

Qualifications

Functional skills

2007

Functional skills standards



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Introduction

Functional skills in English, mathematics and information and communication technology (ICT) help people to gain the most out of life, learning and work.

The skills are learning tools that enable people:

- to apply their knowledge and understanding to everyday life
- to engage competently and confidently with others
- to solve problems in both familiar and unfamiliar situations
- to develop personally and professionally as positive citizens who can actively contribute to society.

The functional skills standards are technical documents that define and differentiate the skill requirements for the functional skills pilot qualifications. These standards remain as draft versions for the duration of the pilot.

The format and presentation of the standards differs slightly across English, mathematics and ICT. These differences are necessary for various reasons, including the disparate nature of these bodies of knowledge.

By accessing and engaging with a wealth of experience and expertise throughout the development of the standards, QCA has carefully tailored the standards documents to their specific subject areas.

While the standards are intended for qualification experts within awarding bodies, a wider audience can interpret or 'map' them to predict what minimum requirements are likely to be at specific skill levels. For this reason, the standards are of interest to stakeholders beyond awarding bodies.

Functional skills standards – understanding the levels

The subject content set out in the coverage and range sections of the functional skills standards provides an indication of the type of subject matter that learners are expected to use when applying their functional skills. These sections are not lists that learners must confine themselves to, but are intended as a helpful guide to the type of content that will be expected in functional English, mathematics and ICT qualifications.

The standards explain the difference between levels for skills-based qualifications. They recognise that skills are demonstrated through their performance and that difficulty and level of demand are determined by many factors. The standards include level differentiation pages for each subject that explain the various factors affecting the level of demand when a learner is faced with a particular task. These are: **complexity**, **technical demand**, **familiarity** and **independence**. The level of a functional skills qualification is determined by:

- the complexity of situations and activities
- the technical demand associated with these activities
- a learner's level of familiarity with the task or activity
- the level of independence with which a learner can complete the activity.

It is important to understand that the **skill standards** and **performance statements** are key factors in determining a learner's level of functional skills proficiency or 'functionality'. The coverage and range are not prescriptive, but only indicative. A learner may understand the content within the coverage and range column at a given level – whether this relates to appreciating a particular point, knowing certain facts or calculations, or understanding various concepts or notions – but the functional skill level is determined by the learner's ability to use and apply this information for 'real-life' and purposeful activities.

The content that a learner engages with for a level 2 functional task or activity, for example, could be from a range of higher or lower levels. It is the application of the content, the process skills, the outcome, and the interplay of the level differentiation factors that determine the level, and not the content in isolation.

When examining the coverage and range statements it might be helpful to consider their equivalent level in other contexts, such as the National Qualifications Framework (NQF) or Qualifications and Credit Framework (QCF), national curriculum levels, and other relevant standards. However, the level of demand can be altered, and is often

increased, by the additional factors outlined above when skills and knowledge are applied in different contexts and for a range of purposes.

For functional skills assessment, learner performance will be measured at the QCF/NQF levels denoted by the qualification: Entry 1, Entry 2, Entry 3, level 1 and level 2. Learners will be expected to effectively use and apply knowledge and skills that appear in the relevant coverage and range sections to demonstrate functional skills competencies, as described in the relevant skills standard and performance statements, across all of the subject areas. It is worth noting that each level of the standards is incorporated into the level above.

English

Introduction to English

The term ‘functional’ should be considered in the broad sense of providing learners with the skills and abilities they need to take an active and responsible role in their communities, everyday life, the workplace and educational settings. Functional English requires learners to communicate in ways that make them effective and involved as citizens, to operate confidently and to convey their ideas and opinions clearly.

The aim of the English standards is to encourage learners to demonstrate their speaking and listening, reading and writing skills in a range of contexts and for various purposes. They are essentially concerned with developing and recognising the ability of learners to apply and transfer skills in ways that are appropriate to their situation.

They are flexible enough to be interpreted in a variety of circumstances, for example in school and workplace settings, by a range of users. They provide the framework for assessment, rather than the detail.

It is important that users have a shared understanding of the language used – the explanations that preface the standards for speaking and listening, reading and writing clarify some of the key terms.

Functional English – level differentiation

Functional English provides the basis for effective communication and understanding across the three subject skill areas: speaking and listening; reading; and writing. Learners need to select and use these skills appropriately in order to function as effective citizens, and to benefit from them in their life, learning and work. It is important that these skills can be used in ways that are appropriate to their context, as this is what makes them ‘functional’ in real-life situations.

There are many factors that determine the level of difficulty posed by a situation that requires the use of functional skills. These factors include a learner’s familiarity with a situation, its complexity and technical demand, as well as the ability to resolve an issue or complete a necessary activity independently. The level of demand may vary from a simple discussion or exchange about a familiar subject, through to an extended piece of writing that persuasively communicates information and ideas to a diverse audience. The level differentiation factors are outlined below:

- **Complexity:** Real-life situations, as they arise, are often quite complex. Identifying the various components within a situation, the steps needed to solve a problem or complete a task, and the accessibility of the activity itself, all contribute to the level of complexity.
- **Familiarity:** This reflects the extent to which a learner recognises elements of a problem or situation, utilising skills and understanding developed in other contexts, and relating this experience to make sense of a situation. In transferring or applying skills and understanding, the individual may need to adapt or reorganise their established approach in order to tackle the situation effectively.
- **Technical demand:** This reflects the range of knowledge, skills and techniques that an individual is required to draw upon in order to tackle a particular situation. These are defined in various ways, for example as national curriculum levels.
- **Independence:** This relates to the level of autonomy that learners demonstrate when tackling a problem or completing an activity. A learner’s problem-solving skills are a key element of their independence, allowing them to make confident decisions and to demonstrate their skills, without requiring the full support of others.

Entry level

The context is familiar and accessible to the learner. The English skills demanded by the situation or problem are clear and straightforward. The learner demonstrates some awareness of audience and purpose, recognising formal and informal contexts and applying their knowledge and skills accordingly. The skills or techniques required may not be specific to the situation or problem. Guidance and direction are provided.

