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Qualification Specification

Highfield Functional Skills Qualification in Mathematics at Level 1 and Highfield Functional Skills Qualification in Mathematics at Level 2

Qualification Number (Level 1): 601/7675/1

Qualification Number (Level 2): 601/7676/3

Version 2.2 April 2018

Contents

Introduction	4
Qualification Overview	4
Key facts	4
Entry requirements	4
Age Ranges	4
Geographical coverage	5
Centre requirements	5
Guidance on delivery	5
Guidance on External Assessment	6
On screen Assessment	6
Paper-based assessment	6
Guidance on Results Notification and Certification	7
Tutor requirements	7
Reasonable adjustments and special considerations	7
ID requirements	8
Progression opportunities	8
Useful websites	8
Recommended training materials	8
Qualification structure	10
Highfield Functional Skills Qualification in Mathematics at Level 1.....	10
Highfield Functional Skills Qualification in Mathematics at Level 2.....	11
Unit Specification	12
Highfield Functional Skills Qualification in Mathematics at Level 1.....	12
Highfield Functional Skills Qualification in Mathematics at Level 2.....	13
Appendix 1: Recommended Delivery Programme	14
Appendix 3: Highfield Functional Skills Quality Assurance Process (L1 and L2)	15

Appendix 4: Sample Assessment Material 16

Highfield Functional Skills Qualification in Mathematics at Level 1..... 16

Highfield Functional Skills Qualification in Mathematics at Level 2..... 17

Version Updates

V2.0	May 2017	Branding changed from HABC to Highfield Qualifications
V2.1	December 2017	TQT added (see Key Facts)
V2.2	April 2018	Paper-based examinations will be sent to your centre upon registering learners. Subsequently, the requirement to return unused paper-based examinations to Highfield within 2 weeks of the examination scheduled date has been removed
V2.2	April 2018	On screen examinations may be taken at any time within 90 days of the date for which the examination is scheduled.

Highfield Functional Skills Qualifications in Mathematics at Level 1 and Level 2

Introduction

This qualification specification is designed to outline all you need to know to offer Highfield Functional Skills Qualification in Mathematics at Level 1 and/or Highfield Functional Skills Qualification in Mathematics at Level 2 in your Centre. Staff involved in the delivery and assessment of these qualifications must have access to, and understand the requirements in, this document. If you have any further questions, please contact your Highfield account manager.

The specification should be used in conjunction with the following document, which is available to download from our website:

- *Highfield Qualifications' Functional Skills Qualifications Handbook*

Qualification Overview

The Highfield functional skills qualifications in mathematics at level 1 and level 2 have been accredited by the regulators of England (Ofqual).

These qualifications are designed for learners who wish to develop their skills in mathematics to help them gain the most from work, education and everyday life. The assessment requires learners to apply skills-based and problem-solving techniques in realistic settings as determined by a set of skills standards. The qualifications support progression to further study (e.g. GCSE) and are suitable for delivery in a wide range of learning environments either as stand-alone qualifications or as part of a larger programme of study.

Each qualification consists of ONE mandatory component and is assessed by an externally set assessment (paper-based or on-screen).

The qualification outcome is pass or fail.

Key facts

	Level 1	Level 2
Qualification Number	601/7675/1	601/7676/3
Guided Learning Hours	45	45
Total Qualification Time	50	55

Entry requirements

There are no formal entry requirements for learners wishing to take these qualifications. Centres are however advised to assess a learner's ICT skills prior to registering them for on screen assessment. Paper-based assessment should be used for learners with limited ICT skills.

Age Ranges

Functional skills qualifications are open to learners of all ages although they are intended for learners over the age of 14.

Geographical coverage

These qualifications are suitable for delivery in England.

Centre requirements

Approved Centres are required to have a suitable delivery environment in line with the *Highfield Qualifications' Centre Approval Guidelines* and an assessment environment that complies with the *Highfield Qualifications' Examination & Invigilation Regulations*.

Guidance on delivery

Highfield functional skills qualifications in mathematics lend themselves to several different modes of delivery, examples of which are:

- classroom delivery: a learner attends taught sessions with further work given as homework (self-study);
- distance learning (self-study): a learner uses resources (paper-based or e-learning) and completes tasks independently with remote tutor/assessor support;
- embedded learning: functional skills in Mathematics can be embedded within other taught programmes ; or
- blended learning: a mixture of 2 or more of the above modes.

The GLH is 45 hours; teaching time depends largely on the mode of delivery and the individual learner's needs.

