OCR
RECOGNISING ACHIEVEMENT

Functional Skills

Maths

Functional Skills qualification in Maths at Entry 1, Entry 2, Entry 3

Scheme code: 09862, 09863, 09864

Entry Level Marking Guidance

Contents

1   Introduction

This marking guidance is to help centres when assessing OCR Functional Skills Maths Entry Level 1, 2 and 3 assessments (all sets). It is designed to give internal assessors more detailed guidance on acceptable responses from candidates.

This document must be used in conjunction with the assessment guidance detailed in each set of assessment materials and the OCR Functional Skills Maths Entry Level Centre Handbook. Particular attention should be paid to Section 4 of the Centre Handbook, which details the requirements for internal assessment and internal standardisation.

1.1   General guidance relevant to the assessment

- Tutors should give feedback to candidates to support and guide them in producing evidence to the required standard, during the marking process.

- If necessary, in order to achieve the minimum pass requirement, candidates can attempt each assessment task more than once within the time specified and under Controlled Assessment conditions.

- Where candidates have reworked the assessment, amendments can be made by the candidate to their original work, as long as the assessor makes it clear that the work is amended after assessor feedback. Where there are substantial amends needed, candidates should complete new versions of their work to ensure that their responses are clear.

- Where appropriate, assessors should highlight that reworking has taken place in the 'assessor feedback' area of any recording documentation.

- Half marks are not permitted.

1.2   Providing assessor feedback

Where assessors are required to provide feedback on recording documentation, this should be detailed where necessary (i.e. where additional guidance was given to a candidate or where reworking was expected in order to meet the required standard). The detail of the feedback can relate to a particular assessment criteria, or against a whole task, as appropriate.

Where an assessor is satisfied that the candidate work has met the required standard with no additional intervention, or there are no particular comments needed, then a generic statement of feedback is appropriate.

Overall, the judgement on the amount of feedback needed should be dictated by the transparency of the assessor decision when this work is internally standardised or externally moderated.

2   Understanding the criteria

2.1   What are functional skills?

Functional Skills are the core elements of English, Maths and ICT that provide an individual with the essential knowledge, skills and understanding that will enable them to operate confidently, effectively and independently in life and at work.

Functional Skills assessment demands learners to:
- Properly understand the situation or problem.
- Make some assumptions based on the information provided.
- Weigh up the consequences of different ways of dealing with the situation/problem.
- Choose and carry out a course of action that is fit for purpose to resolve the situation or problem.

2.2   Functional skills mathematics process skills

The Ofqual Functional skills criteria for mathematics identify three process skills. Understanding what these skills require of a learner will help to identify where and why marks are being awarded in the assessment. Marks in functional skills entry level assessments are all allocated to these processes.

The three process skills are *Representing, Analysing, and Interpreting* and they require a learner to be able to do the following:

Representing

- 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

Analysing

- 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

Interpreting

- interpret results and solutions
- draw conclusions in the 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

Seeing these skills in a practical example can help to identify where marks can be allocated.

Consider this situation:

Ten people order taxis to get home after a night out.
Each taxi will take four people.
How many taxis will be required?

A solution could be written like this:

10 ÷ 4	Recognising that this can be presented in a mathematical model and extracting the correct numbers from the information given is **Representing.**
10 ÷ 4 = 2.5	Using the correct procedure (division) and obtaining a result is **Analysing.**
3 taxis	Once the answer to the sum has been found, it may need to be rounded, compared or commented upon. This is **Interpreting.**

To solve this problem, some assumptions have been made. Some assessment questions may assess the recognition of these assumptions.

In the scenario above, it is assumed that all ten people are going to the same destination. There is also an assumption that each taxi takes four passengers rather than the driver being one of the four people.

This means that answers to the above scenario could be 10 taxis (if everyone wants to go somewhere different) or 4 taxis (3 passengers and a driver in each taxi) or in fact any number in between if the answer were justified correctly.

This demonstrates what functionality is – rather than a sum with a correct answer, it is the application of mathematical knowledge to solve a problem.

The three process skills are broken down into Skill Standards for each Functional Skills level.

Each of these must be accredited with marks in a final assessment

Entry 1 Skill standards and assessment weightings

Skill standards	Coverage and range (indicative)	Assessment weighting
Representing • understand simple mathematical information in familiar contexts and situations	• understand and use numbers with one significant figure in practical contexts • describe the properties of size and measure, including length, width, height and weight, and make simple comparisons	30-40%
Analysing • use mathematics to obtain answers to simple given practical problems that are clear and routine • generate results that make sense for a specified task	• describe position • recognise and select coins and notes • recognise and name common 2D and 3D shapes	30-40%
Interpreting • provide solutions to simple given practical problems in familiar contexts and situations	• sort and classify objects practically using a single criterion	30-40%

