



Handbook

RFSM2 – VTCT (Skillsfirst) Level 2 Functional Skills
Qualification in Mathematics

603/4808/2

Version 5

About Skillsfirst

VTCT is a market-leading Awarding, Assessment and End-point Assessment (EPA) Organisation offering vocational and technical qualifications in a range of 'services to people' sectors.

The VTCT group of companies are comprised of three innovative awarding brands: VTCT, ITEC and Skillsfirst. Together they have over 2,500 approved centres in over 40 countries across the world.

The qualifications suite offered by VTCT (Skillsfirst) spans a range of sectors including Childcare, Business Services, Health & Social Care, Recruitment and Social Media.

For more information visit us at www.vtct.org.uk and www.skillsfirst.co.uk, contact our dedicated Customer Support Team via email at customersupport@vtct.org.uk and customerservices@skillsfirst.co.uk or call 0121 270 5100

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1 Qualification at a glance

Qualification title	VTCT (Skillsfirst) Level 2 Functional Skills Qualification in Mathematics
Qualification number	603/4808/2
Product code	RFSM2
Age range	16+
Total Qualification Time (TQT)	60
Guided Learning (GL) hours	55
Assessment	To be awarded this qualification, learners must successfully achieve the following assessments: <ul style="list-style-type: none">• External assessment
Entry requirements	There are no formal entry requirements for these qualifications. However, centres will need to carry out an initial assessment of each learner prior to the start of their programme to ensure they are working towards the relevant Functional Skills qualification at the appropriate level.
Support materials	Teacher and learner support materials will be provided in the form of practice papers which can be located on our website www.skillsfirst.co.uk

2 Qualification information

2.1 Introduction to Functional Skills qualifications

Functional Skills qualifications 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, and to provide a foundation for progression into further study, or employment.

2.2 Qualification aim and design

The Skillsfirst Level 2 Functional Skills Qualification in Mathematics has been developed for work, study and life. It gives learners the opportunity to demonstrate 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.

The qualification has been designed to enable the learner to gain in confidence and fluency, and to develop behaviours such as persistence and logical thinking as they apply mathematical tools and approaches. The qualification has also been designed to:

- enable learners to demonstrate their ability in mathematical skills and their ability to apply these, through appropriate reasoning and decision making, to solve realistic problems of increasing complexity
- introduce learners 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
- enable learners to develop an appreciation of the role played by mathematics in the world of work and in life generally

The mandatory unit contained within this qualification will enable learners to use numbers and the number system, such as whole numbers, fractions, decimals and percentages, use common measures, shape and space and handle information and data.

2.3 Achievement of the Skillsfirst Level 2 Functional Skills Qualification in Mathematics

To achieve the Skillsfirst Level 2 Functional Skills Qualifications in Mathematics, learners must successfully pass the one mandatory component (on-screen or paper-based exam), this component is not graded, as it is a 'pass' or 'fail' result.

Once their result is confirmed, learners will be issued with a certificate, notifying them of their 'pass' result and the Qualification awarded. Certificates are titled by the skill and level achieved.

If a fail grade is given, a learner may take a resit examination, please see section 5.5.

2.4 Progression opportunities

On completion of the Level 2 Skillsfirst Functional Skills Qualification in mathematics, learners could progress onto A Level studies or similar vocationally-based qualifications.

3 Qualification structure

To be awarded the VTCT (Skillsfirst) Level 2 Functional Skills Qualification in Mathematics learners must achieve all mandatory units.

The minimum TQT required to achieve this qualification is **60**.

Product code	Unit title	Level	GLH	Unit reference number
Mandatory units (Group M):				
RM2	Functional Skills Mathematics Level 2	2	55	R/617/2479

4 Centre requirements

4.1 Resources

Centres must possess the physical resources needed to support the delivery of the programme and the assessment of knowledge and skills, which should therefore be of industry standard. Where specific resources are required these have been indicated in individual units.

4.2 Delivering Functional Skills

To effectively deliver Functional Skills, centres must ensure that the appropriate teaching, administrative and physical resources are in place.