The course must be developed in accordance with the skills standards and coverage and range prescribed in this specification and allow learners to apply and transfer skills in real-life scenarios.

To effectively deliver and assess this qualification, Centres are recommended not to exceed the ratio of 1 qualified tutor/assessor to 20 learners in any one instance.

Highfield Qualifications recommends that all learners undertake an **initial assessment*** prior to commencing the qualification. Learners who undertake an initial assessment should work towards achieving the qualification at least one level above that at which they are initially assessed in order to progress their skills.

It is also recommended that, after the completion of an initial assessment, learners undertake a **diagnostic assessment*** at the start of the qualification (note: this is a mandatory requirement for SFA-funded qualifications). The outcome of the diagnostic assessment should be used to inform the programme of delivery.

Wherever possible, the programme of delivery should be adapted in accordance with learners' needs and/or local circumstances.

See **Appendix 2** for Highfield's Recommended Delivery Programme.

* Highfield is pleased to offer its approved functional skills Centres complimentary access to **ForSkills**, an online teaching and learning platform for English and Maths. Please contact your account manager for details.

Guidance on External Assessment

This section provides guidance relating to the external assessment of the qualifications and should be read in conjunction with the *Highfield Qualifications' Functional Skills Qualifications Handbook*.

Level 1: Learners must successfully complete **1 external assessment**.

Level 2: Learners must successfully complete **1 external assessment**.

Highfield Qualifications' on-demand paper-based and on screen assessments for functional skills allow Centres the flexibility to set a date of assessment at a time convenient to both the Centre and the learner.

Centres are responsible for scheduling functional skills assessments and must inform Highfield of the intended assessment date prior to the assessment taking place. Centres can schedule assessments back-to-back and hold several sittings on the same day. Centres must inform Highfield of the date of scheduled assessments as these may be subject to external quality assurance visits from Highfield - see the *Highfield Qualifications' Examination and Invigilation Regulations (Functional Skills)*.

See the *Highfield Qualifications' Functional Skills Qualifications Handbook* for full instructions relating to on-screen and paper-based assessments.

All externally set assessments must be invigilated in line with *Highfield Qualifications' Examination & Invigilation Regulations (Functional Skills)*. Where possible, invigilators should not have delivered the qualifications to the learners they are invigilating.

On screen Assessment

On screen assessments are scheduled via Highfield Central. Once scheduled, learners have 90 days from the examination date in which to complete their examination.

Centres must install SecureClient to enable on screen assessment. Assessments can be accessed online or offline.

Online: assessments are accessed by a unique keycode and invigilator pin* which is generated upon scheduling the assessment. Assessments will automatically upload to Highfield upon completion of the assessment.

Offline: assessments will be available to download 24 hours prior to the scheduled assessment time and are accessed by a unique keycode and invigilator pin*, which is generated after scheduling the assessment. Once an assessment has been completed, Centres must connect to the internet to upload the assessment to Highfield within 2 working days of the assessment taking place.

*The keycode and invigilator pin are available in the invigilator screen of Highfield Surpass:

<https://habc.surpass.com/Login>

Paper-based assessment

Paper-based assessments are dispatched by Highfield and will be sent to centres upon purchasing registrations. All orders for paper-based assessments must be received by Highfield at least five working days before the examination.

Paper-based assessments are scheduled via Highfield Central. Papers will be dispatched to centres by secure post. Each paper is individually wrapped and must only be opened by the learner when instructed to do so by the invigilator at the start of the assessment. The learner must sign the declaration on the front of the assessment paper to confirm they removed the secure-wrapping themselves.

All paper-based assessments must be stored securely within the Centre as per the *Highfield Qualifications' Dispatch of Examinations & Assessment Materials Policy*.

Once an assessment has been completed, Centres must return assessment papers to Highfield within 2 working days of the assessment taking place.

Guidance on Results Notification and Certification

To achieve the Highfield Functional Skills Qualification in Mathematics at Level 1 and the Highfield Functional Skills Qualification in Mathematics at Level 2 learners must successfully pass the 1 mandatory assessment.

Highfield Qualifications has designed its marking schedule to ensure that Centres can be assured of a reliable service with the focus on minimising the wait for results. Highfield will inform Centres of the results via Highfield Central.

After successfully completing the assessment, a certificate will be issued.

If unsuccessful, learners may re-sit the assessment. Centres must select the re-sit option when scheduling a re-sit. Please note that there is a charge for each additional assessment taken. There is no limit to the number of attempts a learner may take, but Centres should provide appropriate support to prepare learners for the assessment.

