Christmas recipe activities

Name _____ Date _____

Keep a written record of your work to show your tutor.

This must include all your working-out.

1. Change the quantities for the mincemeat from ounces to grams, using a conversion of 1oz = 25g.
   Do this for the first five ingredients only.

2. Work out the total weight of the mincemeat in grams.

3. You decide to give 425g jars of mincemeat as gifts to six of your friends. Do you have enough mincemeat to fill 6 jars?

4. Rewrite the mincemeat recipe to make enough to give as gifts (see previous question).

5. Look up the price of the mincemeat ingredients online (assume you have all the spices already). How much will it cost to make?

6. You want to make 60 muffins for your child's school fair. Work out how much of each ingredient you will need.

7. Change the quantities for the Mincemeat Frangipane Tart from ounces to grams, using a conversion of 1oz = 25g

8. You decide to make another batch of mincemeat but you only have 150g of suet left. Rewrite the mincemeat recipe, reducing the other ingredients proportionally.

Christmas recipe activities

Name _____ Date _____

Mincemeat

This makes a small quantity of mincemeat but the recipe can easily be doubled.

Don't put this into jars for a *week,* as *the fruit swells up and the jars will overflow! This can be used as soon* as *it* is *ready to go into jars. It will keep for up to* a *year.*

12 oz cooking apples (prepared weight), peeled, cored and grated
1lb 4 oz mixed fruit
3oz candied peel
8 oz beef suet
8 oz sugar
Grated zest and juice of a lemon
½ level teaspoon ground nutmeg
¼ level teaspoon ground cloves
¼ level teaspoon ground cinnamon
¼ level teaspoon salt
2 tablespoons brandy

Put everything into a large bowl and mix together. Cover the bowl. Stir every day for a week. Put into jars.

The liquid tends to settle at the bottom of the jar so, before using it, tum the jar upside down and give it a *good shake – making sure the lid is done up tightly first!*

Christmas recipe activities

Name _____ Date _____

Mincemeat and Sultana Muffins

10 oz (280g) plain flour
2 teaspoons (10ml) baking powder
1½ teaspoons (2.5ml) bicarbonate of soda
1½ teaspoons (2.5ml) salt
30z (85g) golden caster sugar
1 egg
8 fl oz (240ml) milk
12oz (350g) ready-made mincemeat
3 fl oz (90ml) vegetable oil or 3 oz (85g) butter, melted
3 oz (85g) sultanas (Note: raisins can be used as an alternative to sultanas.)

Line muffin tins with paper cases. Preheat oven to 190-200°C or Gas Mark 5-6.

In a large bowl, sift together: flour, baking powder, bicarbonate of soda, salt and sugar.
In a separate bowl, beat egg with a fork. Stir in milk, mincemeat and oil/melted butter.

Pour all of liquid ingredients into dry mixture. Stir until just combined, adding the sultanas in the final few strokes. The batter will be lumpy but no dry flour will be visible. Do not over-stir.

Fill muffin cases. Bake for 20-25 minutes until tops are lightly browned and spring back when pressed gently. Allow muffins to cool for several minutes before removing from tin.

Christmas recipe activities

Name _____ Date _____

Mincemeat Frangipane Tart

Pastry	Almond filling	Topping
8 oz plain flour	6 oz butter or margarine	3 oz icing sugar
4 oz butter or margarine, cubed	6 oz caster sugar	Juice of half a lemon
2 oz caster sugar	4 eggs	2 oz flaked almonds
1 egg	6 oz ground almonds	
1 tablespoon water	1 teaspoon almond extract	
	Generous half jar mincemeat	

1. Heat oven to gas mark 5 and put a baking tray on the top shelf.
2. Make the pastry in a food processor. Wrap in cling film and chill for 20 minutes.
3. Roll out the pastry and line an 11 inch flat tin. Prick the base of the pastry with a fork. Chill for 10 minutes. Line the pastry case with parchment paper and fill with ceramic baking beans. Place on the hot baking tray and bake blind for about 15 minutes until set and pale brown. Remove the beans and paper and return to the oven for about 10-15 minutes until the base is cooked.
4. Next make the filling – no need to wash up the food processor. Process the butter and sugar until creamy, add the eggs and blend, then mix in the ground almonds and almond extract.
5. Spread a thin layer of mincemeat over the pastry base and spoon the almond mixture over the top.
6. Bake in the preheated oven for 30-40 minutes until the filling is set.

Make a glacé icing from the icing sugar and lemon juice, adding a little water to make it a pouring consistency. Spread over the tart and sprinkle with flaked almonds. Return to the oven for about 10 minutes. Serve warm or cold.

Christmas recipe activities

Answers and notes

1. 300g apples, 500g mixed fruit. 75g candied peel, 200g suet, 200g sugar.

2. 1275g

3. No, you only have enough to fill 3 jars.

4. Double the quantity of all the ingredients.

5. Prices will vary.

6. 60 ÷ 12 = 5, so you need 5 times as much of each ingredient:

1400g plain flour. 10 teaspoons (50ml) baking powder, 2½ teaspoons (12.5ml) bicarbonate of soda, 2½ teaspoons (12.5ml) salt, 425g golden caster sugar, 5 eggs, 1200ml milk, 1750g mincemeat, 450ml vegetable oil or 425g melted butter, 425g sultanas.

7. Pastry: 200g plain flour, 100g butter or margarine, 50g sugar.
Filling: 150g butter or margarine, 150g caster sugar, 150g ground almonds.
Topping: 75g icing sugar, 50g flaked almonds.

