

# **DRAFT Functional Skills Mathematics Conditions, requirements and guidance**

**March 2018**

Not yet in force

# Contents

Conditions and requirements .....	3
Subject Level Conditions.....	3
Assessment requirements for functional skills qualifications in mathematics .....	8
Standard setting requirements for functional skills qualifications in mathematics.	13
Assessment strategy requirements for functional skills qualifications in mathematics	15
Guidance .....	22
Guidance on interpretation of the subject content.....	22
Guidance on assessment availability.....	26
Guidance on notifying Ofqual of proposal to make qualification available.....	27
Guidance on standard setting for functional skills qualifications in mathematics..	28

Not yet in force

# Conditions and requirements

## Subject Level Conditions

### Condition FSM1 Compliance with content requirements

- FSM1.1 In respect of each functional skills qualification in mathematics which it makes available, or proposes to make available, an awarding organisation must –
- (a) comply with the requirements relating to that qualification set out in the document published by the Secretary of State entitled ‘Subject content functional skills: mathematics’,<sup>1</sup> document reference DFE-00046-2018,
  - (b) have regard to any recommendations or guidelines relating to that qualification set out in that document, and
  - (c) interpret that document in accordance with any requirements, and having regard to any guidance, which may be published by Ofqual and revised from time to time.

### Condition FSM2 Assessment Strategies

- FSM2.1 In respect of each functional skills qualification in mathematics which it makes available, or proposes to make available, an awarding organisation must –
- (a) establish and maintain an assessment strategy for that qualification,
  - (b) ensure that the assessment strategy complies with any requirements which may be published by Ofqual and revised from time to time, and
  - (c) have regard to any guidance in relation to assessment strategies which may be published by Ofqual and revised from time to time.
- FSM2.2 In particular, an awarding organisation must ensure that the assessment strategy for a functional skills qualification in mathematics sets out how the awarding organisation intends to secure, on an ongoing basis, compliance with its Conditions of Recognition in respect of the assessments for that qualification.

---

<sup>1</sup> [www.gov.uk/government/publications/functional-skills-subject-content-mathematics](http://www.gov.uk/government/publications/functional-skills-subject-content-mathematics)

- FSM2.3 An awarding organisation must ensure that all assessments for a functional skills qualification in mathematics which it makes available, or proposes to make available, are designed, set, delivered and marked in compliance with its assessment strategy for that qualification.
- FSM2.4 An awarding organisation must –
- (a) keep under review its assessment strategy for a functional skills qualification in mathematics, and revise it where necessary, so as to satisfy itself that the assessment strategy meets at all times the requirements of Conditions FSM2.1 and FSM2.2,
  - (b) review that assessment strategy promptly upon receiving a request from Ofqual to do so, and subsequently ensure that its assessment strategy complies with any requirements that Ofqual has communicated to it in writing, and
  - (c) promptly notify Ofqual of any revisions made by it to that assessment strategy.
- FSM2.5 An awarding organisation must –
- (a) upon receiving a request from Ofqual to do so, demonstrate to Ofqual's satisfaction that it has complied with its assessment strategy for a functional skills qualification in mathematics in respect of any particular assessment for that qualification, or provide an explanation to Ofqual as to why it has not so complied, and
  - (b) give effect to any recommendation that Ofqual may make in respect of its compliance with its assessment strategy.

### Condition FSM3 Technical Evaluation

- FSM3.1 Before first making available a functional skills qualification in mathematics, an awarding organisation must –
- (a) promptly notify Ofqual that it proposes to make the qualification available,
  - (b) comply with the terms of any written notice served by Ofqual requiring the awarding organisation to provide Ofqual with information, and
  - (c) either –
    - (i) comply with any requirements specified to it by Ofqual in relation to the qualification, or

- (ii) have received written confirmation from Ofqual that it has no such requirements.

FSM3.2 For the purposes of Condition FSM3.1(b), a notice given by Ofqual may –

- (a) specify the time within which the information is to be provided,
- (b) specify a form in which the information is to be provided, and
- (c) require an awarding organisation to provide information which is already in its possession or which has to be created or obtained by it.

FSM3.3 Where Ofqual specifies requirements in relation to a qualification under Condition FSM3.1(c), it may specify that the awarding organisation may make that qualification available before those requirements are complied with.

#### **Condition FSM4 Assessment**

FSM4.1 An awarding organisation must ensure that in respect of each assessment for a functional skills qualification in mathematics which it makes available, or proposes to make available, it complies with any requirements, and has regard to any guidance, which may be published by Ofqual and revised from time to time.

