



You are going to plan a party for Bonfire night.
You have **40** of your friends attending.

You will buy:

Fireworks

Food

Task 1

You have saved up £230.00 and your friends have given you £50.00 towards the cost. You also have £30.00 in vouchers.

a) How much money do you have including your vouchers?
Show your calculations.

(3 marks)

b) You hire the local hall for £75.00. How much money do you have left?
Show your calculations.

(3 marks)

Task 2

a) Use the table in the information pack. Find out the cost of 20 rockets, sparklers for 40 people, and two assortment boxes. Show your calculations.

Lidl:

Argos:

Tesco:

(6 marks)

b) Which place worked out the most expensive? _____

(1 mark)

c) You go with the cheapest place to go buy your fireworks.

This is _____.

(1 mark)

d) Now subtract the cost of your fireworks from the money you have left. Show your calculations.

How much have you got left? _____

(1 mark)

Task 3

You decide to provide hotdogs or hamburgers to your guests. Use the **information sheet** to answer the following questions.

- a) You get: 24 hotdog sausages
24 burgers
24 hotdog rolls
24 burger rolls
24 cheese slices

What is the total cost for all these items? _____
Show your calculations. Ask for extra paper if you need it.

(11 marks)

- b) Now take the cost of the food away from your last total on page 2. Show your calculation.

How much money is left for drinks and decorations? _____ (2 marks)

- c) Your party starts at half past seven. Write this in figures using two ways.
_____ (2 marks)

Task 4

You have some money left after buying drinks and decorations. How could you use this to improve your party? Use real prices in your suggestions.

(2 marks)

Well done! Now you can enjoy your party knowing that everything has been paid for.

Functional Skills Maths

Planning a party for Bonfire Night



Firework price list



<i>Item</i>	Shop	Price	Amount in pack / box	Offers
Rockets	Lidl	£6.99 each	Pack of 10	2 packs for £12.00
Sparklers	Lidl	£1.50 each	Pack of 10	Buy one get one free
Assortment box	Lidl	£8.99 each	Box of 20	2 packs for £14.00
Rockets	Argos	£4.99	Pack of 5	
Sparklers	Argos	75p	Pack of 5	
Assortment box	Argos	£15.00	Pack of 20	Buy one get one half price
Rockets	Tesco	£15.00	Pack of 10	Buy one get one free
Sparklers	Tesco	£1.00	Pack of 5	
Assortment box	Tesco	£30.00	Box of 20	Buy one get one free

Food Prices



8 Giant hotdog sausages **£2.49**



4 quarter pound burgers **£2.00**



8 Cheese slices **£1.25**



12 Bread rolls **£1.45 or (2 for £2.00)**



6 Hotdog rolls **50p a pack**

Bonfire night maths

Answers | Teaching notes | Functional Maths mapping



	The marks awarded are for guidance only and are designed to highlight the importance of the three process skills.	Marks	R	A	I
1a	$£230.00 + £50.00 + £30.00 = £310.00$	3 (1 + 2)			
1b	$£310.00 - £75.00 = £235.00$	3 (1 + 2)			
2a	Lidl £12.00 rockets (2 packs) , £3.00 sparklers (only need two packs as buy one get one free) and £14.00 assortment pack (as buy two packs for £14.00) TOTAL = £29.00	6 (3 + 3)			
2a	Argos: Rockets £4.99 + £4.99 + £4.99 + £4.99 = £19.96 , sparklers 75p x 8 = £6.00 and Assortment box buy one and get other for half price $£15.00 + £7.50 = £ 22.50$ TOTAL= £48.46				
2a	Tesco: Rockets £15.00 each (buy one pack get one free), sparklers £1.00 each x 8 = £8.00 and assortment box £30.00 each (buy one get one free) TOTAL= £53.00				
2b	most expensive: Tesco	1			
2c	cheapest: Lidl	1			
2d	$£235.00 - £29.00 = £206.00$	1			
3a	sausages: $£2.49 + £2.49 + £2.49 = £7.47$	10 (5 + 5)			
	burgers: $£2.00 \times 6 = £12.00$				
	hotdog rolls: $50p \times 4 = £2.00$				
	burger rolls $£1.45$ each or 2 for £2.00				
	cheese slices: $£1.25 \times 3 = £3.75$				
3b	TOTAL = £27.22	1			
3b	$£206.00 - £27.22 =$	1			
3c	£178.78	1			
3d	7.30 pm and 19.30	2			
4a	Any sensible suggestion(s)	2			
	Total marks	32	11	17	4
	A 'pass mark' is not given as this will vary with the level and skills you are assessing (see pp 8-9). However, it should be stressed to students that they need to score marks in all three columns to achieve in Functional Mathematics.				