Tutor requirements

Highfield Qualifications recommends nominated tutors hold, as a minimum, a level 2 qualification in Mathematics along with a suitable training/teaching qualification:

Suitable subject area qualifications may include:

- Level 2 Functional Skills Qualification in Mathematics;
- GCSE Maths (grade C or above); and/or
- A-Level Maths, or above.

Suitable teaching qualifications include:

- Level 3 PTLLS, or above;
- Level 3 Award in Education and Training, or above;
- Diploma or Certificate in Education;
- Bachelors or Masters Degree in Education;
- City and Guilds Teachers Certificate or equivalent;
- Level 3 or 4 NVQ in training and/or development; and/or
- Proof of at least 30 hours of training in any subject.

See also 'Guidance on Delivery' section.

Reasonable adjustments and special considerations

Highfield Qualifications has measures in place for learners who require additional support. Please refer to *Highfield Qualifications' Reasonable Adjustments Policy* for further information/guidance.

ID requirements

It is the responsibility of the centre to have systems in place to ensure that the person taking an assessment is indeed the person they are claiming to be. All centres are therefore required to ensure that each learner's identification is checked before they undertake the assessment. Highfield recommends the following as proof of a learner's identity:

- a valid passport (any nationality)
- a signed UK photocard driving licence
- a valid warrant card issued by HM forces or the police
- another photographic ID card, e.g. employee ID card, student ID card, travel card etc.

If a learner is unable to produce any of the forms of photographic identification listed above, a centre may accept another form of identification containing a signature, for example, a credit card. Identification by a third-party representative, such as a line manager, human resources manager or invigilator, will also be accepted.

For more information on learner ID requirements, please refer to the Highfield Qualifications' Core Manual.

Progression opportunities

On successful completion of this qualification, learners may wish to continue their development by undertaking one of the following qualifications:

After successfully completing the Highfield Functional Skills Qualification in Mathematics at Level 1:

- Highfield Functional Skills Qualification in Mathematics at Level 2
- GCSE Maths

After successfully completing the Highfield Functional Skills Qualification in Mathematics at Level 2:

- GCSE Maths
-

Useful websites

- www.highfieldabc.com
- <https://www.gov.uk/government/collections/functional-skills-qualifications-requirements>

Please contact your Highfield account manager for access to the following sites:

On-screen assessment

<https://habc.surpass.com/Login>

Maths resources (incl. initial assessment)

<http://skills.highfieldabc.com>

Recommended training materials

Level 1:

- Sanger, D. (2012) *Functional Skills Handbook for Mathematics Level 1*, Highfield International;
 - Sanger, D. (2012) *A Question of Functional Skills Workbook for Mathematics Level 1*, Highfield International.
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Level 2:

- Sanger, D. (2016) *Functional Skills Handbook for Mathematics Level 2*, Highfield International;
 - Sanger, D. (2016) *A Question of Functional Skills Workbook for Mathematics Level 2*, Highfield International.
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Qualification structure

Highfield Functional Skills Qualification in Mathematics at Level 1

Learners must complete 1 mandatory unit that must be achieved to complete the qualification.

Mathematics	100% of the qualification
<p>Externally assessed.</p> <p>Learners must complete 1 assessment that is set, marked and moderated by Highfield Qualifications.</p> <p>The assessment will test a learner's representing, analysing and interpreting skills using number, geometry and statistics.</p> <p>Duration of assessment: 2 hours</p> <p>Learners must answer a series of questions based on real-life contexts.</p> <p>Learners may use a calculator and a ruler.</p>	

The qualification outcome is pass or fail.

Highfield Functional Skills Qualification in Mathematics at Level 2

Learners must complete 1 mandatory unit that must be achieved to complete the qualification.

Mathematics	100% of the qualification
<p>Externally assessed.</p> <p>Learners must complete 1 assessment that is set, marked and moderated by Highfield Qualifications.</p> <p>The assessment will test a learner's representing, analysing and interpreting skills using number (including algebra), geometry and statistics.</p> <p>Duration of assessment: 2 hours</p> <p>Learners must answer a series of questions based on real-life contexts.</p> <p>Learners may use a calculator and a ruler.</p>	

The qualification outcome is pass or fail.

Unit Specification

Highfield Functional Skills Qualification in Mathematics at Level 1

Learners must demonstrate that they have met the skills standard for each component through assessment. The coverage and range determine the standard required to achieve the qualification.