#### **Condition FSM5 Specified levels of attainment**

FSM5.1 An awarding organisation must ensure that the specification for each functional skills qualification in mathematics which it makes available, or proposes to make available, sets out specified levels of attainment which comply with any requirements which may be published by Ofqual and revised from time to time.

FSM5.2 In respect of each functional skills qualification in mathematics which it makes available, an awarding organisation must comply with any requirements, and have regard to any guidance, which may be published by Ofqual and revised from time to time in relation to –

- (a) the promotion of consistency between the measurement of Learners' levels of attainment in that qualification and similar qualifications made available by other awarding organisations, and
- (b) the setting of specified levels of attainment.

FSM5.3 In setting the specified levels of attainment for a functional skills qualification in mathematics which it makes available, an awarding

organisation must have regard to an appropriate range of qualitative and quantitative evidence.

FSM5.4 In respect of each functional skills qualification in mathematics which it makes available, the range of evidence to which an awarding organisation has regard for the purposes of Condition FSM5.3 will only be appropriate if it includes evidence of –

- (a) the Level of Demand of the assessments for that qualification,
- (b) the level of attainment demonstrated in those assessments by –
  - (i) an appropriately representative sample of Learners taking that qualification, or
  - (ii) individuals (whether Learners or otherwise) as part of robust technical pre-testing of those assessments,
- (c) where available, the level of attainment demonstrated by Learners taking that qualification in a –
  - (i) prior assessment (which was not for that qualification), whether or not that assessment was for a regulated qualification, or
  - (ii) prior qualification, whether or not that qualification was a regulated qualification, and
- (d) following the first time that a Component designed in line with these Subject Level Conditions is awarded, the level of attainment demonstrated by Learners who have previously been awarded that Component.

FSM5.5 An awarding organisation must maintain a record of –

- (a) the evidence to which it has had regard in setting the specified levels of attainment for each functional skills qualification in mathematics which it makes available, and
- (b) its rationale for the selection of and weight given to that evidence.

## Condition FSM6 Interpretation and Definitions

- FSM6.1 The rules of interpretation and definitions outlined in General Condition J1 shall apply to the Subject Level Conditions for functional skills qualifications in mathematics.
- FSM6.2 Except in the circumstances described in Condition FSM6.3, the requirements imposed by the Subject Level Conditions for functional skills qualifications in mathematics apply in addition to the requirements imposed by the General Conditions of Recognition.
- FSM6.3 To the extent that there is any inconsistency between a requirement of such a Subject Level Condition and a requirement of a General Condition of Recognition, such that an awarding organisation could not comply with both such requirements, the awarding organisation must comply with the requirement of the Subject Level Condition and is not obliged to comply with the requirement of the General Condition of Recognition.

Not yet in force

# Assessment requirements for functional skills qualifications in mathematics

Condition FSM4.1 allows us to specify requirements and guidance in relation to the assessment of functional skills qualifications in mathematics.

We set out our requirements for the purposes of Condition FSM4.1 below.

The relevant knowledge, skills and understanding for the qualification is set out in the Department for Education's 'Subject content functional skills: Mathematics',<sup>2</sup> document reference DFE-00046-2018 (the 'Content Document'), with which an awarding organisation must comply under Condition FSM1.1.

## Single Component

Each functional skills qualification in mathematics must be made up of a single Component.

## Assessment with and without a calculator

In designing and setting the assessment(s) for a functional skills qualification in mathematics which it makes available, or proposes to make available, an awarding organisation must ensure that of the total marks available –

- (a) 25% are allocated to questions or tasks which must be completed by Learners without the use of, or access to, a calculator<sup>3</sup> (the 'Non-calculator Test'), and
- (b) 75% are allocated to questions or tasks for which Learners are permitted to use a calculator (the 'Calculator Test').

Each functional skills qualification in mathematics must comprise either –

- (a) a single assessment, with separate sections for each of the Non-calculator Test and the Calculator Test, or
- (b) two assessments, one comprising the Non-calculator Test and the other the Calculator Test.

---

<sup>2</sup> [www.gov.uk/government/publications/functional-skills-subject-content-mathematics](http://www.gov.uk/government/publications/functional-skills-subject-content-mathematics)

<sup>3</sup> Throughout these requirements a calculator is defined as any electronic device which may be used for the performance of mathematical computations.



## Weighting of content areas

The Content Document stipulates the following three separate content areas for each level –

- (a) using numbers and the number system,
- (b) using common measures, shape and space, and
- (c) handling information and data.

In respect of a functional skills qualification in mathematics that it makes available, or proposes to make available, an awarding organisation must –

- (a) ensure that each assessment, or pair of assessments –
  - (i) samples as much of the subject content as practicable,
  - (ii) contains a reasonable balance between the three content areas, and
  - (iii) the subject content sampled in the Calculator Test and the Non-calculator Test is appropriate to each.
- (b) sample all of the content in as few iterations of the assessments as possible.

