AQA Food Technology Practice Papers 2015

Pre-release context for Section A:
'Pastry Products Produced by Local Bakeries'

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Contents

Teacher's Introduction

In the run-up to the summer examinations the importance of preparing for the examination becomes greater. With this in mind, the pack contains two examination papers, with Section A based on the summer 2015 pre-release design context (Pastry products produced by local bakeries).

Each paper follows the structure of a typical AQA examination paper, and as such can be used as either mock examinations using the full paper, or as revision materials by considering each question individually.

Alongside each paper there is a mark scheme which has indicative answers for each question. Combining these together can provide students with an invaluable insight into what is required of them when they sit the examination during the summer.

This resource is intended to supplement your teaching only.

As with all pre-release material it is the teacher's responsibility to decide in what way to assist their students, and how this resource in particular can be used to fit into that assistance.

The resources here are provided as an interpretation of the preliminary material.
The author does not have any special knowledge of what to expect on any particular exam.

Name	

ZigZag Education supporting
AQA GCSE Design Technology
Food Technology – Unit 1 [45451]

Practice Paper 1
Pre-release Context: Pastry Products Produced by Lo

Time: 2 hr

Instructions

- Use black ink or black ballpoint pen. Use pencil and coloured pencils only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this answer book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 120.
- The question in Section A relates to the pre-release context.
- You are reminded of the need for good English and clear presentation in your answers.
- Quality of written communication (QWC) will be assessed in Question 3.

Section A

Answer **all** questions in the spaces provided

Question 1 is about pastry products from a local bakery.

You are advised to spend about 30 minutes on this question.

1 A local bakery wants to develop a range of savoury pastry products.

Here are the design criteria for this product. It must:

- be an individual portion
- have sensory appeal
- be suitable for batch production
- be finished using an appropriate technique

a) Using notes and sketches, show two different design ideas for the ex... how your ideas meet the design criteria stated earlier.

Design Idea 1
Product name: .....

Design Idea 2
Product name: .....

b) Circle the design that you will choose to develop:

Design 1 Design 2

Complete a plan for making your chosen design idea in a test kitc

Main Stages of Making	Quality Control Checks

c) The bakery has decided that the new savoury pastry product will b
sold in a number of local shops.

i. Name one material that is suitable for packaging your design

.....

ii. Give three reasons why this material is suitable.

1.....

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2.....

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3.....

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iii. The packaging for the product must be correctly labelled.
State four pieces of information that the law states must be o

1.....

2.....

3.....

4.....

Section B

Answer **all** questions

Question 2 is about the functional properties of food.
You are advised to spend about 10 minutes on this question.

2 a) State the two sources of sugar.

1 .....

2 .....

b) Name four foods that are high in sugar.

1 .....

2 .....

3 .....

4 .....

c) State the name for the function carried out by sugar in each of the

When yeast releases carbon dioxide in bread-making

.....

Added to tea and coffee

.....

Added to jam to prevent bacteria growth

.....

Gives the characteristic texture to food, e.g. ice cream and cake

.....

Adds colour, when sugar is heated it turns golden brown

.....

Question 3 is about manufacturing food products in large quantities.
You are advised to spend about 30 minutes on this question.

3 a) State three types of hazards in food that may be caused during p
an example for each.

1 .....

2 .....

3 .....

b) i. What is the purpose of quality control checks?

.....

ii. Why are quality control checks needed?

.....

c) State what HACCP means.

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Question 3 is continued on the following pag

d) A company makes frozen pizzas. They have chosen to 'buy in' th
already been grated.

i. lain the advantages to the company of buying in these in

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ii. Explain the potential disadvantages to the company of buyin

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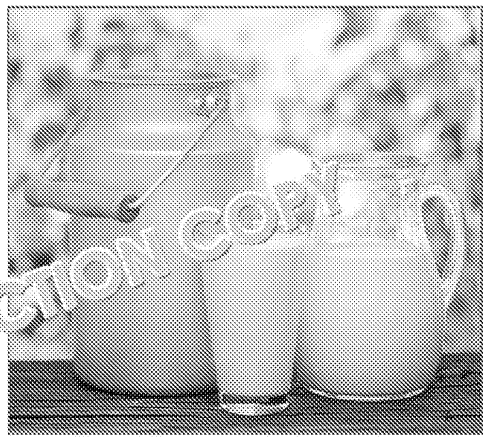
iii. The company is considering using genetically modified veget
Discuss the advantages and disadvantages of using GM foo

The quality of written communication (QWC) will be assessed

Question 4 is about the storage of food products.
You are advised to spend about 10 minutes on this question.

