 2D shapes with parallel lines for candidates to work with.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

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Working with money (T/505/2745)

The learner will:

1 Know how to place money in terms of value

The learner can:

- 1.1 Identify the value of digits in sums of money by their place
- 1.2 Order and compare sums of money
- 1.3 Round up sums of money

The learner will:

2 Be able to carry out calculations with money

The learner can:

- 2.1 Calculate sums of money using:
 - addition
 - subtraction
 - multiplication
 - division
- 2.2 Convert sums of money between figures and words
- 2.3 Use a calculator to check answers to calculations

Working with money (T/505/2745) (cont'd)

Assessment guidance

The focus of the unit is to enable the candidate to develop strategies for working with money.

Candidates could use pounds sterling as the currency to work with in this unit, but if a candidate is more familiar with an alternative currency this may be used instead.

Candidates are expected to be able to carry out calculations using basic principles of addition, subtraction, multiplication and division and as such will benefit from completing the Level 1 Working with whole numbers unit prior to undertaking this unit.

Candidates should have access to a calculator to complete assessment criterion 2.3.

Candidates should be encouraged to show their workings in writing for calculations completed in this unit.

Candidates may also benefit from completing calculations using mental methods to develop their abilities in this skill, although it's not a requirement of the unit.

Candidates must present accurate solutions to their calculations.

Types of evidence: candidate evidence

Assessment criteria: 1.1 – 1.3

Additional information: candidates should be familiar with working with money and the common currencies available to them.

Candidates must order and compare sums of money and it's suggested that the values range from part pounds, eg 87p, to whole pounds, eg £32, and whole and part pounds, eg £26.43.

Candidates should round sums of money up to whole pounds, to the nearest £5, £10, £50 and \pm 100.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1 – 2.3

Additional information: candidates should be familiar with working with money and the common currencies available to them.

Candidates must complete a range of calculations involving addition, subtraction, multiplication and division. Candidates must work with whole numbers and with decimals in their calculations.

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

Working with money (T/505/2745) (cont'd)

Once candidates have completed their calculations by the written method they should check their calculations using a calculator.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

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Working with statistics (A/505/2746)

The learner will:

1 Be able to extract and interpret information

The learner can:

- 1.1 Explain how the following provides information:
 - title
 - labels
 - ♦ key
 - axis
- 1.2 Read a scale on an axis
- 1.3 Find and interpret information from:
 - tables
 - diagrams
 - pictograms
 - Extract and interpret information from:
 - bar charts
 - pie charts
 - single line graphs

The learner will:

1.4

2 Be able to work with and present discrete data

The learner can:

- 2.1 Present data using appropriate method
- 2.2 Organise data using appropriate method

The learner will:

3 Be able to establish features of a data set

The learner can:

- 3.1 Calculate the mean for a set of data
- 3.2 Calculate the range for a set of data

Working with statistics (A/505/2746) (cont'd)

Assessment guidance

The focus of the unit is to enable the candidate to develop strategies for working with statistics and handling data.

Candidates are expected to be able to find, extract and interpret information from a range of sources and should understand the types of information each source can provide.

Assessors should provide information presented in tables, diagrams, pictograms, bar charts, pie charts and single line graphs to enable candidates to complete assessment criteria 1.3 and 1.4.

Assessors should provide a range of data to work with and candidates will be able to choose the most appropriate method to organise and present this data.

Types of evidence: candidate evidence

Assessment criteria: 1.1 – 1.4

Additional information: candidates should be given a range of sources of information in a variety of formats to enable them to demonstrate their ability to find, extract and interpret the information.

Assessors should provide a variety of information that could relate to everyday contexts that the candidates may be familiar with, for example catalogues, holiday brochures, sales figures, temperature charts, stock checks or traffic flow surveys.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1, 2.2

Additional information: candidates should demonstrate their ability to organise and present data using the appropriate method. Candidates will have to consider the type of data that they have been presented with and decide on the method of organising and presenting the data.

Assessors should provide a range of information that requires candidates to organise and present different sets of data in a variety of appropriate ways. This will allow candidates to demonstrate their understanding and ability at organising and presenting data. A minimum of 3 sets of data should be provided.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 3.1, 3.2

Working with statistics (A/505/2746) (cont'd)

Additional information: Candidates could use the information provided for learning outcome 2 to aid coverage of this learning outcome. Alternatively Assessors could provide new data sets for candidates to work with. To ensure that candidates demonstrate complete coverage of this learning outcome, a minimum of 3 different sizes of data sets should be used.