Entry 2 Skill standards and assessment weightings

Skill standards	Coverage and range (indicative)	Assessment weighting
Representing • understand simple practical problems in familiar contexts and situations • select basic mathematics to obtain answers	• understand and use whole numbers with up to two significant figures • understand and use addition/subtraction in practical situations • use doubling and halving in practical situations	30-40%
Analysing • 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	• recognise and use familiar measures, including time and money • recognise sequences of numbers, including odd and even numbers • use simple scales and measure to the nearest labeled division • know properties of simple 2D and 3D shapes	30-40%
Interpreting • describe solutions to simple given practical problems in familiar contexts and situations	• extract information from simple lists	30-40%

Entry 3 Skill standards and assessment weightings

Skill standards	Coverage and range (indicative)	Assessment weighting
Representing • understand practical problems in familiar contexts and situations • begin to develop own strategies for solving simple problems • select mathematics to obtain answers to simple given practical problems that are clear and routine	• add and subtract using three-digit numbers • solve practical problems involving multiplication and division by 2, 3, 4, 5 and 10 • round to the nearest 10 or 100 • understand and use simple fractions • understand, estimate, measure and compare length, capacity, weight and temperature	30-40%
Analysing • apply mathematics to obtain answers to simple given practical problems that are clear and routine • use simple checking procedures	• understand decimals to two decimal places in practical contexts • recognise and describe number patterns • complete simple calculations • involving money and measures	30-40%
Interpreting • interpret and communicate solutions to practical problems in familiar contexts and situations	• recognise and name simple 2D and 3D shapes and their properties • use metric units in everyday situations • extract, use and compare information from lists, tables, simple charts and simple graphs	30-40%

Here is an example of how these skills could be assessed and marked as per the Entry 3 standards.

When marking a learner's script, it may be helpful to refer to these examples to see how response may be allocated marks.

Consider the following scenario:

Jo wants to buy a new computer but has to keep within a budget.

The whole task of buying a new computer has been broken down in to examples of where skill standards can be met.

Task	Entry level 3 Skill standard	Action being taken
Jo Decides the two important thing are the cost and specification of the computer and decides on some criteria i.e. speed, memory and what extras she would like	R1 understand practical problems in familiar contexts and situations	Thinking about the problem, deciding on a plan and collecting the information needed
Jo lists the spec and shops to buy from and gets some prices for the correct machines	R2 begin to develop own strategies for solving simple problems	
Jo decides what to buy, and where from. She lays out her choices and prices and identifies that she must add the prices of the parts to ensure she does not go beyond her budget	R3 select mathematics to obtain answers to simple given practical problems that are clear and routine	
Jo calculates the total price for the same spec computer package from different shops and subtracts this from her budget to see if she can afford anything else	A1 apply mathematics to obtain answers to simple given practical problems that are clear and routine	Doing and checking the maths with the information collected.
She checks her calculations by subtracting the cost of the parts from her budget	A2 use simple checking procedures	
From her investigations, Jo is able to decide on a suitable computer package, where to buy it from and how much it will cost knowing it is within her budget.	I1 interpret and communicate solutions to practical problems in familiar contexts and situations	With the calculations completed, Jo can make comparisons and a decision can be made.

It is difficult to single out an action and attribute it to only one particular process skill.
For example, when Jo is checking prices she will probably be comparing them before she gets to the end of the task so there will be ongoing interpretation. This is often how we work in real life.

3   Templates

OCR will be providing templates for centres to use from late May 2011.

3.1   Creating a template

Starting with a blank piece of paper can be daunting for a learner; therefore creating a template for the assessment task is perfectly acceptable.

Any template developed **must** still allow the learner to meet all of the marking criteria.

An example of a good template is where the assessment instructions are listed, with space to insert the information or calculations required. You may reword the instructions into a form that is accessible for your learners.

For example: Set A - entry level 1 mathematics assessment

Stage 1

- Decide on 4 clothes items they want to buy

- Decide on 2 outlets where they can compare the cost of each item

Stage 2

- Find the prices of their chosen clothes items in the 2 outlets.

Stage 3

- Identify the coins or notes they would need, to buy one of the items they have chosen.

- Compare the prices they have found and identify if there are any trends in the prices.

- Identify the situation of the outlets.

- Decide if it makes a difference where they shop.

The following pages show examples of templates which do and do not meet the assessment criteria.

The best way to write a template is to start with the instructions from the assessment and reword them as you feel appropriate. In order to ensure you are meeting all criteria you should use the mark scheme to make sure all the marks can be achieved by the students' responses.

The first of the following examples shows the first question asked and has four boxes in which to put the responses. The instruction in the assessment is to "choose four"; the marking scheme is

accrediting "counting to four" As the learner has been guided to put four responses, they would not be able to be awarded the marks for counting.

There is also an instruction to choose two outlets and this has also been given two boxes to fill. Again the choice is not the learner's so they cannot get the marks.

Introductory diploma in construction trades

Entry 1 Maths

Name ....

Choose four tools you will need for your first project

Trowel	Level
Boots	Mixer Tool

Choose two places where you could buy them

Screwfix	Wickes

Find the costs of these tools from each place

Tool	Screwfix	Wickes
Trowel	9	7
level	4	5
Boots	25	34
Mixer	260	310

Which coins or notes from the list will you need to pay for the first tool?