4 a) One method to extend the life of fresh milk is sterilisation. Name t
be used to extend the life of liquid milk and explain the differences



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b) A manufacturer wants to extend the shelf life of the following
preservation should be used for each?

Blackcurrants .....

Baby food .....

Carton of soup .....

Question 5 is about the effects of ingredients in food products.
You are advised to spend about 25 minutes on this question.

5 a) Food ingredients can have physical, sensory and nutritional effec
for each.

Physical: .....

.....

Sensory: .....

.....

Nut[illegible]na

.....

b) Meringue, bread and jelly are examples of foods that use the func
protein. Define what is meant by denaturation and coagulation. Y
illustrate your answer, if needed.

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c) Explain wh[illegible]c in content of flour will affect its baking qualit

.....

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d) Acidic ingredients can affect the taste of a food, the structure or the r

i. Explain how acids affect poached eggs and milk.

.....

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.....

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ii. Bicarbonate of soda and vinegar are added to meringue. Exp
these ingredients.

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iii. Explain why citric acid is used in fruit salads and with meat.

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Question 5 is continued on the following pag

e) i. Explain what is meant by the term 'additive' in food technolog

.....

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ii. Give three reasons why food additives are used.

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iii. Give three examples of different types of additives and what

1. Additive .....

   Use .....

2. Additive .....

   Use .....

3. Additive .....

   Use .....

Question 6 is about cultural considerations in food products.
You are advised to spend about 10 minutes on this question.

6 a) Explain why consumers expect to find a wide range of multicultura supermarkets and fast-food outlets.

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b) Religious and cultural preferences affect people's food choices. D beliefs or preferences affect food choices:

Muslim (Islam): .....

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Jewish (Judaism): .....

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Vegetarian: .....

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Name	

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Food Technology – Unit 1 [45451]

Practice Paper 2
Pre-release Context: Pastry Products Produced by Loc

Time: 2 ho

Instructions

- Use black ink or black ballpoint pen. Use pencil and coloured pencils only for drawing.
- Fill in the boxes at the top of this page.
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- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this answer book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 120.
- The question in Section A relates to the pre-release context.
- You are reminded of the need for good English and clear presentation in your answers.

Section A

Answer **all** questions in the spaces provided

Question 1 is about designing.
You are advised to spend about 30 minutes on this question.

1 A local bakery is developing a range of savoury pastry products.

a) i. Name the type of pastry that would typically be used for this s

.....

ii. State the ratio of flour to fat normally found in this type of pas

.....

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iii. Name the three sources of fat.

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iv) Explain why some pastries are made using a mixture of differ

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Question 1 is continued on the next page

b) Using notes and sketches, show two different design ideas for the pro

Design Idea 1
Product name: .....

Design Idea 2
Product name: .....

c) Circle the design that you will choose to develop:

Design 1 Design 2

Complete a plan for making your chosen design idea in a test kitc

Main Stages of Making	Hygiene and S

d) State three different quality checks that the test kitchen may carry

1 .....

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2 .....

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3 .....

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Section B

Answer **all** questions

Question 2 is about the nutritional properties of food.
You are advised to spend about 10 minutes on this question.

2 a) Rickets can result from not enough Vitamin D in the diet.
Name the other main (non-diet) source of Vitamin D.

.....

b) i. People need iron in their diet. Name three foods that are a go

.....

2.....

3.....

ii. What is the function of iron in a person's diet?

.....

.....

.....

c) Name the two vitamins that help the body to absorb iron and calci

1 .....