In complying with the requirements at (a) and (b) above, an awarding organisation must take all reasonable steps to ensure that assessments at each level are comparable and are not predictable.

## Underpinning skills and problem solving

The Content Document states that functional skills qualifications in mathematics need to provide assessment of Learners' underpinning skills – defined as 'the ability to do maths when not as part of a problem'<sup>4</sup> – as well as their ability to apply mathematical thinking to solve problems.<sup>5</sup>

In designing and setting the assessment(s) for a functional skills qualification in mathematics which it makes available, or proposes to make available, an awarding organisation must –

---

<sup>4</sup> Content Document, fn. 1, p. 3.

<sup>5</sup> Content Document, p. 4.

- (a) take reasonable steps to ensure that of the total marks available in that assessment, or pair of assessments –
  - (i) 25% are allocated to questions or tasks which assess underpinning skills, and
  - (ii) 75% are allocated to questions or tasks which assess problem solving,
- (b) where it is not possible to achieve these weightings having taken reasonable steps, ensure that the weighting of the assessment of underpinning skills and problem solving is within +/- 2% of the relevant weighting specified in (a), and
- (c) ensure that, within the parameters set out in (a) and (b), there is reasonable coverage of assessment of Learners' underpinning skills and problem solving within each of the Calculator Test and the Non-calculator Test.

### Overall assessment time

An awarding organisation must design and set the assessments for a functional skills qualification in mathematics on the basis that the total amount of time spent by each Learner in taking those assessments shall be –

- (a) at entry level –
  - (i) no less than an hour and 15 minutes, and
  - (ii) no more than an hour and 45 minutes, and
- (b) at levels 1 and 2 –
  - (i) no less than an hour and 45 minutes, and
  - (ii) no more than two hours and 30 minutes.

### Setting assessments

An awarding organisation must set all assessments for a functional skills qualification in mathematics that it makes available.

#### *Adaptations at entry level*

An awarding organisation may permit a Centre to adapt questions or tasks in assessments at entry level for the purpose of making those assessments more accessible to Learners.

Where an awarding organisation permits a Centre to adapt questions or tasks, such adaptations must relate only to the context presented by that question or task. An awarding organisation must not permit a Centre to amend –

- (a) the knowledge, skills or understanding that a Learner is required to demonstrate in the question or task,
- (b) the Level of Demand of the question or task, or
- (c) any specified conditions under which the assessment must be completed, including in particular the time within which the assessment must be completed (unless any such amendment is part of a Reasonable Adjustment or for the purposes of Special Consideration).

### Marking of assessments

#### *Levels 1 and 2*

Evidence generated by a Learner in an assessment at levels 1 and 2 must be marked by the awarding organisation or a person connected to the awarding organisation.

#### *Entry level*

Evidence generated by a Learner in an assessment at entry level may be marked –

- (a) by the awarding organisation or a person connected to the awarding organisation,
- (b) by a Centre, or
- (c) through a combination of (a) and (b).

In any event, the awarding organisation must demonstrate to Ofqual's satisfaction in its assessment strategy that –

- (a) it has taken all reasonable steps to identify the risk of any Adverse Effect which may result from its approach to marking the assessments (and to Moderation where appropriate), and
- (b) where such a risk is identified, it has taken all reasonable steps to prevent that Adverse Effect or, where it cannot be prevented, to mitigate that Adverse Effect.

## Guidance for Centres

Under Condition G9.2(a) an awarding organisation must ensure that every assessment for a qualification which it makes available is fit for purpose on delivery.

Under Condition C2.5 an awarding organisation must provide effective guidance to a Centre in respect of the parts of the delivery of a qualification that the Centre undertakes.

Under Condition H1.1 an awarding organisation must ensure that the criteria against which Learners' performance will be differentiated are applied accurately and consistently by all Assessors.

Taking these obligations together, and without prejudice to any other action that they might require, an awarding organisation must provide effective guidance to Centres in respect of the adaptation, delivery and marking by Centres, as relevant, of assessments for a functional skills qualification in mathematics which it makes available, or proposes to make available.

Not yet in force

## Standard setting requirements for functional skills qualifications in mathematics

Condition FSM5.1 allows us to specify requirements and guidance in relation to the specified levels of attainment that must be used for functional skills qualifications in mathematics.

Condition FSM5.2(b) allows us to specify requirements and guidance in relation to how those specified levels of attainment are set.

