

BGE: Health & Food Technology

Level 3

Numeracy Skills



Name: _____

Class: _____

Teacher: _____

Success Criteria

We are learning how to apply our numeracy skills to solve a range problems.

Success criteria

- I can work with others to interpret questions successful to work out solutions.

- I can identify how patterns and shapes develop through preparing and cooking ingredients.

- I can solve problems by carrying out calculations, using my answers to make comparisons and informed choice for real life situations.
Fractions, decimal fractions and percentages: [MNU 3-07a](#)

- I can budget effectively, to manage money and plan for future events.
Money: [MNU 3-09](#)

- Using simple time periods, I can calculate time durations
Time: [MNU 3-10a](#)

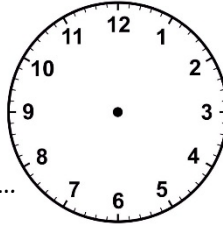
Time Management & Cooking

Mark the answer on the clocks below:

Cupcakes takes 15 minutes to cook

The cupcake went in the oven at 1225

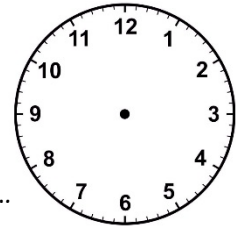
The cupcake should come out the oven at ...



A pasta bake takes 1hr 5m to cook

The pasta went in the oven at 0942

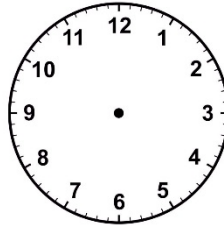
The pasta should come out the oven at ...



A brownie takes 20 minutes to cook

The brownies went in the oven at 1554

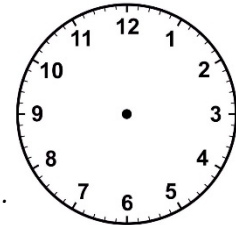
The cake should come out the oven at...



A pizza takes 12 minutes to cook

The pizza went in the oven at 1859

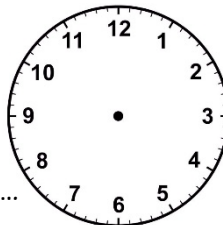
The pizza should come out the oven at ...



An apple crumble takes 50 minutes to cook

The apple crumble went in the oven at 1730

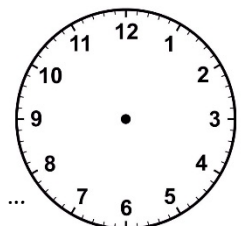
The apple crumble should come out the oven at ...



A roast chicken takes 2hrs 45mins to cook

The roast chicken went in the oven at 1305

The roast chicken should come out the oven at ...



Exploring Shapes & Patterns

Complete the table below by researching what food products or recipes include the following shapes;

Shape	Recipe
flat	
curved	
straight	
round	
sides	
edge	
circle	
square	
triangle	
rectangle	
star	

Find two recipes that use 3 different shapes in the method:

Recipe Title 1: _____

Shape 1:

Shape 2:

Shape 3:

Recipe Title 2: _____

Shape 1:

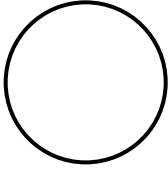
Shape 2:

Shape 3:

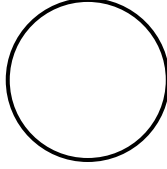
Portions & Fractions

1. Mark the portion sizes on the following food items:

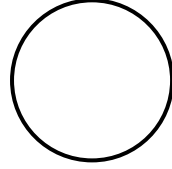
$\frac{1}{4}$ of a 8 slice pizza



$\frac{1}{8}$ of a 8 slice pizza



$\frac{1}{3}$ of a 8 slice pizza



Split this Swiss roll
into 4 even slices



Split this Swiss roll
into 12 even slices



Split this Swiss roll
into 9 even slices



Fractions, Decimals & Percentages

1. To feed some animals in a zoo 6.3kg of rice was mixed with 4.17kg. The animals ate 8kg of feed. How much feed is left?

2. On the school trip there is a 13:1 ration pupils: if 6 staff members are needed for the trip, how many pupils are going?

3. Eight bottles of water cost £6.40. The teachers need to bring one bottle of water for each pupils and teacher going on the trip. Four pupil cannot attend the tip due to illness: How many bottles of water are needed so each person on the trip has one?

What is the total cost of the water for the trip?

4. 874 cans of fizzy juice are to be sold in containers which can hold 9 cans. How many containers are needed to hold all the cans of fizzy juice?

5. What is the price to rent a crepe machine at a winter market for 3 weeks? The upfront deposit of the machine is £90 and £40 per day after this.

6. A crepe costs £4.50 before discount: to attract more customers to the crepe stall you are advertising money off: work out the price to the consumer.

Crepe Filling & Price	Discount %	Price to Consumer
Nutella & banana	2%	
White chocolate & raspberries	5%	
Cream & melted dark chocolate	10%	

7. There is two British Beef Burger stalls at the winter market.

Calculate which offer is the best buy

BEEF BURGER
£3.40 per burger
20% off

Burger Burger
£3.65 per burger
25% off

Ready Steady Bake

Task 1 - Costing

You have been asked to bake something to sell at a bake sale.