2 .....

d) Vitamins B and C are water-soluble. They dissolve in water and c
Name the four fat-soluble vitamins. For each, name one food that

1. Vitamin..... Source .....

2. Vitamin..... Source .....

3. Vitamin..... Source .....

4. Vitamin..... Source .....

Question 3 is about technological developments.
You are advised to spend about 12 minutes on this question.

3 a) Name three types of SMART foods.

1 .....

2 .....

3 .....

b) Some foods have been altered by genetic modification. Give two e
modified foods and describe how they have been changed.

1 .....

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2 .....

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c) Modified starch has various uses in food production.
State two products that use modified starch and explain what func

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d) Explain one way in which nanotechnology can be used in the food

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Question 4 is about the storage and packaging of food products.
You are advised to spend about 24 minutes on this question.

4 a) Explain why refrigerators are suitable for the short-term storage of

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b) Campylobacter is the most common type of food poisoning in the

i. State two foods that could cause campylobacter food poisoni

.....

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ii. State the incubation period for th[illegible] food poisoning.

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iii. [illegible]cribe its symptoms.

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c) Moulds and yeasts are two types of microorganism that can cause

i. State a third type of microorganism that can cause food spoila

.....

ii. Give one example of how each of these microorganisms can

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d) E th ons for using Modified Atmospheric Packaging (M

.....

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e) Suggest three ways that packaging could be changed to make it n friendly.

1 .....

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2 .....

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3 .....

.....

f) Suggest packaging methods for the following food items:

Soup.....

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Marmalade.....

.....

g) Explain the difference between 'Use by' and 'Best before' dates.
Your answer should include examples of foods that each of these

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Question 5 is about evaluating products.
You are advised to spend about 10 minutes on this question.

5 a) Identify and describe the two types of standard tests used when p

1 .....

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2 .....

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b) Explain how it can be ensured that sensory testing is fair.

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Question 6 is about social, economic, cultural and environmental considera
You are advised to spend about 13 minutes on this question.

6 a) What is meant by 'ethical factors' in food technology?
Give one example of how ethical factors affect food.

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b) W... th... ...nce between food allergy and food intolerance?

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c) What is meant by the term 'organic food'?

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d) S... ha... ...eant by 'food miles'. Explain why they are an envir...

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e) Fatty foods are popular in the British diet. Discuss the dangers of e

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Question 7 is about food additives.
You are advised to spend about 10 minutes on this question.

7 Additives are used in a huge range of food products, and consumers p
ones. Discuss why a manufacturer may use additives in their food pro

You will be assessed on your quality of written communication.

Practice Paper 1 Mark Scheme

Section A

1 a Award marks as follows:
- 0–4 marks: One design idea meeting most of the criteria or two d
one design criterion only. Product choice may be inappropriate.
- 5–8 marks: Basic ideas for two relevant products. Most of the des
Communication may lack detail.
- 6–12 marks: All design criteria addressed for both products. All m
explained. High standard of presentation.

b Award 1 mark for each of the following points, with a maximum of 6 m
making and 3 marks each for the quality n hygiene and safety

Stages of making:
- Statement of ingr use
- Relative p for the different ingredients
- Nam sses, e.g. rubbing in, folding, glazing, baking
- Logical sequence of operations
- y times for cooking and preparing
- Key temperatures, e.g. oven for cooking
- Finishing techniques including decoration and the addition of fillin
- A clear logical and workable sequence of stages

Quality:
- Size/portion control: weight of ingredients, size of container for ov
- Checking that the cake is cooked adequately
- Consistency of finishing techniques
- Feedback from any applied checks (e.g. what to do if…)

Hygiene and safety:
- Personal hygiene (e.g. clean hands)
- Personal Protective Equipment (e.g. oven gloves)
- Kitchen hygiene (e.g. clean surfaces, equipment)
- Temperature measurement
- Any specific safety points for workers using named pieces of equ

c i Award 1 mark for stating a suitable material, e.g. plastics, aluminium,
Do not accept cardboard.

ii Award 1 mark each for up to three points, such as:
- Strength
- Low cost (do not accept just 'cost')
- Can be sealed
- Provides a barrier to contamination
- Water resistant
- Mouldable
- Easy to stack and store
- Recyclable
- Biodegradab

iii 1 mark each up to a maximum of 4 marks for any of the followi
e ingredients and their quantities.
- Name of the food.
- Any special storage conditions or conditions of use
- An appropriate indication of durability, e.g. best before / use by da
- The name and address (or registered office) of the manufacturer
seller within the EC.
- Place of origin or provenance of the food (if manufacturers fail to
it might mislead a purchaser as to the true origin or provenance o
- Instructions for use (if it would be difficult to make appropriate use
such instructions).