Level 1

The context may be less familiar than at Entry level but is accessible to the learner. The English skills demanded are more precise, requiring a greater level of accuracy and judgement when applied to a specific situation or problem. Each situation requires an organised approach and incorporates various options for selection. Learners evaluate the usefulness of a range of texts and/or information sources as well as making choices about the suitability of their responses and solutions, in terms of style, vocabulary, presentation and format. Guidance is provided but autonomous decisions are required to find solutions.

Level 2

At level 2, learners analyse multi-faceted tasks where the context may be unfamiliar and the situation or problem needs to be identified. The usefulness or validity of the tools available may not be immediately apparent in all situations and there may be more than one solution. An initial review and analysis of the task should provide some insight into the key objectives, audience and purpose that a learner will need to consider before determining an appropriate response or solution. Guidance may be provided, but choices are independently made and evaluated.

Speaking and listening

Within the standards, the term **discussion** is used in its widest sense to mean the spoken exchange of information, ideas or opinions between two or more people in a formal or informal context.

Contributions to discussion are used as indicators of progression in this area. So, for example, **active contributions** at Entry 2 are likely to be brief responses that are relevant to the topic. **More extended contributions** at Entry 3 might be characterised by the development of ideas in more depth, involving longer exchanges. Performance at level 2 is indicated by the **range of contributions**. This involves contributions from perspectives other than the speaker's own, about topics beyond their own immediate experience.

Understanding and selecting appropriate levels of formality is also an important indicator of progression. To develop their understanding learners need opportunities to use spoken language in contexts that stretch them. These contexts may include **those with which they are unfamiliar**, such as other groups of pupils, employers or new employees. Examples are face-to-face situations such as delivering presentations, or more remote contexts such as telephone exchanges with people unknown to the learner.

Speaking and listening: Entry 1–2

Level	Skill standard	Coverage and range
Entry 1	Participate in and understand the main points of simple discussions/exchanges about familiar topics with another person in a familiar situation.	<ul style="list-style-type: none"> • understand the main points of short explanations and listen for specific information • follow instructions • respond appropriately to comments and requests • make contributions clearly, to be heard and understood • ask questions using appropriate terms to obtain specific information <p>when listening, talking and discussing in familiar situations.</p>
Entry 2	Participate in discussions/exchanges about familiar topics, making active contributions with one or more people in familiar situations.	<ul style="list-style-type: none"> • listen for and identify the main points of short explanations and instructions • speak clearly to be heard and understood • express simply one's own feelings and opinions and understand those expressed by others • express clearly statements of fact, short accounts and descriptions • ask and respond to straightforward questions • follow the gist of discussions and make appropriate contributions <p>when listening and talking and discussing in familiar situations.</p>

Speaking and listening: Entry 3 – level 1

Level	Skill standard	Coverage and range
Entry 3	Respond appropriately to others and make more extended contributions in familiar formal and informal discussions/exchanges.	<ul style="list-style-type: none"> • use techniques to clarify and confirm understanding • give own point of view and listen to and respond appropriately to others' points of view • use formal and informal language as appropriate • follow the main points of discussions and make relevant contributions, respecting others' turn-taking rights <p>in familiar formal and informal exchanges and discussions.</p>
Level 1	Take full part in formal and informal discussions/exchanges.	<ul style="list-style-type: none"> • make relevant contributions to discussions, responding appropriately to others • prepare for and contribute to formal discussion of ideas and opinions • be flexible in discussion, making different kinds of contributions • present information/points of view clearly and in appropriate language <p>in formal and informal exchanges and discussions.</p>

Speaking and listening: level 2

Level	Skill standard	Coverage and range
Level 2	Make a range of contributions to discussions and make effective presentations in a wide range of contexts.	<ul style="list-style-type: none"> • listen to complex information and give a relevant, cogent response in appropriate language • present information and ideas clearly and persuasively to others • adapt contributions in discussions to suit audience, purpose and situation • make significant contributions to discussions, taking a range of roles and helping to move discussion forward to reach decisions <p>in a wide range of contexts, including those that involve others who are unfamiliar.</p>

Reading

Reading **texts** may require learners to interpret graphs, diagrams, illustrations and features of layout that, together with the written element, contribute to the meaning of a text.

In reading, complexity, purpose, length and variety of texts are the key indicators of progression through the standards. In making judgements about the suitability of texts, all of these factors need to be considered. Short texts are not necessarily simple, and texts can be lengthy without being complex. At Entry 1, a **short, simple text** might be a set of directions or the text of a brief email message. At Entry 2, **straightforward texts** indicates uncomplicated factual content, rather than content dealing with complex ideas. This might be a short article in a newspaper about a local issue or a series of instructions about operating equipment or dealing with customers.

Reading: Entry 1–3

Level	Skill standard	Coverage and range
Entry 1	Read and understand short, simple texts.	<ul style="list-style-type: none"> understand short texts on familiar topics and experiences read and understand simple, regular words <p>in texts that explain, describe and narrate, on paper and on screen.</p>
Entry 2	Read and understand straightforward texts.	<ul style="list-style-type: none"> understand the main events of chronological and instructional texts read and understand simple instructions and directions read and understand high frequency words and words with common spelling patterns use knowledge of alphabetical order to locate information <p>in texts that inform, describe and narrate, on paper and on screen.</p>
Entry 3	Independently read and understand straightforward texts for a purpose.	<ul style="list-style-type: none"> understand the main points of texts (including diagrams or graphical representations). Written texts are of more than one paragraph at this level obtain specific information through detailed reading scan texts and use organisational features to locate information (for example contents, index, menus) use strategies to read and understand texts in different formats (for example web page, application form) <p>in texts that inform, instruct, describe and narrate, on paper and on screen.</p>

Reading: level 1–2

Level	Skill standard	Coverage and range
Level 1	Read and understand a range of texts.	<ul style="list-style-type: none"> • identify the main points and ideas and how they are presented in different texts • understand texts in detail • read and understand texts and take appropriate action <p>in a range of texts including reports, instructional, explanatory and persuasive texts, on paper and on screen.</p>
Level 2	Compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions.	<ul style="list-style-type: none"> • select and use different types of texts to obtain relevant information • read and summarise succinctly information/ideas from different sources • identify the purposes of texts and comment on how effectively meaning is conveyed • detect point of view, implicit meaning and/or bias • read and actively respond to different texts (for example, reply to each point in a letter of complaint) <p>in a wide range of texts for different purposes, on paper and on screen.</p>

Writing

The term **documents** is used to describe texts written to communicate with others for a particular purpose. The range here might include conveying information, ideas, opinions or requests.