Working in your team, compete against other groups in your class to calculate the cost of each recipe below. Work out the cost to make 40 portions of the recipe, and calculate the profit you will make.

Each cake will be sold for £1.50 Rank the recipes in order of highest to lowest profit - The team that makes the most profit wins!

Price List

Ingredient	Cost of ingredient	Ingredient	Cost of ingredient
Egg	£1.00 Box of 6	Condensed Milk	£1.00 Per Can
Sugar	£2.65 Per 2kg	Egg	£2.00 box of 15
Oil	£3.40 Per litre	Plain Flour	£0.36 Per kg
digestives	0.33p Per 400g	Cocoa powder	£2.00 Per 100g
Cocoa powder	£1.39 Per 250g	Mixed spice	£0.59 Per 10 g
Baking powder	£0.41p Per 100g	Dark brown sugar	£2.87 Per kg
Vanilla essence	£3.69 Per 100ml	Sugar	£1.60 Per kg
Chocolate chips	£1.10 Per 100g	Vanilla essence	16.7p Per 10ml
S.F. Flour	£0.53 Per kg	Margarine	£2.10 Per kg
Grates Carrot	£2.00 Per kg	Butter	£6.40 Per kg
Oil	£0.09 Per 100ml	Coconut	£0.53 Per 100g
Egg	£2.00 box of 15	Golden Syrup	£2.12 Per kg
Icing sugar	£1.50 Per kg	Carrot	£0.16 Per 100g
Golden syrup	£0.31 Per 100g	Digestives	£0.11 Per 100g

Costing Method

cost to buy the ingredient
 quantity of ingredient in packet X quantity required in recipe

Example: margarine

£2.10

1000 x 100 = £0.21

RECIPE 1: CHOCOLATE BROWNIES (serves 8)

Ingredients

100g Margarine

25g cocoa powder

1 egg

100g sugar

2.5ml vanilla essence

50g plain flour

BROWNIES COSTING

Ingredient	Cost of ingredient	Amount needed in recipe	Working out	Total cost
e.g. Margarine	£2.10 Per kg	100g	$\frac{2.10}{1000} \times 100$	0.21p

RECIPE 2: CHOCOLATE CHIP COOKIES (serves 12)

Ingredients

200g SR flour

100g margarine

100g caster sugar

1 egg

20g chocolate chips

CHOCOLATE CHIP COOKIES COSTING

Ingredient	Cost of ingredient	Amount needed in recipe	Working out	Total cost

RECIPE 3: CHOCOLATE TRUFFLES (serves 6)

Ingredients

25g Margarine

$\frac{1}{4}$ tin of Condensed milk

7.5ml cocoa powder

15ml coconut

6 digestives (1 biscuits is 15g)

TRUFFLES COSTING

Ingredient	Cost of ingredient	Amount needed in recipe	Working out	Total cost

Calculating Profits

	Cost to make 40...	Profit made when sold at £1.50 each
Brownies		
Chocolate chip cookies		
Truffles		
Cupcakes		
Carrot cake		

Rank the Recipes

Key:

