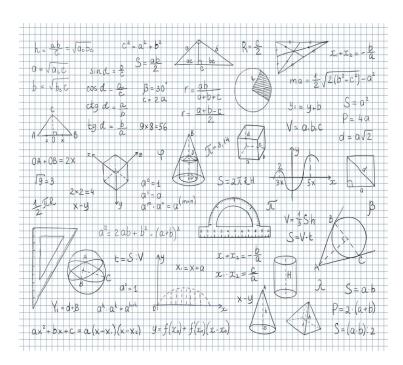


Functional Skills Qualification in Mathematics

Level 2



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About the Qualification

Title	Open Awards Level 2 Functional Skills Qualification in Mathematics	
QAN	603/4806/9	
Sector	14.1 Foundations for Learning and Life	
Level	Level 2	
Funding	Please click here for more information	
Pricing Information		
Review Date 31/07/2025		

Ofqual Purpose	Prepare for Further Learning or Training and/or Develop Knowledge and/or Skills in a Subject Area
Ofqual Sub- Purpose	Develop Knowledge and/or Skills in a Subject Area

About Functional Skills Qualifications

Functional Skills qualifications should provide reliable evidence of a learner's achievements against demanding content that is relevant to the workplace. They need to provide assessment of learners' underpinning knowledge, as well as their ability to apply this in different contexts. They also need to provide a foundation for progression into employment or further technical education and develop skills for everyday life. In some contexts, Functional Skills qualifications will also play a part in the Government's accountability systems.

A key aim for Functional Skills Mathematics specifications is to enable the learner to demonstrate a sound grasp of mathematical skills at the appropriate level and be able to apply mathematical thinking effectively to solve problems successfully in the workplace and in other real life situations.

Purpose of Functional Skills Mathematics for Level 1 and Level 2: a qualification for work, study and life. Achievement of the qualification demonstrates a sound grasp of mathematical skills at the appropriate level and the ability to apply mathematical thinking effectively to solve problems successfully in the workplace and in other real life situations.

Achievement of the Qualification

To achieve this qualification, learners must successfully pass at Level 2:

 One externally set and marked assessment in Mathematics (including a calculator and non-calculator section).

A learner is awarded a 'pass' or 'fail' result for the qualification.

Qualification Time	
Total Qualification Time (TQT)	60
Guided Learning (hours)	55

Age Range and Restrictions:	
Pre -16	✓
16 – 18	✓
19+	✓
Any other restrictions specific to the qualification(s)	None

Any specified entry requirements

There are no restrictions on learner entry to these qualifications. However, it is recommended that learners undertake a comprehensive initial diagnostic assessment to ensure that they are following an appropriate learning programme leading to a summative assessment.

Assessment Method

Achievement of the Functional Skills Mathematics qualifications is through successful completion of a task-based assessment at Level 2 which are:

 Externally-set and externally marked assessment paper, including a calculator and non-calculator section.

Sample assessments are available on the Portal and can be accessed by the Assessment Administrator contact at your provider. Sample assessments cover both paper-based and on-screen modes of delivery.

In addition, there are practice mathematics questions for the functionality utilised for on-screen assessments and demonstration videos of how to use this functionality. Providers must ensure that learners have utilised these question types in advance of sitting an on-screen assessment to ensure they are familiar with the assessment platform and potential question types.

The assessment tasks are based on real-life contexts. Contexts may be based on:

- Work and education
- Community, citizenship and environment
- Family, home and social issues

The amount of time allocated for the assessment is 2 hours.

The assessment is split into the following sections:

- Section A: 30 minutes (non-calculator) worth 25% of the marks
- Section B: 1 hour and 30 minutes (calculator) worth 75% of the marks

All assessments must be taken under controlled assessment conditions. Further guidance can be found in Open Awards' Instructions for Conducting Controlled Assessments or Open Awards' Instructions for Conducting Controlled Assessments Remotely available via the Portal.

The assessment can be carried out by either on-screen or by paper-based modes of delivery.

On-screen assessments are delivered on demand via the XAMS assessment system.

Paper-based assessments are printed by Open Awards and sent to the provider in line with the <u>published assessment calendar</u>.