In writing, length, level of detail, awareness of purpose, adaptability and complexity are the key indicators of progression. For example, at Entry 2, **short documents** may be the few sentences required to pass on a message about arrangements that have been changed. At Entry 3, where learners are required to **make some adaptation**, this might be adapting a straightforward set of instructions for different readers. At level 2, learners **use a range of different styles** that may require the selection of technical vocabulary where appropriate, using evidence to support argument, persuasive techniques and knowledge about how and when to use formal and informal language. Learners at this level organise their ideas into extended responses, making informed decisions about structure and presentation.

Examples of range include formal letters of complaint, newspaper or magazine articles, letters of application and reports.

It is not the intention at this point to specify details such as document length. Further clarification will be provided as development continues, through trialing assessment and exemplification.

Writing: Entry 1–3

Level	Skill standard	Coverage and range
Entry 1	Write short, simple sentences.	<ul style="list-style-type: none"> • use written words and phrases to present information • construct simple sentences and punctuate using capital letters and full stops • spell correctly some personal or very familiar words • use upper and lower case <p>in documents such as forms, messages or notes, on paper and on screen.</p>
Entry 2	Write short documents with some awareness of the intended audience.	<ul style="list-style-type: none"> • use written words and phrases to record/present information • construct compound sentences using common conjunctions and punctuate correctly using capital letters, full stops and question marks • spell correctly a range of common words • produce legible text <p>in documents such as forms, messages or simple narratives, on paper and on screen.</p>
Entry 3	Write documents with some adaptation to the intended audience.	<ul style="list-style-type: none"> • plan, draft and organise writing • sequence writing logically and clearly • use basic grammar including appropriate verb tense and subject/verb agreement • spell correctly and check work for accuracy <p>in documents such as forms, emails, letters, simple instructions or short reports, on paper and on screen.</p>

Writing: level 1–2

Level	Skill standard	Coverage and range
Level 1	Write documents to communicate information, ideas and opinions using formats and styles suitable for their purpose and audience.	<ul style="list-style-type: none"> • write clearly and coherently including an appropriate level of detail • present information in a logical sequence • use language, format and structure suitable for purpose and audience • use correct grammar including subject/verb agreement and correct and consistent use of tense • ensure written work includes accurate grammar, punctuation and spelling and that meaning is clear <p>in a range of documents on paper and on screen.</p>
Level 2	Write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively.	<ul style="list-style-type: none"> • present information/ideas concisely, logically and persuasively • present information on complex subjects concisely and clearly • use a range of different styles of writing for different purposes • use a range of sentence structures, including complex sentences • punctuate accurately using commas, apostrophes and inverted commas • ensure written work has accurate grammar, punctuation and spelling and that meaning is clear <p>in a wide range of documents on paper and on screen.</p>

Mathematics

Introduction to mathematics

The term 'functional' should be considered in the broad sense of providing learners with the skills and abilities they need to take an active and responsible role in their communities, everyday life, the workplace and educational settings. Functional mathematics requires learners to use mathematics in ways that make them effective and involved as citizens, to operate confidently in life, and to work in a wide range of contexts.

The mathematics standards are essentially concerned with developing and recognising the ability of learners to apply and transfer skills in ways that are appropriate to their situation.

They are flexible enough to be interpreted in a variety of circumstances, for example in school and workplace settings, by a range of users. They provide the framework for assessment, rather than the detail.

For mathematics to be useful, learners must have the skills and confidence to apply, combine and adapt their mathematical knowledge to new situations in their life and work. The capacity to identify and understand the role that mathematics plays in the world is crucial in enabling learners to function as effective citizens.

The standards are structured in two sections: process skills and levels (Entry 1 to level 2).

Functional mathematics – process skills

Fundamental to individuals being able to use mathematics effectively in life and work is their ability to understand and make sense of mathematical information, to use and process that information, to interpret and analyse the results of their activity, and to present this to others. These process skills form the basis of the functional skills standards for mathematics and apply at all levels.

Developing these skills will provide the tools that learners need in order to tackle situations involving mathematics in life and work. Process skills enable learners to:

- understand a situation
- choose an approach to tackle the problem
- formulate a model using mathematics
- use mathematics to provide answers

- interpret and check the results
- evaluate the model and approach
- explain the analysis and results
- apply and adapt this experience in other situations as they arise.

The key attributes of these process skills are presented below and should provide the framework for the delivery, development and assessment of functional mathematics.

Representing	Analysing	Interpreting
Making sense of situations and representing them	Processing and using mathematics	Interpreting and communicating the results of the analysis
<p>A learner can:</p> <ul style="list-style-type: none"> • recognise that a situation has aspects that can be represented using mathematics • make an initial model of a situation using suitable forms of representation • decide on the methods, operations and tools, including ICT, to use in a situation • select the mathematical information to use. 	<p>A learner can:</p> <ul style="list-style-type: none"> • use appropriate mathematical procedures • examine patterns and relationships • change values and assumptions or adjust relationships to see the effects on answers in the model • find results and solutions. 	<p>A learner can:</p> <ul style="list-style-type: none"> • interpret results and solutions • draw conclusions in light of the situation • consider the appropriateness and accuracy of the results and conclusions • choose appropriate language and forms of presentation to communicate results and conclusions.