Section B

2 a One mark each for sugar cane and sugar beet

b Award 1 mark for each suitable response, e.g. sweets, chocolate, car cakes, biscuits, energy drinks, jam, breakfast cereals, tinned fruit, dri milk shakes, fruit cordial, fruit juice, ketchup.

c Award 1 mark each for any of the following:
- When yeast releases carbon dioxide in bread making – Fermen
- Added to jam to prevent bacteria growth – Preserve/Preservatio
- Gives the characteristic texture to food, e.g. ice cream and cake
- When sugar is beaten with butter or eggs it helps trap air to mak Aerates
- Adds colour, when sugar is heated it turns golden brown – Cara

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3 a Award 1 mark per type of hazard and a further mark for the example.
- Physical hazard: foreign material, which is something that shoul fo[illegible] can cause an injury to the person eating it. These m [illegible] the machinery in the factory, or a natural hazard such as a
- Biological hazard: infected by bacteria; this may lead to food po
- Chemical hazard: chemicals such as cleaning fluids get into the cause serious illness.

b i Quality control involves checking the standards of a food product as i made to ensure that it meets the design and manufacturing specificat

ii May be identified in HACCP; if things go wrong during production, the to eat.

c Hazard Analysis Critical Control Point

d i Award 1 mark for each of the following:
- Save time; reduce the number of processes.
- Keep the assembly process as simple as possible.
- Achieve consistent outcomes; each product the same.
- Reduce production costs; low skill labour.
- Maintain stock control; some have long shelf lives so they can b discount for bulk buying.

ii Award 1 mark for each of the following:
- The items could contain artificial colours and flavour enhancers
- The amounts of salt/fat/sugar could be more than they would lik
- The quality of the base may not be as good as if they made thei
- The overall cost of the ingredients could be higher.

iii ard 1 mark each for up to eight of the following points:
- GM foods use the insertion of ge[illegible] ca[illegible]ing a specific trait fro another.

Advantages
- It is cheaper and more plentiful.
- Plants have their genetic make-up tweaked in a laboratory to inc disease resistance.
- Regulatory structures that govern GM are stricter than for many must apply to the UK government or the EU for permission.
- Food packaging clearly labelled if foods contain GM ingredients eat them or not.
- They help address the need for more sustainable agriculture, gl and climate change.

Disadvantages
- It is meddling/messing with nature.
- Consumer knowledge and acceptance of GM foods is adversely media.
- People think that GM crops could 'escape' from their fields/gree pollinate with wild plants, with unknown consequences.
- Can be more expensive to develop and then for the farmers to p to manufacturers.

Up to 4 marks can be awarded for the quality of their written commun for correct spelling, 1 mark for correct use of grammar, 1 mark for goo fourth mark for the correct use of technical language.

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4 a Award marks as follows:
Pasteurisation: little effect on flavour (1) heated to 72 °C (1) and most ba
Sterilisation: heating to 104 °C for 40 minutes which can extend th 10 days (1).
UHT: heated to [illegible] and all bacteria are killed (1), which allows last for [illegible] with a slight change in its overall taste (1).

b 1 mark for each of the following:
Blackcurrants: chilling
Baby food: canning: as it kills all bacteria and enzymes which could u stomach and also handy to keep in the cupboard for emergencies
Carton of soup: Pasteurisation or sterilisation

---

5 a Award 1 mark for each example.
- Physical: butter makes the biscuit/pastry short and crumbly
- Sensory: sugar provides sweetness
- Nutritional: bran adds fibre

Examples are at the marker's discretion.