Skill Standard	Coverage and Range	Assessment Weighting
<i>The learner will</i>	<i>The learner can</i>	
Representing		
1. Understand practical problems in familiar and unfamiliar contexts and situations, some of which are non-routine.	a) Understand and use whole numbers and understand negative numbers in practical contexts;	30-40%
2. Identify and obtain necessary information to tackle the problem.	b) Add, subtract, multiply and divide whole numbers using a range of strategies;	
3. Select mathematics in an organised way	c) Understand and use equivalences between common fractions, decimals and percentages;	
	d) Add and subtract decimals up to two decimal places;	30-40%
Analysing	e) Solve simple problems involving ratio, where one number is a multiple of the other;	
4. Apply mathematics in an organised way to find solutions to straightforward practical problems for different purposes.	f) Use simple formulae expressed in words for one- or two-step operations;	
5. Use appropriate checking procedures at each stage.	g) Solve problems requiring calculation with common measures, including money, time, length, weight, capacity and temperature;	30-40%
	h) Convert units of measure in the same system;	
	i) Work out areas and perimeters in practical situations;	
	j) Construct geometric diagrams, models and shapes;	30-40%
Interpreting	k) Extract and interpret information from tables, diagrams, charts and graphs;	
6. Interpret and communicate solutions to practical problems, drawing simple conclusions and giving explanations.	l) Collect and record discrete data and organise and represent information in different ways;	
	m) Find mean and range;	30-40%
	n) Use data to assess the likelihood of an outcome.	

Highfield Functional Skills Qualification in Mathematics at Level 2

Learners must demonstrate that they have met the skills standard for each component through assessment. The coverage and range determine the standard required to achieve the qualification.

Skill Standard	Coverage and Range	Assessment Weighting
<i>The learner will</i>	<i>The learner can</i>	
<p>Representing</p> <p>1. Understand routine and non-routine problems in familiar and unfamiliar contexts and situations.</p> <p>2. Identify the situation or problems and identify the mathematical methods needed to solve them.</p> <p>3. Choose from a range of mathematics to find solutions.</p>	<p>a) Understand and use positive and negative numbers of any size in practical contexts;</p> <p>b) Carry out calculations with numbers of any size in practical contexts, to a given number of decimal places;</p> <p>c) Understand, use and calculate ratio and proportion, including problems involving scale;</p> <p>d) Understand and use equivalences between fractions, decimals and percentages;</p> <p>e) Understand and use simple formulae and equations involving one- or two-step operations;</p> <p>f) Recognise and use 2D representations of 3D objects;</p> <p>g) Find area, perimeter and volume of common shapes;</p> <p>h) Use, convert and calculate using metric and, where appropriate, imperial measures;</p> <p>i) Collect and represent discrete and continuous data, using ICT where appropriate;</p> <p>j) Use and interpret statistical measures, tables and diagrams, for discrete and continuous data, using ICT where appropriate;</p> <p>k) Use statistical methods to investigate situations;</p> <p>l) Use probability to assess the likelihood of an outcome.</p>	30-40%
<p>Analysing</p> <p>4. Apply a range of mathematics to find solutions.</p> <p>5. Use appropriate checking procedures and evaluate their effectiveness at each stage.</p>		30-40%
<p>Interpreting</p> <p>6. Interpret and communicate solutions to multi-stage practical problems in familiar and unfamiliar contexts and situations.</p> <p>7. Draw conclusions and provide mathematical justifications.</p>		30-40%

Appendix 1: Recommended Delivery Programme

Induction	4hrs
<p>Completion of initial assessment.</p> <p>Introduction to qualification to include:</p> <ul style="list-style-type: none"> • delivery schedule; and • external assessment requirements. <p>Completion of diagnostic assessment. The outcome is used to agree an individual learning plan with each learner.</p>	
Teaching & Learning	36hrs
<p>The teaching and learning programme must be developed in accordance with the skills standards and coverage and range prescribed in this specification and allow the learners to apply and transfer skills to real life scenarios. Tutors may also wish to refer to the <i>National Standards for Numeracy</i> for further support with the course content.</p> <p>Functional skills in mathematics lends itself to a variety of different teaching and learning methods which can be adapted according to learners' needs.</p> <ul style="list-style-type: none"> • Classroom delivery: learner attends taught sessions with further work given as homework (self-study); • Distance learning (self-study): learner uses resources (paper-based or e-learning) and completes tasks independently with remote tutor/assessor support; • Embedded learning: functional skills in mathematics can be embedded within other taught programmes; or • Blended learning: mixture of two or more of the above modes. <p>Learners should be given the opportunity to:</p> <ul style="list-style-type: none"> • develop and improve their underpinning knowledge; and • apply skills in realistic functional scenarios 	
Practice Assessment	2.5hrs
<p>Learners should be given the opportunity to complete practice assessments. The tutor should monitor the learner's performance and provide appropriate feedback and support.</p> <p>Practice assessments for externally assessed components are available to download from www.highfieldabc.com.</p>	
External Assessment	2.5 hrs
<p>Learners complete 1 external assessment.</p> <p>(see the <i>Highfield Qualifications' Functional Skills Qualifications Handbook</i>)</p> <p>Highfield Qualifications marks and moderates the assessment.</p> <p>If successful, Highfield will inform Centre and certification will take place.</p> <p>If unsuccessful, Highfield will inform the Centre. The Centre arranges reassessment.</p>	
TOTAL GLH	45hrs