Completed paper based assessment papers must be returned according to the instructions provided by Open Awards within the specified timeframe.

All assessments are marked within the XAMS assessment platform by Open Awards markers, and results are released within the XAMS assessment platform.

When completing the non-calculator section, learners will **not** be allowed access to external aids in relation to calculations, including traditional calculators and smartphones, watches and other electronic devices.

When completing the calculator section, learners will be allowed to make use of a non-scientific calculator (for paper-based and online assessments) or the on-screen calculator (online assessment). The use of other electronic devices, including phones and smart-watches are not allowed at any time during the assessment.

Reasonable adjustments and special considerations may be required for individual learners to enable them to undertake assessments fairly. Please see our Reasonable Adjustments and Special Considerations Policy available on the-portal for details on how to apply for and implement these measures.

Subject Content

Open Awards Level 2 Functional Skills Qualification in Mathematics supports learners to apply their mathematical skills, through appropriate reasoning and decision making, to solve realistic problems of increasing complexity.

Learners should be:

- Introduced to new areas of life and work so that they are exposed to concepts and problems which, while not of immediate concern, may be of value in later life:
- Enabled to develop an appreciation of the role played by mathematics in the world of work and in life generally;
- Able to use these skills autonomously, applying them to a range of formal and informal contexts, in the workplace and in real life.

Scope of Study

The Scope of Study (SoS) for Mathematics, including the SoS references from the DfE Subject Content is included below:

Use of number and the number system: Learners at Level 2 are expected to be able to:

- use numbers of any size;
- read, write and make use of positive and negative integers of any size;
- use, order and compare integers, fractions, decimals, percentages and ratios as well as recognise the value of a digit in any whole or decimal number;
- use numerical and spatial patterns for a purpose;
- calculate with, and convert between, numbers written as fractions, decimals, percentages and ratios.

Level 2 - Using numbers and the number decimals and percentages	per system – whole numbers, fractions,			
SoS1. Read, write, order and compare positive and negative numbers of any				
size	strategies to check answers including estimation and approximation			
SoS3. Evaluate expressions and make SoS4. Identify and know the				
substitutions in given formulae in words	equivalence between fractions,			
and symbols	decimals and percentages			
SoS5. Work out percentages of	SoS6. Calculate percentage change			
amounts and express one amount as a	(any size increase and decrease), and			
percentage of another	original value after percentage change			
SoS7. Order, add, subtract and	SoS8. Express one number as a			
compare amounts or quantities using	fraction of another			

proper and improper fractions and mixed numbers	
SoS9. Order, approximate and compare decimals	SoS10. Add, subtract, multiply and divide decimals up to three decimal places
SoS11. Understand and calculate using ratios, direct proportion and inverse proportion	SoS12. Follow the order of precedence of operators, including indices

Use of common measures, shape and space: Learners at Level 2 are expected to be able to:

- handle relationships between measurements of various kinds;
- use angles and coordinates when involving position and direction;
- make use of geometric properties in calculations with 2-D and 3-D shapes and understand the relationships between them.

Level 2 - Using common measures, sh	ape and space
SoS13. Calculate amounts of money,	SoS14. Convert between metric and
compound interest, percentage	imperial units of length, weight and
increases, decreases and discounts	capacity using a) a conversion factor
including tax and simple budgeting	and b) a conversion graph
SoS15. Calculate using compound	SoS16. Calculate perimeters and areas
measures including speed, density and	of 2-D shapes including triangles and
rates of pay	circles and composite shapes including
	non-rectangular shapes (formulae given
	except for triangles and circles)
SoS17. Use formulae to find volumes	SoS18. Calculate actual dimensions
and surface areas of 3-D shapes	from scale drawings and create a scale
including cylinders (formulae to be	diagram given actual measurements
given for 3-D shapes other than	
cylinders)	
SoS19. Use coordinates in 2-D, positive	SoS20. Understand and use common 2-
and negative, to specify the positions of	D representations of 3-D objects
points	
SoS21. Draw 3-D shapes to include	SoS22. Calculate values of angles
plans and elevations	and/or coordinates with 2-D and 3-D
	shapes

Handle information and data: learners at Level 2 are expected to be able to:

- construct, interpret and evaluate a range of statistical diagrams;
- calculate and interpret probabilities;
- calculate, analyse, compare and interpret appropriate data sets, tables, diagrams and statistical measures such as common averages (mean, median, mode) and spread (range);
- use statistics to compare sets of data;
- identify patterns and trends from data as well as recognise simple correlation.