Functional mathematics – level differentiation

This section identifies the level at which a learner applies the process skills and includes an indication of the performance, knowledge and scope required at each level. Levels relate to the complexity of a situation, the difficulty and range of mathematical techniques required to make sense of it, and the analysis and communication of findings. At each level, these build on and subsume the skills identified at the level(s) below. Levels are differentiated by the following:

- **Complexity.** Real-life situations, as they arise, are often quite complex. Identifying the separate areas of knowledge needed to tackle a situation, the steps needed to solve the problem and the accessibility of the problem itself (routine or non-routine) determines the level of complexity.

- **Familiarity.** This reflects the extent to which a problem or situation requires an individual to relate skills and understanding developed in other contexts to make sense of a new situation. In transferring skills and understanding, the individual may need to adapt or extend their knowledge in order to tackle the problem effectively.
- **Technical demand.** This reflects the range of knowledge, skills and techniques that an individual is required to draw on in order to tackle a problem. These are defined in various ways, for example in the national curriculum levels. Demand may vary from a simple calculation to a thorough analysis of a practical situation.
- **Independence.** This relates to the level of autonomy that learners apply to tackling a problem at each stage. It is closely related to the ability to apply problem-solving skills, so that at higher levels learners can demonstrate the ability to select and apply mathematical skills independently.

Entry level

The context is very familiar and accessible to the learner. The mathematics demanded by the situation or problem are simple, clear and routine. The techniques and procedures required are specific to the situation or problem. Guidance and direction are provided.

Level 1

The context may be less familiar than at Entry level but is accessible to the learner. The mathematics demanded are clear but with some non-routine aspects to the situation or problem. Methods and procedures may require selection and an organised approach. Models need to be selected and adapted. Guidance is provided but autonomous decisions are required to find solutions.

Level 2

In some respects the context is unfamiliar to the learner, and the situation or problem needs to be identified. The mathematics demanded may not be obvious in all situations and there will be non-routine aspects to the situation or problem. Methods may involve several steps and require identification of underlying mathematical structures and ways of describing them. Guidance may be provided but choices are independently made and evaluated.

Mathematics: Entry 1

The standard at Entry 1 is underpinned by the process skills of representing (making sense of situations and representing them), analysing (processing and using the mathematics) and interpreting (interpreting and communicating the results of analysis).

Performance	Coverage and range
	Content and skills are equivalent to national curriculum mathematics level 1 and the adult numeracy standards at Entry 1
<p>Learners can:</p> <ul style="list-style-type: none"> • understand simple mathematical information in familiar and accessible contexts and situations • use given methods and standard models to obtain answers to simple given practical problems that are clear and routine • generate results that make sense in relation to a specified task • describe solutions to simple given practical problems in familiar contexts and situations. 	<p>Learners can:</p> <ul style="list-style-type: none"> • understand and use numbers up to 10 • use everyday language to describe the properties of size and measurements including length, width, height and weight, and make simple comparisons • use everyday language to describe position • recognise and select coins and notes • recognise and name common 2D and 3D shapes • sort and classify objects using a single criterion • show an awareness of uncertainty.

Mathematics: Entry 2

The standard at Entry 2 is underpinned by the process skills of representing (making sense of situations and representing them), analysing (processing and using the mathematics) and interpreting (interpreting and communicating the results of analysis).

Performance	Coverage and range
	Content and skills are equivalent to national curriculum mathematics levels 1–2 and the adult numeracy standards at Entry 2
<p>Learners can:</p> <ul style="list-style-type: none"> • understand simple practical problems in familiar and accessible contexts and situations • use basic mathematics to obtain answers to simple given practical problems that are clear and routine • generate results to a given level of accuracy • use given checking procedures • describe and explain solutions to simple given practical problems in familiar contexts and situations. 	<p>Learners can:</p> <ul style="list-style-type: none"> • understand and use whole numbers to 100 and count reliably up to 20 items • understand and use addition/subtraction in practical situations • understand and use multiplication in practical situations, where necessary using repeated addition to calculate • complete calculations using whole numbers • understand and use halves and quarters and find halves and quarters of small numbers of items • recognise and use familiar measures including time and money • recognise sequences of numbers including odd and even numbers • read simple scales to the nearest labelled division • use properties of simple 2D and 3D shapes • extract information from simple lists • record results.

Mathematics: Entry 3

The standard at Entry 3 is underpinned by the process skills of representing (making sense of situations and representing them), analysing (processing and using the mathematics) and interpreting (interpreting and communicating the results of analysis).

Performance	Coverage and range
	Content and skills are equivalent to national curriculum mathematics levels 1–3 and the adult numeracy standards at Entry 3
<p>Learners can:</p> <ul style="list-style-type: none"> • understand practical problems in familiar and accessible contexts and situations • begin to develop own strategies for solving simple problems • select and apply mathematics to obtain answers to simple given practical problems that are clear and routine • interpret and communicate solutions to practical problems in familiar contexts and situations • use simple checking procedures. 	<p>Learners can:</p> <ul style="list-style-type: none"> • understand and use whole numbers to 1,000 • complete written calculations with two-digit numbers • add and subtract using three-digit numbers • solve whole number problems involving multiplication and division • use mental recall of multiplication tables 2, 3, 4, 5 and 10 • round to the nearest 10 or 100 • understand and use simple fractions • understand decimals to two decimal places in practical contexts • recognise and describe number patterns • understand, estimate, measure and compare length, capacity, weight and temperature • complete simple mental calculations involving money and measures • recognise, name and draw simple 2D and 3D shapes • use metric and imperial units in everyday situations • extract and use information from lists, tables, simple charts and graphs, and make comparisons of this information • check accuracy of calculations and results • present findings to make sense to others.

Mathematics: level 1

The standard at level 1 is underpinned by the process skills of representing (making sense of situations and representing them), analysing (processing and using the mathematics) and interpreting (interpreting and communicating the results of analysis).