4.3 Teaching staff

Teaching staff must:

- Have 2 years experience in teaching/training

Or

- Are working towards an appropriate teaching/training qualification (Cert Ed or Learning & Development trainer units)

Or

- Hold an appropriate teaching/training qualification (Cert Ed or Learning & Development trainer units)

And

- Have knowledge and experience in the subject being taught to be able to judge the learner's performance against the Functional Skills Standards and to be able to justify their teaching practices

And

- As a minimum hold the same level of the qualification being taught – but preferably hold a higher level

4.4 Registering learners

In order to enter learners for any of the Functional Skills examinations, centre staff should first register learners with Skillsfirst through our secure online portal REG (Registration/Certification Electronic Gateway).

If you do not have a username and password for this portal, please contact Skillsfirst on 0121 270 5100 or email customerservice@skillsfirst.co.uk

4.5 Continuous professional development (CPD)

Centres are responsible for ensuring that deliverers, Assessors/Tutors and those responsible for internal quality assurance, plan and maintain their CPD. Centres are expected to support their deliverers, Assessors/Tutors and IQAs in ensuring that their knowledge remains current of the occupational area and of best practice in delivery, mentoring, training, assessment and verification, and that it takes account of any national or legislative developments. Centres may have generic criteria and personnel specifications in addition to these requirements.

4.6 Total Qualification Time (TQT)

Each qualification has a Total Qualification Time (TQT) value based on the total number of hours learning required to achieve it. The TQT value reflects the number of supervised learning hours required to achieve the knowledge and assessment requirements, plus the length of time a learner would need to take to achieve the skills and capabilities to be deemed competent. All RQF qualifications are subject to an evaluation process to determine their fitness-for-purpose.

4.7 Skillsfirst Centre Recognition and Qualification Approval

Centres wishing to offer Functional Skills must comply with both this qualification handbook and the Skillsfirst centre recognition / qualification approval criteria.

If you are an **existing** Skillsfirst centre and want to add Functional Skills to your approved qualifications, submit a qualification application form via QMIS and attach a signed copy of the SLC and administration / invigilation declaration form (Appendix 1).

If you are **not an existing** Skillsfirst centre and wish to register your interest in becoming an accredited centre, call us on 0121 270 5100 and a member of our Business Development Team will be happy to guide you through the centre recognition process.

If you require any support, please contact the Skillsfirst Customer Services Team who will be delighted to support you on 0121 270 5100 or customerservices@skillsfirst.co.uk

4.8 External Verification and Direct Claims Status (DCS)

In order for centres to be considered for Direct Claims Status (DCS) for Level 1 and Level 2 Functional Skills Mathematics, they must provide Skillsfirst with sufficient evidence that centre staff are following Skillsfirst's invigilation requirements. Centres will be required to submit to Skillsfirst completed invigilation records including seating plan, attendance register and invigilation reports for the first cohort of learners and upon request by Skillsfirst on an ongoing basis.

As part of a centre's annual external quality assurance visit, External Verifiers will:

- review centre policies, procedures and controls
- sample invigilation records including seating plan, attendance registers and invigilation reports to ensure centres are following Skillsfirst's requirements
- carry out an unscheduled observation of any live assessments taking place
- interview centre staff and learners
- review evidence that the administration and invigilation of controlled assessments (exams) are conducted in line with the rules set out in section 5.3.1
- review the examination room to ensure it meets Skillsfirst requirements
- review evidence of standardisation and quality assurance monitoring of invigilation practice
- ensure the centre is taking all reasonable steps to prevent the occurrence of malpractice or maladministration
- ensure centre staff have access to an up-to-date version of Skillsfirst Instructions for Conducting Controlled Assessments
- review evidence that centre staff are using up-to-date versions of all qualification documentation

Direct Claims Status will only be granted once Skillsfirst is satisfied through appropriate monitoring, that assessment arrangements are fit for purpose and are being delivered in accordance with Skillsfirst's requirements.