We set out our requirements for the purposes of Conditions FSM5.1 and FSM5.2(b) below.

### Specified level of attainment in functional skills qualifications in mathematics

In relation to each functional skills qualification in mathematics, an awarding organisation must ensure that –

- (a) there shall be a single specified level of attainment – 'Pass', and
- (b) a Learner is issued a result of 'Fail' where he or she –
  - (i) does not meet the criteria to be awarded a Pass, or
  - (ii) has not taken all of the necessary assessments.

### Setting the specified level of attainment

An awarding organisation must set a single boundary mark for a Pass for the Component.

This means that, where the Component comprises two assessments, an awarding organisation –

- (a) must set a single boundary mark which is then applied to a Learner's combined mark from both assessments, and
- (b) must not set a boundary mark for either of the individual assessments.

Where a number of alternative versions of the same assessment are used simultaneously, with each Learner taking one version per attempt, an awarding organisation must ensure that the boundary mark for the Component is set in such a way as to secure –

- (a) the maintenance of standards across the alternative routes to the qualification, and
- (b) suitable qualification level standards.

Where a single version of an assessment is used for a Component, an awarding organisation must set the boundary mark for that assessment in such a way as to secure suitable qualification level standards.

Not yet in force

## Assessment strategy requirements for functional skills qualifications in mathematics

Condition FSM2.1(a) requires an awarding organisation to establish and maintain an assessment strategy for each functional skills qualification in mathematics which it makes available or proposes to make available. Condition FSM2.2 requires an awarding organisation to ensure that the assessment strategy for a functional skills qualification in mathematics sets out how the awarding organisation intends to secure, on an ongoing basis, compliance with its Conditions of Recognition in respect of the assessments for that qualification.

Condition FSM2.1(b) requires an awarding organisation to have regard to any requirements in relation to assessment strategies published by Ofqual. We set out our requirements for the purposes of Condition FSM2.1(b) below.

### General requirements

An assessment strategy for a functional skills qualification in mathematics must provide a comprehensive picture of the steps and approach an awarding organisation will take to secure compliance with its Conditions of Recognition in relation to the design, delivery and marking of assessments for, and the award of, that qualification.

An assessment strategy must present a logical and coherent narrative that includes clear and concise evidence demonstrating how an awarding organisation will seek to ensure that the qualification, and the assessments for it, are fit for purpose. In particular, it must include information and evidence to show how the awarding organisation promotes and acts on feedback between the different stages of the qualification development cycle so as to continuously improve the assessments for that qualification.

### Detailed requirements

We set out below our detailed requirements on the specific information and evidence an awarding organisation must include in its assessment strategy. The amount of information and evidence that can be included may vary across the areas identified, depending on the relevant point in the qualification development cycle to which a particular item pertains and the extent to which Ofqual has determined the regulatory approach in relation to a particular issue.

These detailed requirements are intended to indicate the minimum items that an assessment strategy must include. They are not intended to provide a template specifying the form that it must take, since the optimal structure and content of an assessment strategy will depend on the approach that is being proposed by the awarding organisation.

SECTION 1: ASSESSMENT DESIGN & APPROACH	EXAMPLES OF RELEVANT CONDITIONS
<p><b>Overall assessment time</b></p> <p>For each level, the overall assessment time from within the permitted range, and a rationale for this.</p>	<p>Condition FSM4.2</p> <p>Condition E4.2</p> <p>Conditions G9.1 – G9.2</p>
<p><b>Individual assessment times</b></p> <p>For each level, the assessment time for the Component, and for each assessment where more than one assessment is used, and a rationale for these times (for example in terms of covering the required subject content effectively, and balancing reliability and manageability).</p>	<p>Condition FSM4.2</p> <p>Condition D1</p> <p>Condition E4.2</p> <p>Condition G1</p> <p>Conditions G9.1 – G9.2</p>
<p><b>Number of marks per Component</b></p> <p>For each level, the number of marks for the Component, and for each assessment where more than one assessment is used, and a rationale for those numbers of marks (for example in terms of covering the required subject content effectively, and balancing reliability and manageability).</p>	<p>Condition FSM4.2</p> <p>Condition D1</p> <p>Condition E4.2</p> <p>Condition G1</p>
<p><b>Assessment structure</b></p> <p>For each level, details of how assessments will be structured, for example:</p> <ul style="list-style-type: none"> <li>■ whether different assessments, or different sections of a single assessment, are to be used for the Calculator Test and Non-calculator Test.</li> </ul>	<p>Condition FSM4.2</p> <p>Condition D1</p> <p>Condition E4.2</p> <p>Condition G1</p>
<p><b>Coverage of subject content</b></p> <p>Approach to coverage of the subject content, including:</p> <ul style="list-style-type: none"> <li>■ sampling a representative amount and range in each assessment or set of assessments,</li> <li>■ covering the whole subject content in as few iterations of assessments as reasonably practicable, and</li> </ul>	<p>Condition FSM1.1</p> <p>Condition FSM4.2</p> <p>Condition D1</p> <p>Condition E4.2</p> <p>Condition G1</p>