Candidates should ensure that the mean and range solutions provided are accurate.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

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Working with probability (F/505/2747)

The learner will:

1 Understand the basic concepts and terminology associated with probability

The learner can:

- 1.1 Define probability
- 1.2 Explain how the probability of an event is measured
- 1.3 Describe how probability is determined
- 1.4 Identify the likelihood of different events happening

The learner will:

2 Be able to establish the probability of an event

The learner can:

- 2.1 Collect data about a topic
- 2.2 Display the data in an appropriate way
- 2.3 Calculate the probability of an event
- 2.4 Express the probability of the event

Working with probability (F/505/2747) (cont'd)

Assessment guidance

The focus of the unit is to enable the candidate to develop strategies for working with probability and handling data.

Candidates are expected to understand the basic concepts and terminology associated with probability and establish the probability of an event occurring.

Assessors should provide a range of information to support candidates in the completion of this unit.

Types of evidence: candidate evidence

Assessment criteria: 1.1 – 1.4

Additional information: the assessment criteria may be achieved through group/class discussions or individual discussions with Assessors or through a short report or presentation.

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

Assessors 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 holiday; probability of one person in a random group having a birthday in a specific month, etc.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1 – 2.4

Additional information: candidates should collect data about a topic of their choosing in a context that is familiar to them. Assessors should ensure that sufficient data is collected to ensure that calculations are meaningful.

Candidates will display the data collected in an appropriate way and will benefit from completing the Level 1 Working with statistics unit before undertaking this unit.

The probability of an event occurring should be calculated based on the data gathered. Candidates should ensure that the result is meaningful and expressed correctly, ie between 0 and 1.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Working with probability (F/505/2747) (cont'd)

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Working with basic algebra and geometry (J/505/2748)

The learner will:

1 Be able to work with straightforward algebraic expressions

The learner can:

- 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

The learner will:

2 Be able to work with straightforward geometric concepts

The learner can:

2.2

- 2.1 Identify the angle properties of parallel lines and intersecting lines
 - Find missing angles in:
 - quadrilaterals
 - triangles

Working with basic algebra and geometry (J/505/2748) (cont'd)

Assessment guidance

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

Candidates are expected to be able to carry out calculations using basic algebraic expressions and using common rules for working with them.

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

Candidates should use a written method and show their workings for both learning outcomes.

Candidates must present accurate solutions to their calculations.

Types of evidence: candidate evidence

Assessment criteria: 1.1 – 1.3

Additional information: Assessors could provide candidates with a range of straightforward algebraic expressions for candidates to work with.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

Types of evidence: candidate evidence

Assessment criteria: 2.1, 2.2

Additional information: Assessors could provide a range of diagrams consisting of parallel and intersecting lines for candidates to work with.

A range of basic quadrilaterals and triangles should be provided for candidates to complete assessment criterion 2.2. To aid calculation of missing angles, Assessors should ensure that the sizes of some angles are provided.

Assessors could develop a summative, multiple-choice and/or short-answer question paper which covers the requirements of the assessment criteria.

The types of evidence listed above are for guidance purposes only. Within candidates' portfolios, other types of evidence are acceptable if all learning outcomes and assessment criteria are covered and if the evidence generated can be internally and externally moderated. For approval of methods of internal assessment other than portfolio building, please contact the Quality Assurance team at NCFE.

Working with mathematical skills (L/505/2749)

The learner will:

1 Be able to work with mathematical skills to solve straightforward practical problems

The learner can:

- 1.1 Describe straightforward, practical mathematical problems
- 1.2 Interpret the information provided to tackle the problem
- 1.3 Work with given mathematical skills to find solutions
- 1.4 Use checking procedures to ensure accurate outcomes
- 1.5 Communicate solutions and results clearly and accurately

Working with mathematical skills (L/505/2749) (cont'd)

Assessment guidance

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

The candidate will be able to draw on the skills, knowledge and understanding developed throughout the Level 1 Maths units when undertaking this unit. They will find the Level 1 Working with whole numbers, Level 1 Working with 2D shapes and space, Level 1 Working with measurement, Level 1 Working with statistics and Level 1 Working with probability units particularly useful prerequisites to this unit.