In addition to annual external quality assurance visits, Skillsfirst will conduct unannounced invigilation audits to Functional Skills approved centres.

Skillsfirst reserves the right to charge centres for additional external verification activities over and above the annual verification visit.

5 Assessment

5.1 Scheduling Functional Skills Mathematics exams

When taken onscreen, Functional Skills Mathematics exams can be taken at any time (on-demand).

Centres will be provided with guidance in the form of a User Guide and tutorial videos to support centre staff with the scheduling of onscreen exams in the XAMS platform, this will be available on the Skillsfirst website.

Marking of exams takes place in frequent windows and released on a weekly basis (once the awarding process has been completed for all assessments).

For information on paper-based exams, marking windows and result release dates refer to the Reformed Functional Skills Exam Delivery Calendar, available on our website www.skillsfirst.co.uk

5.2 Preparing learners for the Functional Skills Mathematics exam

A free onscreen practice exam will be made available to centres. This can be used by staff and learners to familiarise themselves with the onscreen system functionality and scope of study. This is available on our website www.skillsfirst.co.uk.

5.3 Conduct of Functional Skills exams

Functional Skills examinations must be taken under supervised, controlled examination conditions, that is:

- time restrictions for Section A and B must be managed by the invigilator i.e. 30 minutes for Section A; 90 minutes for Section B
- any time restrictions must be complied with
- learners must be continually supervised by a reliable person (see 5.3.1 for further information)
- all necessary facilities must be available to learners
- in a suitable examination room in which learners cannot be distracted / disturbed and the security of the assessment cannot be compromised (exams must not be taken in a public place)
- learners work must be independent and unaided

5.3.1 Administration and invigilation of Reading and Writing examinations

All Functional Skills Mathematics examinations, including both paper-based and on-screen must be carried out under strict examination conditions as outlined in Skillsfirst's Instructions for Conducting Controlled Assessments which is available on our website www.skillsfirst.co.uk

5.3.1.1 Administration of exams

(‘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 exams are completed).

No tutor of a Functional Skills qualification can be involved in the administration of the assessment materials for level 1 and 2 exams in that subject, regardless of the level they teach

5.3.1.2 Invigilation of exams

A centre must ensure that it has a suitable invigilator available for all level 1 and 2 Functional Skills exams.

A Functional Skills subject tutor must not be involved in the invigilation of that subject, even if they have not taught those learners (i.e. a Functional Skills English tutor must not invigilate any Functional Skills English exam and a Functional Skills Maths tutor must not invigilate any Functional Skills Maths exam, regardless of the level they teach). In addition, no centre staff with a conflict of interest with the learner / the learners result should invigilate the exam(s).

Centres must ensure that:

- the invigilator is an independent person; this must not be the same Tutor / Assessor for the delivery of the course the learner, or group of learners is undertaking; or any other staff member with a conflict of interest in the learner's result
- all staff invigilating Functional Skills exams are familiar with and implement the requirements set out in Skillsfirst's Instructions for Conducting Controlled Assessments, which give clear instructions on Skillsfirst requirements

5.4 Learner certification process

Functional Skills are 'pass' or 'fail' qualifications, they are not graded. They are also free standing qualifications so each subject will be certificated separately. Certificates are titled by skill and the level achieved.

Skillsfirst will certificate learners when they have achieved the required pass mark in the Mathematics exam.

5.5 Re-sits

Learners are permitted to resit an external assessment where they are not successful. There are no limits on the number of times a learner may re-sit a Functional Skills exam, however a learner must wait at least 14 days from the date of the last exam (or the date uploaded to Skillsfirst for onscreen exams).

Centres are responsible for preparing learners for the assessment and should ensure that a learner receives further teaching, learning and preparation to support successful achievement of the qualification before any re-sits take place.

In the event a learner has sat all current live on-screen assessments they will be required to sit paper-based assessments.

In the event a learner has sat all current live paper-based assessments they will be required to sit on-screen assessments.