<ul style="list-style-type: none"> <li>■ assessing the subject content in accordance with any specific Ofqual requirements (e.g. in relation to underpinning skills and problem-solving and the Calculator Test and Non-calculator Test etc.).</li> </ul>	
<p><b>Item types and mark schemes</b></p> <p>For each level:</p> <ul style="list-style-type: none"> <li>■ details of the range and balance of item types to be used (e.g. multiple-choice, short answer, extended response, etc.) and how these will support valid assessment of the subject content at the appropriate level,</li> <li>■ approach to mark scheme design, including for different item types, and an explanation of how resulting mark schemes will support reliable application, and</li> <li>■ a sample of example items and associated mark schemes, representing the range to be used in assessments, with commentaries explaining the approaches taken.</li> </ul>	<p>Condition FSM1.1</p> <p>Condition FSM4.2</p> <p>Condition D1</p> <p>Condition E4.2</p> <p>Condition G1</p> <p>Condition H1.1</p>
<p><b>Availability of assessments</b></p> <p>Approach to availability of assessments, including:</p> <ul style="list-style-type: none"> <li>■ number of assessments to be available,</li> <li>■ type of assessment (e.g. online and/or paper-based),</li> <li>■ nature of opportunities (e.g. on-demand or sessions),</li> <li>■ duration for which assessments will be available, and</li> <li>■ approach to Learners taking an assessment again.</li> </ul> <p>In light of the approach to assessment availability, any specific risks that have been identified, how these will be mitigated, and how particular challenges will be addressed, including:</p> <ul style="list-style-type: none"> <li>■ ensuring comparability of assessments,</li> <li>■ minimising predictability of assessments, and</li> </ul>	<p>Condition D1</p> <p>Condition E4.2</p> <p>Condition G1</p> <p>Conditions G9.1 – G9.2</p> <p>Condition H2</p> <p>Condition H3</p>

<ul style="list-style-type: none"> <li>ensuring security of assessments.</li> </ul>	
<b>SECTION 2: ASSESSMENT DEVELOPMENT &amp; DELIVERY</b>	
<p><b>Developing assessment materials</b></p> <p>Process for developing assessment materials, including different stages and personnel involved, how evidence regarding functioning of previous assessments is used, and any differences by assessment type.</p>	<p>Condition FSM1.1</p> <p>Condition FSM4.2</p> <p>Condition D1</p> <p>Condition D3</p> <p>Condition E4.2</p> <p>Condition G1</p> <p>Condition G3</p> <p>Condition G9.1</p>
<p><b>Assessment setting arrangements</b></p> <p>Approach to training individuals who will be responsible for setting assessments and/or items, including ensuring security and mitigating any conflicts of interest.</p>	<p>Condition A4</p> <p>Conditions A5.1 – A5.3</p> <p>Condition G1</p> <p>Condition G4</p>
<p><b>Assessor standardisation</b></p> <p>Approach to training and standardising assessors, including details of standardisation procedures and any wider training.</p>	<p>Condition G1.3</p> <p>Condition H1</p> <p>Condition H2</p> <p>Condition H5</p>
<p><b>Monitoring marking</b></p> <p>Processes in place to monitor accuracy and consistency of marking and issuing of results, and to take remedial action where necessary.</p>	<p>Condition H1</p> <p>Condition H2</p> <p>Condition H5</p> <p>Condition H6.1(d)</p>
<p><b>Malpractice &amp; security arrangements</b></p>	<p>Condition A8</p> <p>Condition G4</p>