b Award 2 marks each for explanations similar to the following. Award 1 explanation that lacks detail.
Denaturation: the change in the structure of protein molecules; the ch heat, salts, pH or mechanical action
Coagulation: when egg white is cooked it changes colour (clear to wh firmer (sets). The heat causes the proteins to unfold and form a solid s irreversible.

c Award 2 marks for an explanation similar to the following. Award 1 m explanation that lacks detail:
The amount and type of gluten depends on the flour type and quality. a maximum of 17%, plain flour 10% and weak or soft flour 8%. The lo content the shorter and crumblier the texture.

d i Adding vinegar to the water when poachin[illegible]s speeds up the coag egg. (1)
Adding an acid to milk allow[illegible]rdle (separate) (1) and is used in making yogurt.

ii Award [illegible] each explanation.
[illegible]or use of soda added to the sugar before beating it in to the egg [illegible]y, and helps to prevent leakage of liquid when the meringue an the under-coagulation of protein.
Vinegar (acetic acid) is added to meringue to create a soft marshmall when cooked.

iii 1 mark for fruit salad, 2 marks for meat. Award one mark for each of t
- The acid prevents the freshly cut fruit from browning; stops enzy
- Marinades that meats are soaked in contain vinegar.
- Meat fibres are tenderised as the collagen in the meat is conver moisture is present.

e i A substance which can be synthetic or natural, which is added in sma
during processing.

ii Award 1 mark for each of the following:
- Add to product appeal; colour, flavour
- Prolong shelf life, keep food safe to eat
- Add additional quality to a processed food

iii Award 1 mark for each additive named up to a maximum of three and
explanation of what each additive is used for.
- Colours: add colour or restore colour lost during processing
- Preservatives: increase shelf-life by preventing microorganisms
- Antioxidants: prevent fatty foods going rancid
- Emulsifiers: enable oil and water to mix together and form an em
- Stabilisers: stop an oil and water mixture from separating
- Sweeteners: replace or enhance sweetness
- Flavours or flavour enhancers: improve the taste of a food

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6 a Award 1 mark for each reason stated, with a further mark for the expl
number of 4 marks.
- The communities we live in are more multicultural, as they are m
races and religions that all have their own traditional cuisines.
- TV cookery programmes encourage people to try new foods: loc
international cuisine.
- Cheaper flights and holidays mean increased travel abroad and
exposed to new cultures and foods.
- Improved transportation (air, sea, rail and land) and technology
supermarkets and manufacturers do not need to rely on local or

b Award 1 mark per point, with a maximum of two per belief or preferen
- Muslim (Islam)
  Halal meat (prepared according to Muslim law); do not eat pork
- Jewish (Judaism)
  Kosher food (fit, proper or correct according to Jewish law)
  Meat and dairy must not be eaten in the same meal; fish, eggs,
  grains can be eaten with either meat or dairy
- Vegetarian
  Choose not to eat meat, with or without eggs and dairy products
  choice; eat anything that is not of animal origin

Practice Paper 2 Mark Scheme

Section A

1 a i Award 1 mark for shortcrust

ii Award 1 mark for 2:1; to avoid penalty for the carry-through of a wrong
if the answer was rough puff, allow 1 mark for 4:3 and if the answer wa
for 4:1

iii Award 1 mark each for animal, fish and vegetable

iv Award 1 mark each up to a maximum of 4 marks for any of the followi
- Naming different types of fat used in pastry, e.g. lard, butter, oil, m
- Describing differences in applications of fats in named products (as e
- White fats (lard) ideal for shortening (crumbly/flaky textures)
- Butter/margarine add moisture
- Lard/...
- ...lour
- Health, e.g. saturated vs unsaturated fats
- Mixture may allow best of different properties to be combined

b Award marks as follows:
- 0–3 marks: One basic design idea with limited detail or explanatio
may be inappropriate.
- 4–7 marks: Basic ideas for two relevant products. Some details o
attractiveness to customers or manufacturing. Communication ma
- 8–10 marks: Detailed design ideas for both products. All main fea
High standard of presentation.

c Award 1 mark for each of the following points, with a maximum of 8 m
making and 4 marks for the hygiene and safety notes.