Level 2 - Handling information and data

- SoS23. Calculate the median and mode of a set of quantities
- SoS24. Estimate the mean of a grouped frequency distribution from discrete data
- SoS25. Use the mean, median, mode and range to compare two sets of data
- SoS26. Work out the probability of combined events including the use of diagrams and tables, including two-way tables
- SoS27. Express probabilities as fractions, decimals and percentages
- SoS28. Draw and interpret scatter diagrams and recognise positive and negative correlation

Solving mathematical problems and decision making

Learners are expected to be able to use the knowledge and skills in the Functional Skills Mathematics Level 2 Subject Content listed above to recognise and obtain a solution or solutions to a complex problem.

A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes.

Individual problems are based on a combination of the knowledge and/or skills from the mathematical content areas (number and the number system; measures, shape and space; information and data).

At this level, it is expected that the learner will be able to address individual problems some of which draw upon a combination of all three mathematical areas and require students to make connections between those content areas.

Attributes, of which one or more may be present in a single task to consider it as problem solving, are listed below:

- A. Tasks that have little or no scaffolding: there is little guidance given to the learner beyond a start point and a finish point. Questions do not explicitly state the mathematical process (es) required for the solution.
- B. Tasks that provide for multiple representations, such as the use of a sketch or a diagram as well as calculations.
- C. The information is not given in mathematical form or in mathematical language; or there is a need for the results to be interpreted or methods evaluated, for example, in a real-world context.
- D. Tasks have a variety of techniques that could be used.

- E. The solution requires understanding of the processes involved rather than just application of the techniques.
- F. The task requires two or more mathematical processes or may require different parts of mathematics to be brought together to reach a solution.

Learners are expected to be able to:

- Read, understand, and use mathematical information and mathematical terms;
- Address individual problems as described above;
- Use knowledge and understanding to a required level of accuracy;
- Identify suitable operations and calculations to generate results;
- Analyse and interpret answers in the context of the original problem;
- Check the sense and reasonableness of answers;
- Present and explain results clearly and accurately demonstrating reasoning to support the process and show consistency with the evidence presented.

The context of individual problems at this level will require interpretation and analysis in order for the learner to be able to identify and carry out appropriate mathematical process(es) independently.

Open Awards Level 2 Functional Skills Qualification in Mathematics

Learning aims and outcomes	Scope of Study	Task Coverage	Problem solving	Underpinning skills	Task details	Assessment structure and timings
	SoS1. Read, write, order and compare positive and negative numbers of any size SoS2. Carry out calculations with numbers up to one million including strategies to check answers including estimation and approximation SoS3. Evaluate expressions and make substitutions in given formulae in words and symbols SoS4. Identify and know the equivalence between fractions, decimals and percentages SoS5. Work out percentages of amounts and express one amount as a percentage of another	Part A Sample of SoS	9 marks	6 marks	No calculator permitted/ on-screen calculator disabled	Section A 30 minutes
Demonstrate mathematical skills to solve realistic problems of increasing complexity through reasoning and decision making. Familiarise self with concepts and problems that apply to life and work. Understand the role played by mathematics in the world of work and in life generally.	SoS6. Calculate percentage change (any size increase and decrease), and original value after percentage change SoS7. Order, add, subtract and compare amounts or quantities using proper and improper fractions and mixed numbers SoS8. Express one number as a fraction of another SoS9. Order, approximate and compare decimals SoS10. Add, subtract, multiply and divide decimals up to three decimal places SoS11. Understand and calculate using ratios, direct proportion and inverse proportion SoS12. Follow the order of precedence of operators, including indices SoS13. Calculate amounts of money, compound interest, percentage increases, decreases and discounts including tax and simple budgeting SoS14. Convert between metric and imperial units of length, weight and capacity using a) a conversion factor and b) a conversion graph SoS15. Calculate using compound measures including speed, density and rates of pay SoS16. Calculate perimeters and areas of 2-D shapes including triangles and circles and composite shapes including non-rectangular shapes (formulae given except for triangles and circles) SoS17. Use formulae to find volumes and surface areas of 3-D shapes including cylinders (formulae to be given for 3-D shapes other than cylinders) SoS18. Calculate actual dimensions from scale drawings and create a scale diagram given actual measurements SoS19. Use coordinates in 2-D, positive and negative, to specify the positions of points SoS20. Understand and use common 2-D representations of 3-D objects SoS21. Draw 3-D shapes to include plans and elevations SoS22. Calculate values of angles and/or coordinates with 2-D and 3-D shapes SoS23. Calculate the median and mode of a set of quantities SoS24. Estimate the mean of a grouped frequency distribution from discrete data SoS25. Use the mean, median, mode and range to compare two sets of data SoS26. Work out the probability of combined events including the use of diagrams and tables, including two-way tables SoS27. Express probabilities as fractions, decimals and percentages	Part B Sample of SoS	36 marks	9 marks	Non- scientific calculator allowed/ on-screen calculator enabled	Section B 1 hour 30 minutes