<p>How malpractice will be addressed and security of assessments will be ensured, including any differences by assessment type.</p>	
<b>SECTION 3: CENTRE ASSESSMENT &amp; MODERATION</b>	
<p><b>Centre assessment</b></p> <ul style="list-style-type: none"> <li>■ Approach to whether Centre-adaptation and/or Centre marking will be permitted at entry level.</li> <li>■ An explanation of the rationale for this, and how any risks will be managed, for example in relation to authenticity of Learners' work and accuracy of Centres' marking.</li> </ul>	<p>Condition FSM4.2</p> <p>Condition C1</p> <p>Conditions C2.1 – C2.3</p> <p>Condition D1</p> <p>Condition E4.2</p> <p>Condition G1</p> <p>Condition G3</p> <p>Condition G9</p>
<p><b>Guidance and training to centres</b></p> <p>Approach to the provision of guidance and training to Centres around Centre-adapted, and Centre-marked assessments. In particular to cover:</p> <ul style="list-style-type: none"> <li>■ guidance around setting and/or adapting assessments,</li> <li>■ approach to reviewing Centre-adapted assessments, and</li> <li>■ training in relation to application of assessment criteria for the entry level mark schemes</li> </ul>	<p>Condition FSM4.2</p> <p>Condition C1</p> <p>Condition C2.5</p> <p>Condition G9.2</p> <p>Condition H1.1</p> <p>Condition H5</p>
<p><b>Approach to marking</b></p> <ul style="list-style-type: none"> <li>■ The steps taken to identify the risk of any Adverse Effect which may result from the awarding organisations approach to marking assessments (and to Moderation and monitoring where appropriate).</li> <li>■ Where such a risk has been identified, the steps taken to prevent that Adverse Effect or, where it</li> </ul>	<p>Condition FSM4.2</p> <p>Condition A6</p> <p>Condition D1</p> <p>Condition H1</p> <p>Condition H2</p> <p>Condition H5</p>

cannot be prevented, to mitigate that Adverse Effect.	
<p><b>Moderation of Centre-marked assessments</b></p> <p>Approach to Moderation of marking at entry level, where relevant.</p>	<p>Condition C1</p> <p>Conditions C2.1 and C2.2(j)</p> <p>Condition H2</p>
<b>SECTION 4: STANDARD SETTING &amp; MAINTENANCE</b>	
<p><b>Approach to ensuring decisions in relation to standard setting follow an appropriate technical methodology and have appropriate scrutiny.</b></p> <ul style="list-style-type: none"> <li>■ An explanation of the technical methodology employed in the process, including the personnel involved and their roles.</li> <li>■ An explanation of how the decisions from the process are approved within the awarding organisation and the personnel involved in this.</li> </ul>	<p>Condition FSM5</p> <p>Condition D1</p> <p>Condition H3</p>
<p><b>Approach to ensuring decisions in relation to standard setting are based on an appropriate range of qualitative and quantitative evidence.</b></p> <ul style="list-style-type: none"> <li>■ Details of the range of evidence used to inform decisions and the weight given to different sources.</li> <li>■ A rationale for why this approach is optimal, in light of the assessment design/approach and cohort make-up.</li> </ul>	<p>Condition FSM5</p> <p>Condition D1</p> <p>Condition H3</p>
<p><b>Approach to ensuring decisions in relation to standard setting promote comparability, over time and between awarding organisations, and are kept under review.</b></p> <ul style="list-style-type: none"> <li>■ Details of how comparability between different versions of assessments and different types of assessment (e.g. online vs paper-based) is ensured, both where these are available at the same time and on an ongoing basis.</li> <li>■ For on-demand assessments, details of how and when remedial action is taken when emerging</li> </ul>	<p>Condition FSM5</p> <p>Condition D1</p> <p>Condition H3</p>

<p>evidence regarding an existing assessment suggests previous decisions in relation to standard setting may need reconsidering.</p> <ul style="list-style-type: none"><li>■ Details of how evidence generated in line with any requirements set by Ofqual under Condition FSE5.2(a) in relation to inter-awarding organisation comparability will be used to inform decisions on standard setting.</li></ul>	
---	--

Not yet in force

# Guidance

## Guidance on interpretation of the subject content

The subject content for functional skills qualifications in mathematics is set out in the Department for Education's 'Subject content functional skills: Mathematics',<sup>6</sup> document reference DFE-00046-2018 (the 'Content Document').

Condition FSM1.1(c) requires awarding organisations to interpret the Content Document in line with any requirements, and having regard to any guidance, published by Ofqual.

We set out our guidance for the purposes of Condition FSM1.1(c) below.

### Assessing content statements at the appropriate level

We expect the Level of Demand of questions and tasks in relation to all content statements, and what they expect of Learners, to be appropriate to the level of the qualification.

### Guidance on problem solving

The Content Document states that functional skills qualifications in mathematics need to provide assessment of Learners' underpinning skills – defined as 'the ability to do maths when not as part of a problem'<sup>7</sup> – as well as their ability to apply mathematical thinking to solve problems.<sup>8</sup>

It is the curriculum intention that questions or tasks that test problem solving 'should not seek to obscure or add additional mathematical complexity beyond the level of the qualification'.<sup>9</sup>

The Content Document goes on to set out a list of six generic attributes that may serve to indicate whether or not a particular question or task tests problem solving. It is our expectation that, at all levels, all questions and tasks that test problem solving will be likely to have both attributes A and C –

---

<sup>6</sup> [www.gov.uk/government/publications/functional-skills-subject-content-mathematics](http://www.gov.uk/government/publications/functional-skills-subject-content-mathematics)

<sup>7</sup> Content Document, fn. 1, p. 3.