Stages of making:
- Statement of ingredients to use
- Relative proportions of the different ingredients
- Use of a raising agent (e.g. self-raising flour, baking powder)
- Creaming together the fat and sugar
- Adding beaten egg gradually
- Folding in the flour
- Key times for cooking and preparing
- Key temperatures, e.g. oven for cooking
- Finishing techniques including decoration and the addition of fillin
- A clear logical and workable sequence of stages

Hygiene and safety:
- Personal hygiene (e.g. clean hands)
- Personal Protective Equipment (e.g. oven gloves)
- Kitchen hygiene (e.g. clean surfaces, equipment)
- Temperature measurement
- Any specific safety points for workers using named pieces of equ

d Award 1 mark each up to a maximum of 3 marks for any of the followi
- Weight of ingredients
- Size
- Form/shape of ingredients (e.g. size of grated cheese)
- Shape of product
- Temperature
- Cooking time
- Colour of the finished product

Section B

2 a Sunlight

b i Award 1 mark each for up to three of the following:
Liver, kidney, corned beef, green vegetables, eggs, lentils, cocoa, plain
bread (added by law), dried fruit, TVP (fortified)

ii Award 1 mark each for up to two of the following:
- Essential for the formation of red blood cells
- Lack of iron in the diet may result in iron deficiency anaemia
- Iron is in the blood in the form of haemoglobin, a protein in red bloc
transports oxygen to tissues in the body

c Vitamin C – Iron
Vitamin D – Calcium

d Award 1 mark [illegible] correctly naming the four vitamins, and a further
cor[illegible] fo[illegible]:
- mi[illegible] A (Retinol)
[illegible]y foods, eggs, margarine, green and yellow vegetables
- Vitamin D (Cholecalciferol)
Made by the body when exposed to sunlight
Liver, fish liver oils, oily fish, egg yolk, margarine (by law)
- Vitamin E (Tocopherol)
Lettuce, grasses, peanuts, seeds, wheatgerm oil, milk, and egg yol
- Vitamin K
Leafy green vegetables; bacteria in the gut produce a good supply
can use

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3 a Award 1 mark for any of the following:
- Genetically modified foods / GM Foods
- Modified starch (e.g. instant dessert mix that uses cold milk)
- Probiotic yoghurts/drinks
- Encapsulation – leavening agents in bread, slow release
- Meat analogues, e.g. textured vegetable protein (TVP), myco-prote
- Novel foods and nano foods

b Award 1 mark for the food and the second for the explanation, for exam
- Tomatoes that last longer, look redder in colour and taste better
- Wild wheat characteristics to be transferred to wheat grown as a cr
resistant to disease
- Potatoes can be altered to reduce the absorption of fat during frying
- **Any** reasonable answer that refers to the food being altered to mak

c Award 1 mark each for up to two suitable examples and 1 mark each fo
explanation of its function, for example:
- Granular starches, swell in cold water [illegible] t desserts instantly, e
desserts
- Low-fat products, for ex[illegible]y improve the melting and stretch
mozzarella chee[illegible] and [illegible]nts flavour

d A[illegible] 1 [illegible]n for a suitable example and 1 mark for a correct exp
e[illegible]:
- [illegible]o-emulsions: create double or triple emulsions to improve the s
- Nano capsule protection: binds flavours or fortifies nutrients and all
control-released in to the food

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4 a Award 1 mark each for any of the following points:
- Refrigerators are set at 5 °C or below
- At this temperature microorganism activity is only slowed down
- Decay still occurs at a slower pace

b i Award 1 mark each for two of the following:
- Meat
- Shellfish
- Milk
- Untreated water

ii Two to 10 days

iii Award 1 mark each for the following:
- Diarrhoea
- Abdominal pain

c i Bacteria

ii Moulds: foods that may become mouldy such as bread, jam and chees
Yeasts: break the sugars down and to produce carbon dioxide
Bacteria: They may consume nutrients from the food, accelerate the de
products and produce unwanted by-products, such as toxins or gases

d Award 1 mark for each of the following:
- MAP extends the shelf life of a food by delaying spoilage
- MAP can also prolong shelf life by slowing down colour deterioratio
- The oxygen around the food (needed for bacterial growth) is remov with carbon dioxide and nitrogen
- Commonly used with cold meats, smoked fish, cheeses, salads an