Performance	Coverage and range
	Content and skills are equivalent to national curriculum mathematics levels 1–4, the adult numeracy standards and the application of number key skill, level 1
<p>Learners can:</p> <ul style="list-style-type: none"> • understand practical problems in familiar and unfamiliar contexts and situations, some of which are non-routine • identify and obtain necessary information to tackle the problem • select and apply mathematics in an organised way to find solutions to practical problems for different purposes • use appropriate checking procedures at each stage • interpret and communicate solutions to practical problems, drawing simple conclusions and giving explanations. 	<p>Learners can:</p> <ul style="list-style-type: none"> • understand and use whole numbers and recognise negative numbers in practical contexts • add, subtract, multiply and divide whole numbers using a range of mental methods • multiply and divide whole numbers by 10 and 100 using mental arithmetic • understand and use equivalences between common fractions, decimals and percentages • add and subtract decimals up to two decimal places • solve simple problems involving ratio, where one number is a multiple of the other • use simple formulae expressed in words for one- or two-step operations • solve problems requiring calculation, with common measures including money, time, length, weight, capacity and temperature • convert units of measure in the same system • work out areas, perimeters and volumes in practical situations • construct models and draw shapes, measuring and drawing angles and identifying line symmetry • extract and interpret information from tables, diagrams, charts and graphs • collect and record discrete data and organise and represent information in different ways • find mean and range • use probability to show that some events are more likely to occur than others • understand outcomes, check calculations and explain results.

Mathematics: level 2

The standard at level 2 is underpinned by the process skills of representing (making sense of situations and representing them), analysing (processing and using the mathematics) and interpreting (interpreting and communicating the results of analysis).

Performance	Coverage and range
	Content and skills are equivalent to national curriculum mathematics levels 1–6, the adult numeracy standards and application of number key skill, level 2
<p>Learners can:</p> <ul style="list-style-type: none"> • understand routine and non-routine problems in a wide range of familiar and unfamiliar contexts and situations • identify the situation or problem and the mathematical methods needed to tackle it • select and apply a range of mathematics to find solutions • use appropriate checking procedures and evaluate their effectiveness at each stage • interpret and communicate solutions to practical problems in familiar and unfamiliar routine contexts and situations • draw conclusions and provide mathematical justifications. 	<p>Learners can:</p> <ul style="list-style-type: none"> • understand and use positive and negative numbers of any size in practical contexts • carry out calculations with numbers of any size in practical contexts • understand, use and calculate ratio and proportion, including problems involving scale • understand and use equivalences between fractions, decimals and percentages • add and subtract fractions; add, subtract, multiply and divide decimals to a given number of decimal places • understand and use simple equations and simple formulae involving one- or two-step operations • recognise and use 2D representations of 3D objects • find area, perimeter and volume of common shapes • use, convert and calculate using metric and, where appropriate, imperial measures • collect and represent discrete and continuous data, using ICT where appropriate • use and interpret statistical measures, tables and diagrams, for discrete and continuous data, using ICT where appropriate • use statistical methods to investigate situations • use a numerical scale from 0 to 1 to express and compare probabilities.

Information and communication technology

Introduction to ICT

The term 'functional' should be considered in the broad sense of providing learners with the skills and abilities they need to take an active and responsible role in their communities, everyday life, the workplace and educational settings. Functional information and communication technology (ICT) requires learners to use technology in ways that make them effective and involved as citizens, to operate confidently in life, and to work in a wide range of contexts.

The ICT standards are essentially concerned with developing and recognising the ability of learners to apply and transfer skills in ways that are appropriate to their situation.

They are flexible enough to be interpreted in a variety of contexts, for example in school and workplace settings, by a range of users. They provide the framework for assessment, rather than the detail.

For ICT to be useful, learners must have the skills and confidence to apply, combine and adapt their ICT knowledge to new situations in their life and work. The capacity to identify and understand the role that ICT plays in the world is crucial in enabling learners to function as effective citizens.

Functional ICT – level differentiation

Entry level

At Entry level, 'real life' contexts can appear complex. They should be approached by identifying familiar aspects and accessing the more straightforward elements or tasks.

Entry level learners:

- apply their basic knowledge and understanding to produce an appropriate solution to a simple problem (complexity)
- apply their understanding within a routine and familiar context (familiarity)
- apply a limited range of techniques to simple activities (technical demand)
- solve problems that are essentially instructor/tutor led (independence).

Level 1

At level 1, learners:

- identify the ICT requirements needed to solve a straightforward task and apply their knowledge and understanding to produce an appropriate solution (complexity)
- apply their knowledge and skills within a non-routine but familiar context (familiarity)
- apply a range of techniques in a number of applications to produce an appropriate outcome (technical demand)
- solve problems that are essentially instructor/tutor guided, demonstrating the confidence to make informed choices and knowing when to seek guidance (independence).

Level 2

At level 2, learners:

- analyse multi-step tasks and separate the components, identifying the relevant ICT requirements and applying their knowledge and understanding to produce an appropriate solution (complexity)
- apply their knowledge, skills and understanding within non-routine and non-familiar contexts (familiarity)
- demonstrate the application of a wide range of techniques across several applications to produce an appropriate outcome (technical demand)
- solve problems independently, overcoming challenges to produce successful outcomes (independence).

Use ICT systems: Entry 1

Level	Skill standard	Coverage and range	Examples/applications
Entry 1	Learners can:		
	1. interact with ICT for a given purpose	1.1. use ICT for a given purpose	ICT: computer, touch screen, cash machine, mobile phone, multimedia devices, on-screen information purpose: find local community information, use learning software
		1.2. recognise and use interface features	icon, option button, hotspot
	2. follow recommended safe practices	2.1. minimise physical stress	adjust seating and lighting, avoid hazards
		2.2. keep access information secure	password, PIN

Use ICT systems: Entry 2

Level	Skill standard	Coverage and range	Examples/applications
Entry 2	Learners can:		
	1. interact with ICT for a purpose	1.1. use computer hardware	keyboard, screen, printer, point and click device, headphones, microphone
		1.2. use software applications for a purpose	text processing, graphics, web browser, email
		1.3. recognise and use interface features	icon, option button, hotspot, window, menu
	2. follow and understand recommended safe practices	2.1. minimise physical stress	adjust seating and lighting, avoid hazards, take breaks
		2.2. keep access information secure	password, PIN
2.3. understand the need to stay safe		avoid inappropriate disclosure of personal information	