<sup>8</sup> Content Document, p. 4.

<sup>9</sup> Content Document, p. 19.

*A. Tasks that have little or no scaffolding: there is little guidance given to the student beyond a start point and a finish point. Questions do not explicitly state the mathematical process(es) required for the solution.*

...

*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.*

However, the presence or absence of each of the other four attributes will depend upon the nature and level of the question or task –

*B. Tasks that provide for multiple representations, such as the use of a sketch or a diagram as well as calculations.*

...

*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.*

It may be that apart from attributes A and C, a problem solving question or task has none of the other attributes.

We expect problem solving questions and tasks to involve the type of cognitive operations and processes typically encountered in everyday life. The context within which a question or task is set should be relevant and not superfluous to the question or task.

The expectations as to what problem solving questions and tasks should entail – such as the number of steps involved – as well as general expectations around Learners' abilities are set out in the introductory paragraphs to the relevant 'solving mathematical problems and decision making' section for each level. These are summarised in Table 1 below.

Table 1

	Learners should be able to...		The context within which each question or task is set...
	recognise and obtain...	address individual problems...	
<b>Entry 1</b>	a solution to a <b>simple</b> problem, i.e. one which requires working through <b>one</b> step or process	each of which draws upon knowledge and/or skills from <b>one</b> of the three areas from the subject content	should be <b>familiar</b> to all students and <b>easily described</b>
<b>Entry 2</b>	a solution to a <b>simple</b> problem, i.e. one which requires working through <b>one</b> step or process	each of which draws upon knowledge and/or skills from <b>one</b> of the three areas from the subject content	should be <b>familiar</b> to all students and <b>easily described</b>
<b>Entry 3</b>	a solution to a <b>simple</b> problem, i.e. one which requires working through <b>one</b> step or process	each of which draws upon knowledge and/or skills from <b>one</b> of the three areas from the subject content	should be <b>familiar</b> to all students
<b>Level 1</b>	a solution or solutions to a <b>straightforward</b> problem, i.e. one that requires students to <b>either</b> work through <b>one</b> step or process, or to work through <b>more than one</b> connected step or process	some of which draw upon a combination of <b>any two</b> of the three areas from the subject content and require students to <b>make connections</b> between those content areas	will require some <b>comprehension</b> in order to independently identify and carry out an appropriate mathematical approach
<b>Level 2</b>	a solution or solutions to a <b>complex</b> problem, i.e. one which requires a <b>multistep</b> process, typically requiring planning and working through <b>at least two</b> connected steps or processes	some of which draw upon a combination of <b>all three</b> areas from the subject content and require students to <b>make connections</b> between those content areas	will require <b>interpretation and analysis</b> in order to independently identify and carry out an appropriate mathematical process or processes



Specific expectations as to the abilities that Learners must demonstrate in relation to problem solving are set out in the bullets in the 'solving mathematical problems and decision making' section for each level.

In our requirements under Condition FSM4.1, we state that in the assessment(s) for a functional skills qualification in mathematics, an awarding organisation must sample as much of the subject content as practicable. As part of this, in each assessment or pair of assessments, we expect an awarding organisation to cover a reasonable balance of the problem solving abilities set out in the bulleted list for each level.

### **Guidance on assessing underpinning skills**

Questions or tasks assessing underpinning skills may be presented either in a given context or in the abstract, without a context.

Where a question or task assessing underpinning skills is presented in a context, an awarding organisation should ensure that the context does not undermine the targeting of the relevant skills. For example, an unduly long or complex context could be a test of the Learner's comprehension of that context rather than a valid test of the relevant skills.

## Guidance on assessment availability

We have not set any requirements with respect to when an awarding organisation must conduct assessments for a functional skills qualification in mathematics that it makes available.

This means that an awarding organisation may choose its own approach to when assessments are taken. It may, for example, choose to set a number of assessment windows each year, and/or it may offer 'on-demand' assessments which can be taken by a Learner at any time.

Whatever approach an awarding organisation adopts to the availability of assessments, it must ensure that it meets the requirements in the General Conditions of Recognition in relation to the maintenance of standards, comparability and avoiding predictability.<sup>10</sup>

Different approaches to assessment availability will give rise to different risks with respect to these issues and, as outlined in our requirements for the qualification, we will expect an awarding organisation to set out in its assessment strategy how it has sought to identify and deal with such risks.