5.6 Access to assessment

Skillsfirst is committed to guaranteeing all learners are treated fairly and equally and to ensure this occurs, has in place a reasonable adjustments and special considerations policy. This policy states clearly what centres can and in some cases must, put in place to assist learners who may have particular requirements.

We expect centres to tell learners how to find and use their own Reasonable Adjustments and Special Considerations Policy and will monitor implementation through the external verification process.

However, these **must not** affect the reliability or validity of assessment outcomes, or give the learner an assessment advantage over other learners undertaking the same or similar assessments.

5.6.1 Exemptions – please note

Disability Discrimination legislation (now incorporated into the Equality Act 2010) permits the granting of exemptions for specific assessment components within qualifications in certain circumstances.

For full details see the Skillsfirst Reasonable Adjustment and Special Consideration Policy available on the Skillsfirst website www.skillsfirst.co.uk.

Further advice on this policy and its application can be obtained from our Customer Services Team at customerservices@skillsfirst.co.uk

6 Units

Unit Handbook

RM2 – Functional Skills Mathematics

Unit reference number: R/617/2479

Level: 2

Guided Learning (GL) hours: 55

Unit aim

This unit will give the learner the opportunity to demonstrate their competence to use numbers and the number system, use common measures, shape and space, as well as handle information and data to a Level 2 standard.

Learning outcomes

There are three outcomes to this unit. The learner will:

LO1 Be able to use numbers and the number system to a level 2 standard

LO2 Be able to use common measures, shape and space to a level 2 standard

LO3 Be able to handle information and data to a level 2 standard

Unit content

Evidence requirements

Level 2 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

Method of assessment

Method	Duration	Marks
This is one mandatory externally set summative assessment which is marked by Skillsfirst and can be taken either as a: <ul style="list-style-type: none">• Onscreen, on-demand exam through the XAMS platform• Paper-based exam as per the Paper based Functional Skills Exam Delivery Calendar (every 6 weeks)	2 hours total	60 available in total
	Section A – 30 minutes non-calculator	15 marks available
	Section B – 90 minutes calculator permitted	45 marks available

Please note:

For those learners taking paper-based exams, the calculator used for Section B **must not** be a scientific calculator. For on-screen exams, the calculator will be provided on-screen within the XAMS platform.

Assessment guidance

Learners are expected to be able to use the knowledge and skills listed within this unit 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).

It is expected that learners will be able to address individual problems some of which draw upon a combination of all three mathematical areas and require learners to make connections between those content areas.

Learning outcomes

Learning Outcome	Assessment Criteria
LO1 Be able to use numbers and the number system to a level 2 standard	1.1 Read, write, order and compare positive and negative numbers of any size
	1.2 Carry out calculations with numbers up to one million including strategies to check answers including estimation and approximation
	1.3 Evaluate expressions and make substitutions in given formulae in words and symbols
	1.4 Identify and know the equivalence between fractions, decimals and percentages
	1.5 Work out percentages of amounts and express one amount as a percentage of another
	1.6 Calculate percentage change (any size increase and decrease), and original value after percentage change
	1.7 Order, add, subtract and compare amounts or quantities using proper and improper fractions and mixed numbers
	1.8 Express one number as a fraction of another
	1.9 Order, approximate and compare decimals
	1.10 Add, subtract, multiply and divide decimals up to three decimal places
	1.11 Understand and calculate using ratios, direct proportion and inverse proportion

Learning Outcome	Assessment Criteria
LO2 Be able to use common measures, shape and space to a level 2 standard	2.1 Calculate amounts of money, compound interest, percentage increases, decreases and discounts including tax and simple budgeting
	2.2 Convert between metric and imperial units of length, weight and capacity using a) a conversion factor and b) a conversion graph
	2.3 Calculate using compound measures including speed, density and rates of pay
	2.4 Find 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)
	2.5 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)
	2.6 Calculate actual dimensions from scale drawings and create a scale diagram given actual measurements
	2.7 Use coordinates in 2-D, positive and negative, to specify the positions of points
	2.8 Understand and use common 2-D representations of 3-D objects
	2.9 Draw 3-D shapes to include plans and elevations