e Award 1 mark for each of the following:
- Make it reusable – reusable packaging can be cleaned and reused are reused
- Make it recyclable – made of materials that can be used again, usu processing; recyclable materials include glass, metal, card and pap
- Make it biodegradable so that it will easily break down in the soil or
- Redesign it so that less packaging is needed

f Soup (1): tin can, tetrapack/carton, plastic containers/tubs
Marmalade (1): glass jar, squeezy plastic bottle, individual airtight plast

g Award up to 6 marks as follows:
- Use by – A specific date by which a food must be used (1); used af cause illness (1)
  Examples – perishable foods, e.g. cool cooked meats, milk, cheese
- Best before – An identified date by when the food should be eaten best (1); eaten after this date is unlikely to cause illness but may no condition (1)
  Examples – crisps, tins of soup/beans, dried coffee (1)

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5 a Award marks as follows:
- Preference test (1): This asks whether people like or dislike a produ using a hedonic scale
- Discrimination test (1), such as a paired comparison test. This asks a particular attribute of a product (1).

b 1 mark for each of the following points:
- Decide whether you want to perform a preference test or a discrimi
- Select a clear area to hold the sensory test. This should be away fron and noise, as these may influence the people taking part in the test
- Explain the task to the participants, so that they know what is expe
- Place as many samples in serving containers as there are people t sample should be coded with a random letter, number or symbol.
- Provide water for the participants and allow rinsing of mouths betw other approaches to remove the flavours.
- Taste one sample at a time and record the responses. Allow for tim so that the participants can record their opinions.

6 a Ethical factors are what people see as morally right or wrong (1).
People may prefer buying fair trade (1) chocolate or bananas as the far
fair price for their food (1) and have better working conditions (1).

b Award 1 mark each for the definition and 1 mark each for a suitable exa
- Food intolerance: where people have to restrict their diet because t
badly to certain types of food, e.g. diabetes, coeliacs, lactose.
- Food allergy: when someone eats the food they are allergic to, the
food is not safe and releases chemicals (histamines) to deal with it
reaction, the person goes into shock and in rare cases people can
nuts, fish, shellfish, soya, wheat or gluten allergy.

c Organic foods have been grown without the use of chemical fertilisers o

d Award 1 mark for each of the following:
- Food miles are the distanc[illegible] travels from where it is grown
bought.
- CO_2 emissio[illegible] concern to the environment; the longer the dis
more CO_2 emissions there will be

e A[illegible] mark for each of the following:
- Obesity
- Coronary Heart Disease (CHD)
- Less physical activity
- Fatty foods that are eaten and then physical activity does not burn
to fat being made in the body and stored, which can lead to CHD a
- People are doing less exercise than they used to, especially as peo
computer games and watching TV

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7 Award 1 mark each for the following points, up to a maximum of four ad
disadvantages.

Advantages
- Using additives allows a wide range of food to be made that meets
e.g. quick, easy, convenient; preservatives, flavours, colours.
- Can improve a particular characteristic of the food, for example, the
chocolate-flavoured milk drink or the beef-flavoured pot noodle.
- Can create the expected qualities of the food, e.g. using colours an
raspberry cream filled chocolates or yellow custard.
- Can allow greater variety in a basic food product, e.g. that different
to. For example, instant noodles flavoured with chicken, beef and t
vegetable, etc.
- Help make sure that all the products are the same when made in a
production; stabilisers in mayonnaise or salad cream, or flavours in
- Can replace any colour or flavour lost when the food was processe
green colour to mushy peas.
- Can prolong the shelf life of the food, for example, bread, cakes an

Disadvantages
- Additives can be used to d[illegible] the flavour, aroma or texture of i
- Some colours and flavours may not be needed; consumers prefer n
products [illegible] really bright artificial-looking colours.
- Allergies to additives are becoming more common; difficult to find c
products which allergy, for example asthma attacks, rashes and hype

Quality of written communication: award 1 mark if written with correct g
English; award a second mark if correct use is made of technology-bas
preservatives/colouring/flavouring/emulsifiers, etc.