Delivering this Qualification

Becoming a Provider

To deliver this qualification you must be a recognised Open Awards provider. For more information, visit our <u>website</u> or contact the team on 0151 494 2072

How to Deliver

You can deliver this qualification by completing a <u>New Qualification Request Form</u> via the Portal.

You will be required to provide details of the staffing and resources you have in place for the delivery of Functional Skills qualifications and to confirm you can fulfil the requirements of this Qualification Guide and supporting policies.

For more information, see the Provider Handbook, or contact the team on 0151 494 2072.

Registering Learners

Once you are approve to deliver this qualification, you will need to register your learners in line with the timescales below:

Short courses (15 weeks or less) within 25 working days of the course start date. Full year long courses (over 15 weeks) within 60 working days of the course start date.

You will need to register your learners via the Open Awards <u>Portal</u> using the Learner Registration Form (LRF). Please ensure all learner details are provided to avoid delays to your learner registrations being processed. Learner Registrations Forms can be submitted by the Provider Admin Contact.

If an end-date for the course is not provided, the Functional Skills registration will last for a period of two years.

Once your learners are registered, you will be able to schedule assessments via the XAMS assessment platform.

Identification Requirements and Learner Authenticity Identification Requirements

Providers must have systems in place to ensure that an individual completing an assessment is the person they are claiming to be.

It is a provider's responsibility to confirm the identity of a learner as part of its registration process. You may do this by requesting sufficient personal data and a unique learner number (ULN) to ensure the learner can be clearly and uniquely identified.

The use of a ULN is a mandatory requirement for publicly funded education and when submitting Individualised Learner Record (ILR) returns.

Providers are required to ensure that each learner's identification is checked and that the type of identification provided by each learner is recorded before assessments are undertaken. Open Awards' Quality Assurance team will check this record during quality assurance monitoring activities.

The following are permitted proof of a learner's Identity:

- a valid passport (any nationality);
- a signed UK photo card driving licence;
- valid warrant card issued by HM Forces or the Police;
- other photographic ID card, e.g. employee ID card (must be current employer), student ID card, travel card; OR
- UK biometric residence permit If an assessment is taking place in a learner's
 place of work and a learner is unable to supply any of the above, authentication
 of a learner's identity by a third-party representative, for example his/her line
 manager or a member of his/her workplace Human Resources Team can be
 accepted.

Scheduling Assessments

Learners must be registered in accordance with Open Awards policy prior to scheduling learners for a Functional Skills assessment.

Once the learner has been registered, their assessments can be scheduled via the XAMS assessment platform.

For online assessments, providers can set their own dates/time for assessments. Providers can schedule up to 24 hours before the set assessment date/time. The assessment will be available for the learner to sit at any time on the scheduled date.

Paper-based assessments are available on two set days every six (6) weeks. All learners at the provider must sit the same subject and level on the same day. A calendar of available dates is published at the beginning of each academic year and will be made available on our website. Providers can schedule learners up to 15 working days before the set assessment date.