Use ICT systems: Entry 3

Level	Skill standard	Coverage and range	Examples/applications
Entry 3	Learners can:		
	1. interact with and use an ICT system to meet needs	1.1. use correct procedures to start and shut down an ICT system	log in, log out, use shutdown menu
		1.2. use input and output devices	keyboard, mouse, touch screen, microphone, printer, headphones
		1.3. select and use software applications to meet needs and solve problems	word processing, graphics, internet browser, email, audio or video player
		1.4. recognise and use interface features	icon, option button, hotspot, window, dialogue box, menu, drag and drop
		1.5. understand that settings can be adjusted according to individual needs	window size, mouse settings, icon size, screen resolution, desktop contrast, volume
	2. store information	2.1. work with files to enable storage and retrieval of information	create, open, save, print and close files, name files appropriately
		2.2. insert and remove media	CD, DVD, memory stick, hard drives
	3. follow and understand the need for safety and security practices	3.1. minimise physical stress	adjust seating and lighting, avoid hazards, take breaks, arrangement of hardware and cables, wrist rests and other devices
		3.2. keep information secure	keep copies safe, keep password or PIN secret
		3.3. understand the need to stay safe and to respect others when using ICT-based communication	avoid inappropriate disclosure of personal information, use appropriate language

Use ICT systems: level 1

Level	Skill standard	Coverage and range	Examples/applications
Level 1	Learners can:		
	1. interact with and use ICT systems independently to meet needs	1.1. use correct procedures to start and shut down an ICT system	log in, log out, use shutdown menu
		1.2. use a communication service to access the internet	broadband, dial-up, network, mobile device
		1.3. select and use software applications to meet needs and solve given problems	word processing, spreadsheets, graphics, internet browser, email, audio and video software
		1.4. recognise and use interface features effectively to meet needs	desktop, windows, dialogue box, menu, submenu, toolbar, scrollbar, drag and drop, zoom, minimise, maximise
		1.5. adjust system settings as appropriate to individual needs	window size, mouse settings, icon size, screen resolution, desktop contrast, volume
	2. use ICT to plan work and evaluate their use of ICT systems	2.1. use ICT to plan and organise work	time, convenience, cost
	3. manage information storage	3.1. work with files and folders to organise, store and retrieve information	create, open, save, save as, print and close files, create folders and subfolders, name files and folders appropriately
		3.2. insert, remove, label and store media safely	CD, DVD, memory stick, hard drives

Use ICT systems: level 1

Level	Skill standard	Coverage and range	Examples/applications
Level 1	Learners can:		
	4. follow and understand the need for safety and security practices	4.1. minimise physical stress	adjust seating and lighting, avoid hazards, take breaks, arrangement of hardware and cables, wrist rests
		4.2. keep information secure	keep copies safe, take backups, keep password or PIN secret
		4.3. understand the danger of computer viruses, and how to minimise risk	use virus-checking software, treat files from unknown sources with caution
4.4. understand the need to stay safe and to respect others when using ICT-based communication		avoid inappropriate disclosure of personal information, avoid misuse of images, use appropriate language, respect confidentiality, use copy lists with discrimination	

Use ICT systems: level 2

Level	Skill standard	Coverage and range	Examples/applications
Level 2	Learners can:		
	1. select, interact with and use ICT systems independently for a complex task to meet a variety of needs	1.1. use correct procedures to start and shut down an ICT system	log in, log out, use shutdown menu
		1.2. select and use a communication service to access the internet	broadband, dial-up, network, mobile device
		1.3. select and use software applications to meet needs and solve problems	word processing, spreadsheet, graphics, browser, email, audio and video software
		1.4. select and use interface features and system facilities effectively to meet needs	desktop, windows, dialogue box, menu, submenu, toolbar, scrollbar, drag and drop, zoom, template, wizard
		1.5. select and adjust system settings as appropriate to individual needs	window size, mouse settings, icon size, screen resolution, desktop contrast, volume, date and time
	2. use ICT to effectively plan work and evaluate the effectiveness of the ICT system used	2.1. use ICT to effectively plan work; review the effectiveness of ICT tools to meet needs in order to inform future judgments	time, convenience, cost, quality, range of facilities, versatility
	3. manage information storage to enable efficient retrieval	3.1. manage files and folder structures to enable efficient information retrieval	create, open, save, save as, print, close, delete, view, rename, move and copy files, create folders and subfolders, name files and folders appropriately
		3.2. insert, remove, label and store media safely	CD, DVD, memory stick, hard drives

Use ICT systems: level 2

Level	Skill standard	Coverage and range	Examples/applications
Level 2	Learners can:		
	4. follow and understand the need for safety and security practices	4.1. minimise physical stress	arrangement of hardware and cables, wrist rests and other devices
		4.2. keep information secure	keep copies safe, take backups, keep password or PIN secret
		4.3. understand the danger of computer viruses and how to minimise risk	use virus-checking software, treat files from unknown sources with caution
		4.4. understand the need to stay safe and to respect others when using ICT-based communication	avoid inappropriate disclosure of personal information, avoid misuse of images, use appropriate language, respect confidentiality, use copy lists with discrimination
5. troubleshoot	5.1. identify ICT problems and take appropriate action	software freeze, respond appropriately to error dialogue, virus threat, storage full, paper jam, uninstall software, know when and whom to ask for help to fix the problem	

Find and select information: Entry 1

Level	Skill standard	Coverage and range	Examples/applications
Entry 1	Learners can:		
	1. recognise sources of information	1.1. recognise sources of information	information point, poster, newspaper, conversation, TV, web page, radio, text message
	2. find information from an ICT-based source	2.1. find appropriate information from an ICT-based source	text message, voicemail, on-screen information