1p	2p	5p	10p	20p	50p
£1	£2	£5	(£10)	£20	

> Four boxes here when the assessment awards marks for counting to four means the learner is guided too much. The learner does not have the opportunity to achieve the criteria

> Again, two boxes are given when the assessment is accrediting counting to two.

> This is compounded more with the titles of the two suppliers being entered in the table – as an external moderator it appears as though the tutor or teacher has written the task and not given the learner the opportunity to choose two outlets.

> **Note – if the tables had been left out after the first two questions, this would have been acceptable. The third table for finding the prices could be used but in the format of the next example**

The following page shows a good template that could be used for the same entry level 1 task.

Assessment Task – Entry Level 1

Name of Learner…………………………………………………………………

Date Started……………………………………………………………………….

Date Completed……………………OCR Functional Skills Qualification in Maths at Entry………………..

☐

You have decided to re-decorate your bedroom. Think about what you would like to do to make it better and write down the names of 4 things you will need.

(3 marks)

You will need to get prices from 2 different places. Decide which 2 places you are going to use and write them down.

(3 marks)

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You now have to find out how much each item costs from the places you have chosen. When you are ready complete the table below

Items	£	£
		(3 marks)

Changing the context of a task

The regulatory criteria state that familiarity should not be a barrier to assessment at entry level. All entry level tasks can be recontextualised in order to reduce the barriers to assessment for a learner.

In the two example templates (pages 11 – 13) for the set A assessment, both have had a change of context. The original material asks for 4 items of clothing and two shops to buy them from.

In the second template, the tutor has changed this to four items to buy for a bedroom.
This has kept the assessment relevant and familiar to the particular learner, but still gives the learner the opportunity to meet the marking criteria.
The first template has a context to match a learner's vocation and appears to tie in with his main course assessment which is good practice.

The main points to remember when changing a task context is

- Is the context familiar to the learner?

- Will the task still meet the marking criteria? Check the mark scheme to make sure you can still allocate the marks.

4   Marking and assessment

4.1   Mark allocation and follow through

For all the entry level maths assessments there is a chance that each learner will have a different set of numbers to work with depending on their own choices. In fact, if this were not the case in a batch of similar level tasks, it may suggest that learners had been guided too much towards the information they choose.

What this means is that every assessment will be slightly different.

When marking a learner's work, accreditation should be given to each process skill that has been correctly met. Each marked process should be marked independently to any other.

Any arithmetic errors should only be penalised once and not on a reoccurring basis so if a learner incorrectly totals figures but then uses this incorrect total correctly from that point onward they should only lose marks for the initial error.

Put this into a practical scenario:

> Jo made a mistake when finding the prices of her four items from one of the shops. She cannot be accredited with the marks for finding the right prices. However, she correctly identified the coins needed to pay for this "wrong" price. She should be given the marks for identifying the correct coins.

4.2   Marking, assessment and internal verification

Any work done by the learner (evidence) to meet the criteria of a functional maths entry level assessment should be assessed.

This is to meet three requirements:

- To give the learner feedback to inform progression and development needs.
- To show internal verifiers that the work has been checked against the marking scheme.
- To show an external moderator the criteria have been met and how they have been met.

There is a difference between marking and assessment. An external moderator will need to see some indication as to how the assessment decisions were made, especially if they are not obvious from the learners work.

An example of this is where a learner has written a list of prices next to a list of items.

It would be impossible for an external moderator to know if the prices were correct unless there was a list or printout of all the shops and copies of catalogues or websites with relevant information. In most cases this is not practical, so a comment from an assessor explaining how the learner found the prices and with how much guidance, would help the external moderator agree with the assessors marking allocation.

In some cases a learner may not be able to explain on paper the steps they went through to achieve a decision or total. However, they may be able to explain verbally to their tutor/teacher. In a case such as this the assessor would need to make notes either on the learner's evidence, or on the feedback sheet, about the discussion with the learner to assure the assessor of the learner's competence.

Internal verification should then be carried out to ensure that mark allocation and level of evidence provided is consistent within in the centre.

The purpose of internal verification is to check the assessment decision and make sure the mark allocation is based on evidence present and that the assessment decision is correct. The external moderator will check to ensure this process has taken place.

The information included as evidence for the entry level assessment sent to your external moderator does not need to show any work which is not specifically meeting the criteria for that level.

Progression

Although not an assessment requirement, it is good practice for learners to know, and have an opportunity to develop skills beyond the level they may be working towards.

Admin and what to send your moderator

All the paperwork you need to send with your submissions can be found on the OCR website.

For each submission for each level of entry level functional skills you will need to include:
- an authentication form – signed and dated by each assessor
- an assessment front sheet

For each learner you need to submit:
- an assessment record sheet - showing marks for each process
- the learners evidence showing how they have met the criteria

For further information

There is a dedicated functional skills email address for any functional skills query – functionalskills@ocr.org.uk

For information about INSET training, visit out Eventbooker website to search for the lastest functional skills training events https://www.ocreventbooker.org.uk/ocr/desktopdefault.aspx