8. 150g of suet is 3/4 of the original amount.
The revised quantities are: 225g apples, 375g mixed fruit, 55g candied peel (rounded down to nearest 5g), 150g suet, 150g sugar, 1½ tablespoons brandy. The remaining ingredients (lemon, spices) are in very small quantities and can be left unchanged.

Teaching notes

For Entry 3-L1 provide a metric version of the mincemeat recipe (see answer 1 above) and omit questions 1, 7 and 8 (support may also be needed with Q6).

Recipes have been collected and adapted from a variety of long-forgotten sources. Photos are copyright Judith White 2013.

Christmas recipe activities

Curriculum mapping

FUNCTIONAL MATHEMATICS 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 and the Adult Numeracy standards. ✓ *= main coverage and range skills covered in this resource. Exact coverage will vary with each student group and with how the teacher uses the resource.* However, in Functional Mathematics exams, it is the **process skills** that are assessed (see page 7) and they should always be stressed and developed during mathematics teaching and learning.

Entry Level 3

a) add and subtract using three-digit numbers ✓
b) solve practical problems involving multiplication and division by 2, 3, 4, 5 and 10 ✓
c) round to the nearest 10 or 100
d) understand and use simple fractions
e) understand, estimate, measure and compare length, capacity, weight and temperature
f) understand decimals to two decimal places in practical contexts
g) recognise and describe number patterns
h) complete simple calculations involving money and measures ✓
i) recognise and name simple 2D and 3D shapes and their properties
j) use metric units in everyday situations ✓
k) extract, use and compare information from lists, tables, simple charts and simple graphs ✓

Level 1

a) Understand and use whole numbers and understand negative nos. in practical contexts
b) Add, subtract, multiply and divide whole numbers using a range of strategies ✓
c) Understand and use equivalences between common fractions, decimals and percentages ✓
d) Add and subtract decimals up to two decimal places
e) Solve simple problems involving ratio, where one number is a multiple of the other ✓
f) Use simple formulae expressed in words for one- or two-step operations
g) Solve problems requiring calculation, with common measures, including money, time, length, weight, capacity and temperature ✓
h) Convert units of measure in the same system ✓
i) Work out areas and perimeters in practical situations
j) Construct geometric diagrams, models and shapes
k) Extract and interpret information from tables, diagrams, charts and graphs
l) Collect and record discrete data and organise and represent information in different ways
m) Find mean and range
n) Use data to assess the likelihood of an outcome

Level 2

a) understand and use positive and negative numbers of any size in practical contexts
b) carry out calculations with numbers of any size in practical contexts, to a given number of decimal places
c) understand, use and calculate ratio and proportion, including problems involving scale ✓
d) understand and use equivalences between fractions, decimals and percentages
e) understand and use simple formulae and equations involving one or two operations
f) recognise and use 2D representations of 3D objects
g) find area, perimeter and volume of common shapes
h) use, convert and calculate using metric and, where appropriate, imperial measures ✓
i) collect and represent discrete and continuous data, using information and communication technology (ICT) where appropriate
j) use and interpret statistical measures, tables and diagrams, for discrete and continuous data, using ICT where appropriate.
k) use statistical methods to investigate situations
l) use probability to assess the likelihood of an outcome

References: Ofqual (2009), *Functional Skills criteria for Mathematics: Entry 1, Entry 2, Entry 3, level 1 and level 2.* http://www2.ofqual.gov.uk/downloads/category/68-functional-skills-subject-criteria

This resource also covers many **adult numeracy** http://www.excellencegateway.org.uk/sflcurriculum elements. For related resources and curriculum links please visit the download page for this resource at www.skillsworkshop.org

Christmas recipe activities Curriculum mapping

FUNCTIONAL MATHEMATICS PROCESS SKILLS and SKILL STANDARDS (SS)

Process Skills (all levels)	Entry 3 SS	Level 1 SS	Level 2 SS
Representing *Selecting the mathematics and information to model a situation*			
■ 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	- 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	- 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	- Understand routine and non-routine problems in familiar and unfamiliar contexts and situations - Identify the situation or problems and identify the mathematical methods needed to solve them - Choose from a range of mathematics to find solutions
Analysing *Processing and using mathematics*			
■ 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	- Apply mathematics to obtain answers to simple given practical problems that are clear and routine - Use simple checking procedures	- Apply mathematics in an organised way to find solutions to straightforward practical problems for different purposes - Use appropriate checking procedures at each stage	- Apply a range of mathematics to find solutions - Use appropriate checking procedures and evaluate their effectiveness at each stage
Interpreting *Interpreting and communicating the results of the analysis*			
■ 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	- Interpret and communicate solutions to practical problems in familiar contexts and situations	- Interpret and communicate solutions to practical problems, drawing simple conclusions and giving explanations	- Interpret and communicate solutions to multistage practical problems in familiar and unfamiliar contexts and situations - Draw conclusions and provide mathematical justifications

Skillsworkshop tips

✓ = tip that works particularly well with this resource

To develop this skill, encourage learners to:

Represent

■ Highlight information they need and/or cross out unneeded information. ✓
■ Arrange or reorganise given or selected information as needed e.g. in a table or list. ✓
■ Show all their working out. ✓

Note that calculators are permitted at all levels of Functional Maths assessment but learners should get into the habit of recording all their working out – whether or not a calculator is used.

Analyse

■ Check all their calculations or procedures and show proof that they have done so.
■ Investigate other options / situations (e.g. research related recipes on the web). ✓
■ Create new questions about given information and try them out on others. ✓
■ Mark each other's work.

Interpret

■ Draw conclusions
■ Discuss and justify their choice of method and their answer. ✓
■ Explain their answers and conclusions to others – verbally ✓ and in writing.