Learning Outcome	Assessment Criteria
LO3 Be able to handle information and data to a level 2 standard	3.1 Calculate the median and mode of a set of quantities
	3.2 Estimate the mean of a grouped frequency distribution from discrete data
	3.3 Use the mean, median, mode and range to compare two sets of data
	3.4 Work out the probability of combined events including the use of diagrams and tables, including two-way tables
	3.5 Express probabilities as fractions, decimals and percentages
	3.6 Draw and interpret scatter diagrams and recognise positive and negative correlation

RM2 Document History

Version	Issue Date	Changes	Role
V1.0	31/01/2023	Re-branded	Qualification Administrator

Appendix 1

Level 1 & 2 Functional Skills Qualification in English (RFSE1 and RFSE2) and Mathematics (RFSM1 and RFSM2)

Speaking, Listening and Communicating and Administration/Invigilation Declaration Form

Please complete and return this form when applying for qualification approval for Skillsfirst Level 1 and 2 Functional Skills Qualification in English and Mathematics to confirm your centre understands its responsibilities with regards to delivering Speaking, Listening and Communicating (if approved for English) and the administration and invigilation of Skillsfirst Functional Skills exams effective from 1st September 2019.

Centre name:	
Centre number:	

Speaking, Listening and Communicating (SLC) – if delivering English		
Please tick (✓) to confirm the following	Yes	No
You have received the SLC video and supporting assessment documentation.	<input type="checkbox"/>	<input type="checkbox"/>
You understand all current staff involved with the delivery of SLC must have viewed the video prior to assessment of any learners takes place.	<input type="checkbox"/>	<input type="checkbox"/>
You understand your centre has a responsibility to ensure all new staff involved with the delivery of SLC (after approval) must view the video prior to assessment of any learners taking place.	<input type="checkbox"/>	<input type="checkbox"/>
Will your centre be using the sample SLC tasks provided by Skillsfirst?	<input type="checkbox"/>	<input type="checkbox"/>
If you answered Yes to Q4, you understand if your centre intends to develop your own SLC tasks in the future, you are aware these must be approved by Skillsfirst prior to using them (<i>NB: please refer to the Functional Skills English Handbook for further information</i>).	<input type="checkbox"/>	<input type="checkbox"/>
If you answered No to Q4, you understand you must submit all centre devised SLC assessment tasks to Skillsfirst for approval prior to using them. Please note, there is a fee of £300 + VAT per centre devised assessment task.	<input type="checkbox"/>	<input type="checkbox"/>

Administration and invigilation of Functional Skills exams (paper-based and on-screen)		
Please tick (✓) to confirm the following	Yes	No
<p>1. You understand no tutor of a Functional Skills qualification can be involved in the administration* of the assessment materials for level 1 and 2 exams in that subject, regardless of the level they teach for both paper-based and on-screen exams.</p> <p>*'Administration' includes registration, initial receipt of confidential materials, secure storage, movement and preparation of materials for scheduled assessments, secure storage and return of materials to Skillsfirst after scheduled exams are completed.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>2. You understand a Functional Skills subject tutor must not be involved in the invigilation of that subject even if they have not taught those learners (i.e. a Functional Skills English tutor must not invigilate any Functional Skills English exam and a Functional Skills Maths tutor must not invigilate any Functional Skills Maths exam, regardless of the level they teach).</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>3. You understand invigilation must not be carried out by the learners Assessor (for their main aim/RQF qualification(s)), or any other staff member with a conflict of interest with the learner/the learners result. This role must be carried out by an independent person.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>4. You understand all Functional Skills exams, both paper-based and on-screen, must be carried out in an exam room, under strict examination conditions and in line with Skillsfirst Instructions for Conducting Controlled Assessments, NOT in a public place.</p>	<input type="checkbox"/>	<input type="checkbox"/>

Name:	
Role:	
Signed:	
Date:	

RFSM2 Document History

Version	Issue Date	Changes	Role
v5	16/02/2023	Formatting and re-branding. No content amendment.	Data Administrator