Candidates will be expected to use the written method when solving problems and show all workings completed throughout the unit.

Candidates may use a calculator to check their solutions to problems.

Candidates must present accurate solutions to their calculations.

Types of evidence: candidate evidence

Assessment criteria: 1.1 – 1.5

Additional information: Assessors could provide candidates with a range of straightforward, practical problems that may be solved working with the mathematical skills developed.

The problems should be within contexts familiar to candidates whilst allowing the demonstration of mathematical skills and knowledge. Candidates are expected to find or calculate some of the necessary information to enable them to find a solution to the problem.

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

Assessors could develop a summative assessment paper which allows full coverage and demonstration of the necessary skills and knowledge to find the solutions to the problem.

The types of evidence listed above are for guidance purposes only. Within candidates' portfolios, other types of evidence are acceptable if all learning outcomes and assessment criteria are covered and if the evidence generated can be internally and externally moderated. For approval of methods of internal assessment other than portfolio building, please contact the Quality Assurance team at NCFE.

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Section 4 Links to National Skills Standards

We've mapped the NCFE Level 1 Maths units to the Adult Literacy Curriculum (Core Curriculum) at Level 1.

The table below shows how the units cover the Core Curriculum at Level 1.

NCFE unit number/title	Core Curriculum mapping
Working with whole numbers (Y/505/2740)	Adult Numeracy Core Curriculum, Level 1, Whole Numbers, N1/L1.1, N1/L1.2, N1/L1.3, N1/L1.4, N1/L1.5, N1/L1.6, N1/L1.7, N1/L1.8, N1/L1.9
Working with fractions (D/505/2741)	This unit covers parts of Fractions, decimals and percentages at Level 1 of the Adult Numeracy Core Curriculum: N2/L1.1; N2/L1.2; N2/L1.3; N2/L1.11, coverage is designed to be 100%
Working with decimals and percentages (H/505/2742)	This unit covers parts of Fractions, decimals and percentages at Level 1 of the Adult Numeracy Core Curriculum: N2/L1.4 to 11 where coverage is designed to be 100%
Working with measurement K/505/2743)	This unit covers parts of Fractions, decimals and percentages at Level 1 of the Adult Numeracy Core Curriculum: MSS1/L1.2; MSS1/L1.3; MSS1/L1.4; coverage is designed to be 100%
Working with 2D shapes and space (M/505/2744)	Adult Numeracy Core Curriculum, Level 1, Measurement, Space and Shape, MSS2/L1.1 MSS2/L1.2
Working with money (T/505/2745)	This unit covers parts of Fractions, decimals and percentages at Level 1 of the Adult Numeracy Core Curriculum: MSS1/L1.1, coverage is designed to be 100%
Working with statistics (A/505/2746)	This unit is designed to cover the Adult Numeracy Core Curriculum, Handling Data – Data and Statistical Measures, HD1/L1.1, HD1/L1.2, HD1/L1.3, HD1/L1.4 (complete coverage)
Working with probability (F/505/2747)	This unit is designed to cover the Adult Numeracy Core Curriculum, Handling Data – Probability, HD2/L1.1 (coverage is designed to be 100%)

NCFE unit number/title	Other curricula mapping
Working with basic algebra and geometry	There is a relationship with GSCE (Foundation
(J/505/2748)	Tier) Algebra and Geometry content descriptors,
	content and skills.
	Algebra: Aa (100%); Ac (20%)
	Geometry: GMb (20%)
Working with mathematical skills	There is a relationship with the Skills Standards
(L/505/2749)	associated with Functional Skills Mathematics at
	Level 1

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Section 5 General information

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Equal opportunities

NCFE fully supports the principle of equal opportunities and opposes all unlawful or unfair discrimination on the grounds of ability, age, colour, culture, disability, domestic circumstances, employment status, gender, marital status, nationality, political orientation, racial origin, religious beliefs, sexual orientation and social background. NCFE aims to ensure that equality of opportunity is promoted and that unlawful or unfair discrimination, whether direct or indirect, is eliminated both in its own employment practices and in access to its qualifications. A copy of NCFE's Equal Opportunities Policy is available on request.

Data protection

NCFE is registered under the Data Protection Act and is committed to maintaining the highest possible standards when handling personal information.

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* To continue to improve our levels of customer service, telephone calls may be recorded for training and quality purposes.