Find and select information: Entry 2

Level	Skill standard	Coverage and range	Examples/applications
Entry 2	Learners can:		
	1. use appropriate sources of information	1.1. recognise and use appropriate sources of ICT-based and other forms of information	information point, newspaper, book, picture, map, conversation, CD, DVD, text message, website, podcast, web log
	2. find information from ICT-based sources	2.1. find information from ICT-based sources using appropriate facilities	menu, contents list, index, follow links, forward and back

Find and select information: Entry 3

Level	Skill standard	Coverage and range	Examples/applications
Entry 3	Learners can:		
	1. select and use appropriate sources of information	1.1. select and use appropriate sources of ICT-based and other forms of information	newspaper, book, image, map, conversation, CD, DVD, text message, website, podcast, web log
	2. use ICT to search for and select information that matches given requirements	2.1. use internet sources of information	enter a web address, use a search engine, use bookmarks, follow links
		2.2. use appropriate search techniques to find required information	contents list, index, find or search tool
2.3. select and use information that matches given requirements		write down, copy and paste, capture images, download audio or video files	

Find and select information: level 1

Level	Skill standard	Coverage and range	Examples/applications
Level 1	Learners can:		
	1. select and use a variety of sources of information independently to meet needs	1.1. select and use appropriate sources of ICT-based and other forms of information	newspapers, books, images, maps, conversations, CDs, DVDs, text messages, podcasts, web logs, web-based reference sites
		1.2. recognise copyright constraints on the use of information	music downloads, acknowledgement of sources, avoiding plagiarism
	2. access, search for, select and use ICT-based information and evaluate its fitness for purpose	2.1. access, navigate and search internet sources of information purposefully and effectively	enter a web address, use a search engine, browse, save and use bookmarks
		2.2. use appropriate search techniques to locate and select relevant information	search criteria, quotation marks, search within results, relational operators, find or search tool
		2.3. use information from a variety of sources and evaluate its match to requirements and fitness for purpose	recognise intention and authority of provider, currency of the information, relevance, bias

Find and select information: level 2

Level	Skill standard	Coverage and range	Examples/applications
Level 2	Learners can:		
	1. select and use a variety of sources of information independently for a complex task	1.1. select and use appropriate sources of ICT-based and other forms of information which match requirements	newspapers, books, images, maps, conversations, CDs, DVDs, text messages, podcasts, web logs, web-based reference sites
		1.2. recognise copyright and other constraints on the use of information	music downloads, acknowledgement of sources, avoiding plagiarism, provisions of the Data Protection Act
	2. access, search for, select and use ICT-based information and evaluate its fitness for purpose	2.1. access, navigate and search internet sources of information purposefully and effectively	enter a web address, use a search engine, browse, save and use bookmarks
		2.2. use appropriate search techniques and design queries to locate and select relevant information	multiple search criteria, quotation marks, search within results, relational operators, logical operators, find or search tool including wildcards
		2.3. use discrimination in selecting information that matches requirements from a variety of sources and evaluate fitness for purpose	recognise intention and authority of provider, currency of the information, relevance, bias

Develop, present and communicate information: Entry 1

Level	Skill standard	Coverage and range	Examples/applications
Entry 1	Learners can:		
	1. enter and edit single items of information	1.1. enter and edit information	name, PIN
	2. submit information to achieve a purpose	2.1. identify and correct simple errors	wrong button press, incorrect password or PIN
		2.2. submit information correctly	confirm choice, press enter key
3. use ICT-based communication	3.1. receive ICT-based communication	receive a text message, view an email message	

Develop, present and communicate information: Entry 2

Level	Skill standard	Coverage and range	Examples/applications
Entry 2	Learners can:		
	1. enter and edit information for a simple given purpose	1.1. enter information and edit it as necessary	information: name, reference number, diary entry, text message edit: insert, delete
	2. present information that is fit for a given purpose	2.1. check accuracy and correct errors	check for missing words, correct typing errors
		2.2. present information that is fit for a purpose	list, diary entry, text message, email reply
3. use ICT appropriately to communicate	3.1. use ICT to send and receive information	text messaging, email, internet	

Develop, present and communicate information: Entry 3

Level	Skill standard	Coverage and range	Examples/applications
Entry 3	Learners can:		
	1. enter and develop information to meet needs, in the form of: text images numbers	1.1. enter and edit information to achieve the required outcome	information: email message, letter, online form edit: insert, delete, copy, cut, paste, drag and drop, undo, redo
		1.2. enter and format text to enhance its effect	left, centre, right, font, style, size
		1.3. insert and position images or other digital content to achieve a purpose	clip-art, photo, scanned image, audio file
		1.4. enter and process numbers to meet needs	enter a list of prices and generate a total
	2. bring together information to achieve a purpose	2.1. organise information of different forms to achieve a purpose	image with text, in a poster or web page
	3. present information and review its effectiveness	3.1. check meaning, accuracy and suitability	ensure meaning is clear, seek views of others, check spelling, check calculations
		3.2. present information that is fit for purpose	information: email message, letter, poster, web page fitness for purpose: impact, clarity
	4. select and use ICT to communicate	4.1. create, access and respond appropriately to ICT-based communication	read, reply, forward, create, delete

Develop, present and communicate information: level 1

Level	Skill standard	Coverage and range	Examples/applications
Level 1	Learners can:		
	1. enter, develop and format information to suit its meaning and purpose, including:	1.1. enter, organise, develop, refine and format information, applying editing techniques to meet needs	headings, lists, tables, use of templates highlight, drag and drop, find, replace, undo, redo, templates
		1.2. use appropriate page layout	margins, header, footer, portrait, landscape, page breaks, page numbering
	text and tables	1.3. format text to maximise clarity and enhance presentation	bullets, numbering, alignment, tabs, line spacing, colour, font, style, size, simple tables
	images	1.4. obtain, insert, size, crop and position images that are fit for purpose	clip-art, photo, scanned image
	numbers	1.5. enter, develop and organise numerical information that is fit for purpose	cell data types, cell ranges, formulas with a single operator, SUM function, structure/layout of worksheet
		1.6. format numerical information appropriately	currency, per cent, number of decimal places
	graphs	1.7. create and develop charts and graphs to suit requirements, using suitable labels	pie chart, bar chart, single line graph, appropriate format, title, axis titles, legend
	records	1.8. enter, organise and sort structured information in ascending or descending order	field selection, data sort (alphanumeric), filter