Appendix 3: Highfield Functional Skills Quality Assurance Process (L1 and L2)

Registration
Delivery
Centre schedules assessment
Learner takes externally set assessment
Highfield Qualifications marks and moderates assessment
Centre notified of result
Outcome of assessment: <ul style="list-style-type: none">▪ Pass see next step▪ Fail Centre supports learner and repeats assessment process
Certificate issued

Ongoing quality assurance (see *Highfield Qualifications' Monitoring Procedures for Centres*)

Appendix 4: Sample Assessment Material

Full practice examinations can be found on the Highfield website in both on screen or paper-based formats.

Highfield Functional Skills Qualification in Mathematics at Level 1

An estate agent sends you the details of three properties.

 <p>Property A Apartment/ Flat</p>	 <p>Property B House</p>	 <p>Property C Bungalow</p>
<p>Price: £109,995</p>	<p>Price: £120,500</p>	<p>Price: £122,999</p>
<p>One bedroom Small living area Garden (width 2.2m, length 4.1m)</p>	<p>Two bedrooms Big living area Garden (width 6.4m, length 5.6m)</p>	<p>Three Bedrooms Large living area Garden (width 7.2m, length 4.9m)</p>

You need to buy a property that has:

- at least 2 bedrooms;
- a good size living area; and
- a garden that is at least 30m².

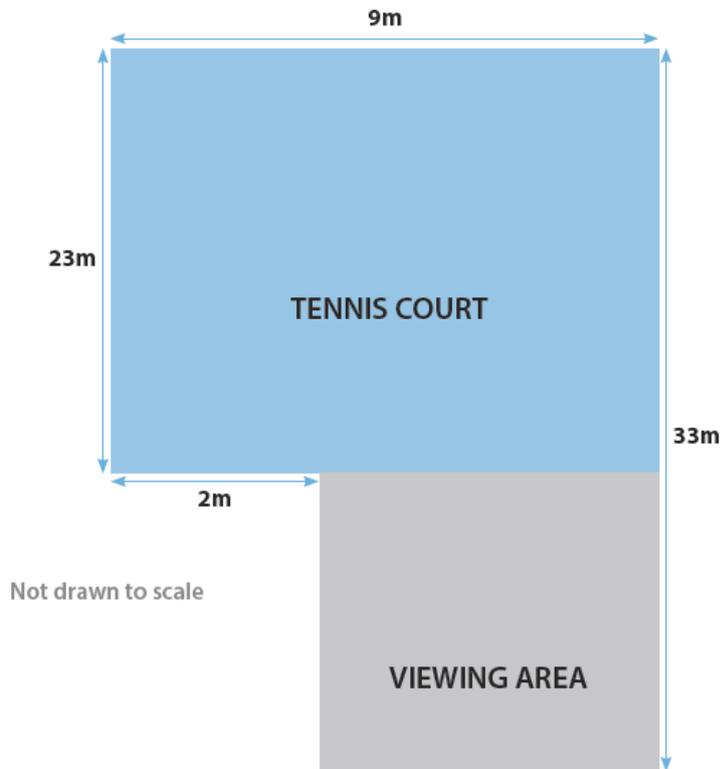
Your budget is £125,000.

Do these three properties meet your needs? Explain your answer.
Show your working out and write the answer in the box below.

(3 marks)

Highfield Functional Skills Qualification in Mathematics at Level 2

The tennis court area is shown below:



What is the total area and perimeter of the tennis court including the viewing area?
Show your working out and write the answer in the box below.

(4 marks)