1: most profit → 5: least profit

1	2	3	4	5

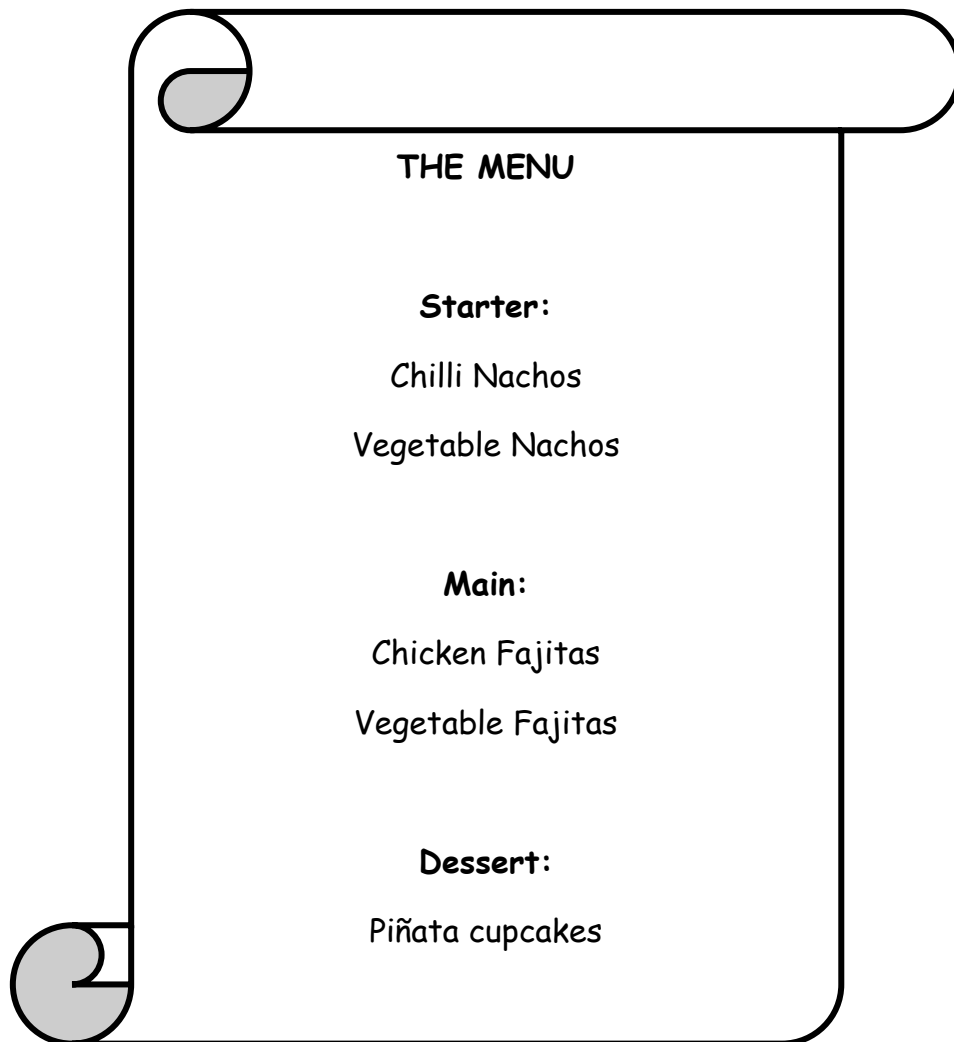
Preparing for an Event

Task 2 - Food Ordering

You have been asked to collate a food order for an up-coming event taking place in your school. The M@ngos Restaurant is having a Mexican themed dinner with 18 guests attending!

The guests have pre ordered the meals to allow a food order to be made.

Three of the eighteen guests have selected the vegetarian option.



Use the recipes to calculate the quantities of ingredients that should be ordered:

RECIPES

Chilli Nachos - One Portion	Vegetable Nachos - One Portion
50g Tortilla Chips	50g Tortilla Chips
30g Chopped Tomatoes	30g Chopped Tomatoes
2.5ml Garlic Powder	2.5ml Garlic Powder
2.5ml Smoked Paprika	2.5ml Smoked Paprika
30ml Sweet Chilli Sauce	30ml Sweet Chilli Sauce
30g Mince Beef	$\frac{1}{4}$ Yellow Pepper
1 X Onion	1 X Onion
	30g Mixed Beans
	10ml Oil

Chicken Fajitas - One Portion	Vegetable Fajitas - One Portion
50g Cooked Chicken	3 X Mushrooms
$\frac{1}{4}$ Red Pepper	$\frac{1}{4}$ Red Pepper
$\frac{1}{4}$ Green Pepper	$\frac{1}{4}$ Green Pepper
$\frac{1}{4}$ Yellow Pepper	$\frac{1}{4}$ Yellow Pepper
$\frac{1}{2}$ Red Onion	$\frac{1}{2}$ Red Onion
10ml Oil	10 ml Oil
10ml Sour Cream	10ml Sour Cream
10ml Guacamole	10ml Guacamole
20g Grated Cheese	20g Grated Cheese
2 X Small Tortilla Wraps	2 X Small Tortilla Wraps
2.5ml Chilli Flakes	2.5ml Chilli Flakes
2.5ml Italian Seasoning	2.5ml Italian Seasoning
30ml Chopped Tomatoes	30ml Chopped Tomatoes

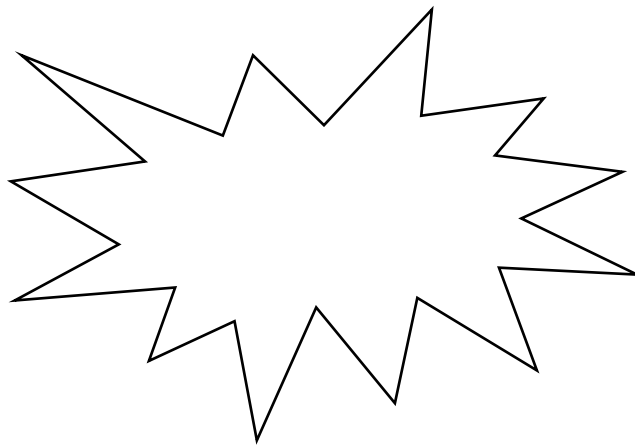
Piñata Cupcakes - Makes 6 Cupcakes
50g SR Flour
50g Sugar
50g Margarine
1 X Egg
5ml Vanilla Essence
30ml Coloured Sprinkles

Planning a meal

Task 3 - Money Management

You have been asked by your local supermarket to create a meal suitable for a group of four teenagers to eat the night before a sports event. The meal must be two courses, either starts and main, or main and dessert. A budget of £5 has been set.

1. Brain storm meal ideas that are suitable



Write the name of the two dishes as a group you have decided to make:

Starter: _____

Main: _____

Dessert: _____