Please see our XAMS User Guidance on the Portal for further information.

Once scheduled, you cannot change the date or time of the assessment. Providers can, however, withdraw the learner from the scheduled assessment and re-schedule within the timescales outlined above.

Quality Assurance

Delivery of this qualification must be in accordance with Ofqual regulatory guidelines and in line with Open Awards' quality assurance processes.

Provider Staff Requirements

Providers are responsible for ensuring that their staff are occupationally competent and have access to appropriate training and support. They are also responsible for notifying Open Awards of staff changes.

To deliver our Functional Skills qualifications Open Awards expects that you have appropriate staff in place to fulfil the following essential roles:

- Tutor/ Teacher
- Internal Quality Assurer
- Invigilator
- Administrator

These roles must be covered by a minimum of 2 separate individuals to avoid potential or actual conflicts of interest. For more information, please see our Conflicts of Interest Policy available on the Portal.

In addition, it is Open Awards expectation that staff at providers meet the following minimum requirement:

- Tutors have relevant teaching experience and/or a qualification, and experience and/or a qualification in the relevant subject area, as a minimum at a level above that being taught
- For the role of the administrator, providers must ensure that the confidentiality and security of assessments is maintained at all times.

Administration includes initial receipt of confidential materials, secure storage, movement and preparation of materials for scheduled assessments, and registration, secure storage and return of materials to the awarding organisation after scheduled assessments are completed.

No tutor of a Functional Skills qualification can be involved in the invigilation or administration of the assessment materials for Level 1 and 2 assessments in that subject, regardless of the level they teach. Nobody with a vested interest in the outcome of the assessment may be involved in the administration or invigilation.

For the role of Invigilator, staff will be required to complete Open Awards' online training before the first assessment.

External Assessment

Assessment of Level 2 Functional Skills in Mathematics is through an externally set and marked assessment, comprising of a calculator and non-calculator section. This assessment can be completed on-screen (online and on-demand) or paper-based (6 weekly set date).

Providers must ensure that assessments are carried out in controlled conditions to minimise the potential for plagiarism and to ensure security of the assessment materials. In order to ensure these conditions are enforced external assessments must be delivered in accordance with our policy, Instructions for Conducting Controlled Assessments or Instructions for Conducting Controlled Assessments Remotely, available on the Portal.

Open Awards permits remote invigilation of Functional Skills assessments. Providers must apply in advance of the first assessment via the Portal if they intend to administer assessments remotely. Open Awards also provides a remote invigilation service. Open Awards invigilated assessments can be scheduled via the XAMS assessment platform by choosing this option from the drop-down. Prices associated with utilising Open Awards' invigilators are published in our Pricing Information.

Invigilator reports must be completed for every assessment and retained in line with Open Awards' Instructions for Conducting Controlled Assessments (Remotely), and made available to Open Awards external quality assurance team on request.

Invigilators are responsible for ensuring that learners do not have access to calculators for Part A of the scheduled assessment, and that, for paper-based assessments, all Part A scripts are returned before issuing Part B.

Providers must ensure that there are no conflicts of interest between the invigilator and learners by checking in advance of the assessment. The invigilator(s) **must not** be a Functional Skills tutor for the same subject the learner, or group of learners, is undertaking the assessment for. The only exception to this is where it is required as a reasonable adjustment for a learner with specific support needs. In this case, a request for a reasonable adjustment should be made to Open Awards in advance of the assessment.

Once completed, paper-based external assessments must be returned to Open Awards by secure postage. This includes any scripts that were not attempted due to learner absence. For full guidance on returning completed scripts, please refer to the instructions provided to providers with the assessment papers.

Storing Confidential Materials

Question papers and any other confidential material, e.g. answer booklets, must be stored securely at the provider's registered address in a safe and secure lockable cupboard/cabinet with restricted access in a secure locked room. The contents of all materials must be treated as strictly confidential and should not be shared with anyone other than those taking or administering the assessment. Copies may not be issued to anyone, including teaching staff. Open Awards must be notified immediately if any known or suspected infringement of these conditions takes place. Should the provider be found responsible for compromising the security of the assessment then they may be charged for redevelopment costs.