Develop, present and communicate information: level 1

Level	Skill standard	Coverage and range	Examples/applications
Level 1	Learners can:		
	2. bring together information to suit content and purpose	2.1. organise information of different forms or from different sources to achieve a purpose	organise: combine images, graphs and tables with text, combine texts, graphics, sound and video footage purpose: for a poster, newsletter, web page, multimedia presentation
	3. present information in ways that are fit for purpose and audience	3.1. work accurately and proofread, using software facilities where appropriate for the task	ensure meaning is clear, seek views of others, check spelling, check calculations, ensure consistent layout, print preview
		3.2. produce information that is fit for purpose and audience using accepted layouts as appropriate	letter, memo, report, newsletter, poster, information sheet, web page, multimedia presentation
	4. evaluate the selection and use of ICT tools and facilities used to present information	4.1. evaluate the effectiveness of ICT tools to meet presentation needs	time taken, quality
		4.2. review and modify work as it progresses to ensure the result is fit for purpose and audience	produce drafts, review against initial plans, check with intended audience

Develop, present and communicate information: level 1

Level	Skill standard	Coverage and range	Examples/applications
Level 1	Learners can:		
	5. select and use ICT to communicate and exchange information safely, independently, responsibly and effectively	5.1. create, access, read and respond appropriately to email and other ICT-based communication, including attachments, and adapt style to suit audience	open mailbox, read, reply, forward, communicate using from, to, cc, bcc, subject and content fields, add and open attachments, use instant messaging, contribute to forums, web logs or web-based reference sites
		5.2. use a contacts list	add, amend and delete entries

Develop, present and communicate information: level 2

Level	Skill standard	Coverage and range	Examples/applications
Level 2	Learners can:		
	1. enter, develop and format information independently to suit its meaning and purpose, including: text and tables images numbers	1.1. enter, organise, develop, refine and format information, applying editing techniques to meet needs	organise: structure of information, document layout, headings, subheadings, lists, tables, use of templates edit: drag and drop, find, replace, undo, redo
		1.2. use appropriate page layout	columns, margins, header, footer, portrait, landscape, page breaks, page numbering
		1.3. enter and format text to maximise clarity and enhance presentation	bullets, numbering, sub-numbering, alignment, tabs, line spacing, colour, font, style, size
		1.4. create and format tables to maximise clarity and enhance presentation	tables: timetable, components list, membership information format: horizontal and vertical text alignment, merge and split cells, gridlines, borders, shading
		1.5. obtain, insert, size, crop and position images that are fit for purpose	clip-art, photos, scanned images, borders
		1.6. enter, develop and organise numerical information that is fit for purpose	cell data types, cell ranges, absolute and relative referencing, formulas, functions, replication, structure and layout of worksheet
		1.7. format numerical information appropriately	currency, per cent, number of decimal places, date, time, text wrap, row height, column width, gridlines, merged cells, cell borders

Develop, present and communicate information: level 2

Level	Skill standard	Coverage and range	Examples/applications
Level 2	Learners can:		
	records	1.8. create and develop charts and graphs to suit the numerical information, using suitable labels	pie chart, bar chart, single line graph, scattergram, title, axis titles, legend
		1.9. enter, organise, select and edit records using field names and headings, data types and unique record identifier when appropriate	spreadsheet or database, use data filtering
		1.10. sort records on one or more fields in ascending or descending order	table, spreadsheet, database
	2. bring together information to suit content and purpose	2.1. bring together and organise components of images and text	image, chart, text alignment, captions, text wrap, use of text boxes, behind, in front, grouping
		2.2. organise information of different forms or from different sources to achieve a purpose	poster, newsletter, web page, catalogue, brochure, multimedia presentation
	3. present information in ways that are fit for purpose and audience	3.1. work accurately and proofread, using software facilities where appropriate	ensure meaning is clear, seek views of others, check spelling, check calculations, ensure consistent layout, print preview

Develop, present and communicate information: level 2

Level	Skill standard	Coverage and range	Examples/applications
Level 2	Learners can:		
		3.2. produce information that is fit for purpose and audience, using accepted layouts and conventions as appropriate	letter, memo, report, newsletter, brochure, poster, web page, information sheet
	4. evaluate the selection and application of ICT tools and facilities used to present information	4.1. evaluate the effectiveness of ICT tools to meet needs	time taken, quality, range of facilities, versatility, transferability of information into other formats, speed of internet connection, time constraints of downloading large files
		4.2. review and modify work as it progresses to ensure the result is fit for purpose and audience, and to inform future judgments	produce drafts, review against initial plans, check with intended audience
	5. select and use ICT to communicate and exchange information safely, responsibly and effectively, including storage of messages and contact lists	5.1. create, access, read and respond appropriately to email and other ICT-based communication, including attachments, and adapt style to suit audience	open mailbox, read, reply, forward, communicate using from, to, cc, bcc, subject and content fields, add and open attachments, use instant messaging, contribute to forums, web logs or web-based reference sites
		5.2. manage efficient storage of ICT-based communications, attachments and contact addresses	create and maintain folders, delete redundant messages, add, amend and delete contact entries

About this publication

Who is it for?

This publication is for practitioners and awarding bodies involved in the development and delivery of functional skills qualifications.

What is it about?

The document details the functional skills standards that define and differentiate the skill requirements for determining a learner's level of functional proficiency in English, mathematics and ICT.

What is it for?

The standards explain the difference between levels for skills-based qualifications and are a helpful guide to the type of content that is expected in functional English, mathematics and ICT qualifications.

Related publications

Managing delivery, Teaching and learning functional English, Teaching and learning functional mathematics and Teaching and learning functional ICT (QIA, 2007).

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