---

<sup>10</sup> For example, Conditions D1, G1, G9, H2 (where applicable) and H3.

## **Guidance on notifying Ofqual of proposal to make qualification available**

Condition FSM3.1(a) states that an awarding organisation must 'promptly' inform Ofqual that it proposes to make available a functional skills qualification in Mathematics.

We expect an awarding organisation to provide notification to us promptly following a firm business decision to develop the qualification and make it available. The purpose of this notification is to allow Ofqual to plan its technical evaluation of the qualification before it is made available.

Not yet in force

## Guidance on standard setting for functional skills qualifications in mathematics

Condition FSM5.2(b) allows us to specify requirements and guidance in relation to the setting of specified levels of attainment for functional skills qualifications in mathematics.

We set out below our guidance for the purposes of Condition FSM5.2(b).

Condition FSM5.3 states that in setting the specified levels of attainment for a functional skills qualification in mathematics which it makes available, an awarding organisation must have regard to an appropriate range of qualitative and quantitative evidence.

Condition FSM5.4 states that such evidence will only be appropriate if it includes evidence of –

- (a) the Level of Demand of the assessments for that qualification,
- (b) the level of attainment demonstrated in those assessments by –
  - (i) an appropriately representative sample of Learners taking that qualification, or
  - (ii) individuals (whether Learners or otherwise) as part of robust technical pre-testing of those assessments,
- (c) where available, the level of attainment demonstrated by Learners taking that qualification in a –
  - (i) prior assessment (which was not for that qualification), whether or not that assessment was for a regulated qualification, or
  - (ii) prior qualification, whether or not that qualification was a regulated qualification, and
- (d) following the first time that a Component designed in line with these Subject Level Conditions is awarded, the level of attainment demonstrated by Learners who have previously been awarded that Component.

Without prejudice to any requirements that Ofqual may set in relation to the weight to be given to evidence in the first awards, examples of the evidence that may be used by an awarding organisation in setting the specified levels of attainment for a functional skills qualification in mathematics which it makes available may include –

- question papers/tasks and final mark schemes,

- senior Assessor input into decisions, for example comments on how the assessments have worked or are likely to work, and recommendations for the setting of specified levels of attainment,
- technical information about how the assessments, and/or any similar assessments previously and concurrently available, have functioned, for example mark distributions, mean marks, standard deviations, item-level statistics,
- samples of current Learners' work selected from a range of Centres and assessed/Moderated by Assessors/moderators whose work is known to be reliable,
- details of changes in entry patterns and choices of options,
- archive Learners' work exemplifying specified levels of attainment in previous assessments for the qualification, together with the relevant question papers/tasks and mark schemes,
- inter-awarding organisation evidence for functional skills qualifications in mathematics,
- pertinent material deemed to be of equivalent standard from similar qualifications or other relevant qualifications, and
- information on Learners' performance in previous assessments for the qualification.

In addition, in setting the specified levels of attainment for a functional skills qualification in mathematics that it makes available, we expect an awarding organisation to have regard, as appropriate, to the level of attainment demonstrated by Learners who have taken a pre-reform functional skills qualification in mathematics. We expect the weight placed on such evidence to decrease over time as the awarding organisation builds an archive of evidence of the level of attainment demonstrated by Learners in the reformed qualification.

In determining whether it has sufficient evidence of the level of attainment demonstrated, or likely to be demonstrated, in the assessments for a functional skills qualification in mathematics by an appropriate percentage of the Learners taking that qualification, an awarding organisation should consider whether the marks on its system, or the equivalent information it has available, reflect –

- all possible routes through the qualification and/or Component, and
- a representative proportion of Learners' marks for, or likely to be achieved in, the qualification and/or Component.

In setting the specified levels of attainment for a functional skills qualification in mathematics that it makes available, we expect an awarding organisation to use the appropriate balance of evidence for –

- its assessment approach, and
- the cohort taking the assessment.

For example, in a sessional award and where prior attainment data is available for many or most Learners, an awarding organisation might combine –

- senior Assessor judgement regarding the Level of Demand of the relevant assessment,
- qualitative and quantitative evidence of Learners' actual attainment in the assessment, and
- information regarding Learners' prior attainment in other assessments.

In an on-demand award and where there is little or no prior attainment data available for Learners, an awarding organisation might –

- when an assessment is first introduced, place greater weight on senior Assessor judgement regarding its Level of Demand, using a robust and recognised technical methodology, and
- incorporate consideration of qualitative and quantitative evidence of Learners' actual attainment in that assessment, and/or other versions of that assessment, once that evidence becomes available, and before results are issued.