

Friday 11 January 2013 – Afternoon

GCSE DESIGN AND TECHNOLOGY Food Technology

A522/01 Sustainable Design

Candidates answer on the Question Paper.

OCR supplied materials:

None

Other materials required:

None

Duration: 1 hour

MODIFIED LANGUAGE



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions in Section A **and** Section B.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. If you need more space, use the lined pages at the end of this booklet. The question number(s) must be clearly shown.
- Do **not** write in the bar codes.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **60**.
- One question is marked with an asterisk (*). Your quality of written communication will be assessed in this question.
- This document has **16** pages. Any blank pages are indicated.

SECTION A

Answer **all** questions.

You are advised to spend about 15 minutes on this section.

On questions 1 – 5 circle your answer.

- 1** Which one of these pieces of information does **not** legally have to be on food packaging?
- (a) Ingredients
 - (b) Bar code
 - (c) Date marking
 - (d) Storage information [1]
- 2** Life cycle analysis means:
- (a) The stages of developing a food product from concept to disposal
 - (b) Disposal of the product
 - (c) The stages of developing a food product from manufacturing to disposal
 - (d) Recycling the product [1]
- 3** Supermarkets encourage consumers to use 'bags for life' to:
- (a) Increase the amount of plastic bags going to landfill sites
 - (b) Increase the amount of non-sustainable resources used
 - (c) Reduce the amount of plastic packaging going to landfill sites
 - (d) Increase their sales of food [1]
- 4** Most left over foods must be used in the next:
- (a) 45 minutes
 - (b) 1 week
 - (c) 24 hours
 - (d) 1 month [1]

5 The carbon footprint of food is the:

- (a) Amount of carbon emissions produced when growing, processing and transporting food
- (b) Gas produced when growing food
- (c) Amount of energy used to cook the food
- (d) Amount of food thrown away

[1]

6 State what this symbol stands for:



..... [1]

7 Name **one** Fairtrade food product.

..... [1]

8 State the name of the gas produced when food waste rots in landfill sites.

..... [1]

9 State **one** British vegetable in season in winter.

..... [1]

10 State **one** reason why we should eat less sugar.

..... [1]

4

Decide whether each of the following statements is **true** or **false**.

Tick (✓) the box to show your answer.

	True	False	
11 We should buy foods which have lots of plastic packaging.	<input type="checkbox"/>	<input type="checkbox"/>	[1]
12 A microwave can reduce the amount of fuel used when cooking food.	<input type="checkbox"/>	<input type="checkbox"/>	[1]
13 Chemical pesticides can be used on organic foods.	<input type="checkbox"/>	<input type="checkbox"/>	[1]
14 Aluminium cans can be recycled.	<input type="checkbox"/>	<input type="checkbox"/>	[1]
15 Composting is an example of secondary recycling.	<input type="checkbox"/>	<input type="checkbox"/>	[1]
			Total [15]

5
SECTION B

Answer **all** questions.

You are advised to spend about 45 minutes on this section.

16 Fig. 1 shows a logo used on fish products.



Fig. 1

(a) Give **two** reasons why a consumer would choose to buy sustainably sourced fish products.

1

.....

2

.....

[2]

(b) Tick (✓) the number of portions of fish we should eat each week.

10	2	5
----	---	---

[1]

(c) State **one** nutrient in oily fish.

..... **[1]**

- (d) (i) A food manufacturer wants to introduce a new fish product for children.

The product must:

- appeal to children
- include a casing
- use a named fish
- include a vegetable

Using notes and/or sketches show **one** idea for this product.

Do not draw the packaging.

(ii) State **one** method of cooking the new fish product.

..... [1]

(iii) Explain how the fish product you have designed should be stored at home.

.....
.....
..... [2]

(e) Fresh fish is a high risk food.

State **four** food hygiene rules when preparing and cooking high risk foods.

1

.....

2

.....

3

.....

4

.....

[4]

Total [15]



- You will get marks for the quality of written communication in your answer.

[6]

- (b) Food producers have to think about packaging for their products.

Fig. 3 shows apples packed using cardboard and a clear potato starch film.

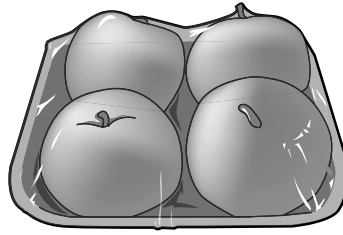


Fig. 3

- (i) Give **two** advantages of using cardboard as a packaging material.

1

.....

2

.....

[2]

- (ii) Give **two** advantages of using a potato starch film as a packaging material.

1

.....

2

.....

[2]

- (c) State **one** method manufacturers use to show how to dispose of packaging.

..... [1]

- (d) Date marking is used on the packaging of food products.
Explain what is meant by a 'use by' date and a 'best before' date.

Use by date

.....

.....

.....

Best before date

.....

.....

.....

[4]

Total [15]

11
BLANK PAGE

Question 18 begins on page 12

PLEASE DO NOT WRITE ON THIS PAGE

18 Fig. 4 shows the ingredients in a luxury cottage pie.

Meat Sauce	Mashed Potato	Crunchy Topping
Irish beef onion beef stock red wine carrot celery flour tomato puree Worcester sauce beef dripping cornflour pepper	Jersey potatoes double cream New Zealand butter salt pepper	Canadian cheddar cheese white bread

Fig. 4

(a) State **four** ways of reducing the fat content of the cottage pie.

- 1
 -
 - 2
 -
 - 3
 -
 - 4
 -
- [4]

(b) Give **two** reasons why we should eat less fat.

- 1
 -
 - 2
 -
- [2]

- (c) The manufacturer wants to reduce the carbon footprint of the cottage pie.
Give **two** ways of reducing the carbon footprint of the ingredients.

1

.....

2

.....

[2]

- (d) State **three** ways the cottage pie could be adapted for vegetarians.

1

.....

2

.....

3

.....

[3]

- (e) Explain **two** reasons why the manufacturer needs to think about how much energy is used to produce the cottage pie.

1

.....

.....

.....

2

.....

.....

.....

[4]

Total [15]

END OF QUESTION PAPER

[illegible]



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