External Quality Assurance

External quality assurance includes, but is not limited to, the following activity:

- Provider performance review of results at task/question/assessment level;
- Annual quality compliance visits/activity;
- Unannounced and short-notice visits and spot checks; and
- Reviews of administration, reports, and internal quality assurance activities.

External quality assurance will ensure that:

• risk ratings can be constantly reviewed and amended (either increased or decreased) at any time to reflect a change in the risks presented by a provider.

Unannounced and Short-notice Visits

Open Awards operates a system of unannounced and short-notice visits in order to ensure that providers are complying with the rules set out within this specification, and associated policies, around the delivery of assessments. These visits ensure ongoing confidence in the qualification as well as maintaining and improving quality and standards. Such checks will create the opportunity to comment on good practice and to identify areas for improvement.

Guidance on unannounced and short-notice visits is available via the Portal.

External Marking and Results

All external assessments are marked by qualified Open Awards markers.

Standardisation and marker checks are carried out regularly to ensure quality of marking. This includes second-marking and sampling by a Lead Marker in line with Open Awards sampling policy.

Following completion of the marking process, learners' results will be available to the provider through the XAMS assessment platform.

Results for on-screen assessments will be available within a maximum of 16 working days from the date the assessment was taken and within 27 working days for paper-based assessments.

For newly released assessment versions, the maximum time a provider/ learner will wait for results to be issued is 32 working days. This additional time is to allow for the awarding process where specific pass marks are set for each assessment version.

For mathematics assessments, learners will receive a feedback report on their performance against the subject content that was assessed. This is available for providers to download via the results screen in the XAMS assessment platform.

Resits

Learners are permitted to resit an external assessment where they are issued a fail result. Resit charges will apply.

Providers are responsible for preparing their learners for the assessment and should ensure that the approach to resits is appropriate. Learners should be discouraged from repeated resits and be provided with further teaching and learning to support successful achievement of the qualifications where learners have not passed the assessment.

A learner can be re-scheduled for a resit in the XAMS assessment platform after a period of two weeks from the time that a 'fail' result is released. This is to ensure that learners receive further teaching and learning and that they are fully prepared for the resit.

Please note, providers should not re-schedule an assessment until results have been received and it is confirmed that a learner has failed an assessment attempt.

If a learner has had three (3) attempts and not yet passed, please contact us on 0151 494 2072 or quality@openawards.org.uk to discuss this with the Quality Assurance team before scheduling a fourth attempt.

Enquiries and Appeals

Providers and learners have the right to appeal against the results issued. Providers must ensure that learners are made aware of this.

There are three stages of appeal depending on the nature of the decision at each stage:

- Enquiry (Stage 1)
- Appeal (Stage 2)
- Independent Appeals Review (Stage 3)

Each stage must be completed before progressing to the next stage.

More information can be found in Open Awards Policy for Enquiries and Appeals found on our <u>website</u>.

Provider Monitoring

Providers delivering Functional Skills Maths at Levels 1 and 2 will receive an annual quality compliance visit. This will include a check of policies, procedures and controls for ensuring the provider undertakes the delivery, invigilation and administration of assessments in line with guidance and policies provided.

Providers are required to schedule all assessments to enable Open Awards to complete observations of on-screen and online assessments, unannounced visits and spotchecks.

Further guidance on training and support is available, please speak to your Open Awards' Quality and Standards Advisor.

Providers are required to contribute to national training and standardisation events as requested by Open Awards and also to carry out appropriate internal standardisation and/or peer observations for tutors involved in the delivery of Functional Skills.

Open Awards offers training and standardisation events that are held throughout the year. Such events will also provide an opportunity to identify and share best practice. Up to date details of training and standardisation events can be found on our website.

Appendices and Links

Appendix Name
Complaints Policy
Enquiries and Appeals Policy
Equality and Diversity Policy
Invaising Policy
Invoicing Policy
Privacy Policy
Provider Handbook
Reasonable Adjustments and Special
Considerations Policy
XAMS Guidance

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