Entry 2, Entry 3 and Level 1 Adult Numeracy

This resource covers many aspects of adult numeracy (whole numbers, money, division, time, etc.). For related resources and further curriculum links visit the resource description page at www.skillsworkshop.org

Functional Mathematics

This resource is also ideal for underpinning many Functional Maths coverage and range statements at Entry 2 - Level 1 (see highlighted areas of the table below). However, in Functional Mathematics exams it is the process skills that are assessed; these are key to successful Functional Maths teaching and learning and must always be developed and stressed during teaching (see next page).

Coverage and Range statements (indicative only)

Coverage and range statements provide an indication of the type of mathematical content candidates are expected to apply in functional contexts. Relevant content can also be drawn from equivalent National Curriculum levels & Adult Numeracy standards.

Highlighting indicates the main coverage and range skills covered in this resource, although these will vary with the student group and how the resource is used by the teacher.

Level 1

- | | |
|--|---|
| <ul style="list-style-type: none"> understand and use whole numbers and understand negative numbers in practical contexts add, subtract, multiply and divide whole numbers using a range of strategies 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 | <ul style="list-style-type: none"> use data to assess the likelihood of an outcome solve problems requiring calculation, with common measures, including money, time, length, weight, capacity & temperature convert units of measure in the same system work out areas and perimeters in practical situations construct geometric diagrams, models and shapes 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 |
|--|---|

Entry 3

- | | |
|---|---|
| <ul style="list-style-type: none"> 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 understand decimals to two decimal places in practical contexts | <ul style="list-style-type: none"> recognise and describe number patterns complete simple calculations involving money and measures 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 |
|---|---|

Entry 2

- | | |
|---|---|
| <ul style="list-style-type: none"> 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 recognise and use familiar measures, including time and money | <ul style="list-style-type: none"> recognise sequences of numbers, including odd and even numbers use simple scales and measure to the nearest labelled division know properties of simple 2D and 3D shapes extract information from simple lists |
|---|---|

References: Ofqual (2009), *Functional Skills criteria for Mathematics: Entry 1, Entry 2, Entry 3, level 1 and level 2.*
<http://www.ofqual.gov.uk/files/2009-11-functional-skills-criteria-for-mathematics.pdf>
 Further functional skills documents available at <http://www.ofqual.gov.uk/>

Process Skills (all levels)

Highlighting indicates the process skills covered (although these should not really be considered as separate entities). Actual coverage will vary with the student group and how the resource is used by the teacher.

<p>Representing – selecting the mathematics and information to model a situation</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>Analysing – processing and using mathematics</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 models find results and solutions 	<p>Interpreting – interpreting and communicating the results of the analysis</p> <ul style="list-style-type: none"> interpret results and solutions draw conclusions in light of situations consider the appropriateness and accuracy of results and conclusions choose appropriate language and forms of presentation to communicate results and solutions
Skill Standards (Level 1)		
<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 mathematics in an organised way to find solutions 	<ul style="list-style-type: none"> apply mathematics in an organised way to find solutions to straightforward practical problems for different purposes use appropriate checking procedures at each stage 	<ul style="list-style-type: none"> interpret and communicate solutions to practical problems, drawing simple conclusions and giving explanations
Skill Standards (Entry 3)		
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> apply mathematics to obtain answers to simple given practical problems that are clear and routine use simple checking procedures 	<ul style="list-style-type: none"> interpret and communicate solutions to practical problems in familiar contexts and situations
Skill Standards (Entry 2)		
<ul style="list-style-type: none"> understand simple practical problems in familiar contexts and situations select basic mathematics to obtain answers 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> describe solutions to simple given practical problems in familiar contexts and situations

Ideas for developing process skills

Encourage students to:

- highlight information they need, cross out unneeded information
- show all their working out (note that calculators are permitted at all levels of FM assessment but learners should get into the habit of recording their calculations)
- check all their calculations or procedures and show proof that they have done so
- draw conclusions
- discuss and justify their choice of method and their answers
- explain their answers and conclusions to others – verbally and in writing
- investigate other options / situations (e.g. some pages include web links which could be used for further investigations)
- create new questions about given information (e.g. the info pack on pages 4-6, etc.) and try them out on other students
- mark each other's work