

GCSE (9-1)

Examiners' report

FOOD PREPARATION AND NUTRITION

J309

For first teaching in 2016

J309/01 Summer 2022 series

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Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. A selection of candidate answers is also provided. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from OCR.

Advance Information for Summer 2022 assessments

To support student revision, advance information was published about the focus of exams for Summer 2022 assessments. Advance information was available for most GCSE, AS and A Level subjects, Core Maths, FSMQ, and Cambridge Nationals Information Technologies. You can find more information on our [website](#).

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Paper 1 series overview

The majority of the questions on the paper were attempted by all candidates and some candidates demonstrated a good knowledge and understanding of the topics covered. There was no evidence of any issues with time with the vast majority of candidates answering every question.


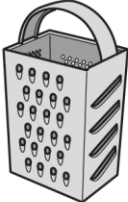
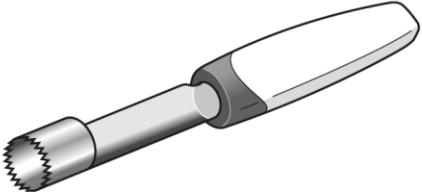
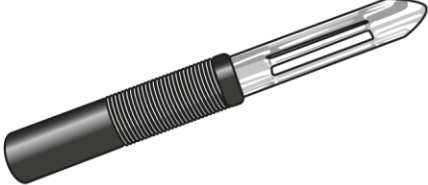
The paper appeared to be accessible to candidates of all abilities, with a wide range of marks evident. To perform well on the paper candidates needed to have covered in detail all the topics provided on the advance information which was issued to support candidates with revision for the examination.

Candidates who did well on this paper generally did the following:	Candidates who did less well on this paper generally did the following:
<ul style="list-style-type: none"> • read the questions carefully and answered the question that had been asked • demonstrated detailed knowledge of food science and nutrients • produced well developed answers to the extended response questions. 	<ul style="list-style-type: none"> • did not read the questions carefully or did not fully understand what was being asked • lacked subject knowledge or had difficulty in explaining themselves clearly.

Question 1 (a)

1 (a) Different equipment is used when preparing fruit and vegetables.

Complete the table below with the name of each piece of equipment.

Equipment	Name of equipment
	
	
	
	

[4]

This question was well answered apart from 'corer'. Equipment was correctly identified by most candidates. A small number of candidates described how each piece of equipment could be used rather than naming the equipment.

Question 1 (b)


(b) State **three** ways fresh fruit can be processed to increase shelf life.

- 1
- 2
- 3

[3]

Some candidates had excellent knowledge of a variety of processing techniques. However, others had a poor understanding of processing techniques and discussed how fruit should be stored or prepared.

Assessment for learning

 Candidates should be taught about the range of industrial and domestic food processing and preservation methods outlined in the specification.

Question 1 (c) (i)

(c) (i) Name **one** hard fruit.

..... [1]

This question was well answered with apples being the most common answer.

Question 1 (c) (ii)

(ii) Name **one** soft fruit.

..... [1]

This question was not well answered. Banana was a common response.

Question 1 (c) (iii)

(iii) Name **one** citrus fruit.

..... [1]

This question was well answered with oranges being the most common answer.

Question 1 (d)

(d) Knife skills are required for vegetable preparation.

Describe how to chop an onion.

.....

.....

.....

.....

.....

.....

..... [4]

This question was well answered, clear and detailed descriptions were given. Many candidates had a good knowledge of bridge hold and claw grip.

Question 2 (a)*

2 (a)* Explain why manufacturers use different types of additives in food production.

.....

.....

.....

.....

.....

.....

.....

..... [8]

Most candidates were able to identify additives being used to add colour, flavour and increase shelf life, however, many responses lacked depth to demonstrate clear understanding of their use. Exemplar 1 is a good example of this. This is a 3 mark response.

Exemplar 1

Manufacturers use different types of additives in food to increase shelf life, add more flavour, smell and to make the food more appealing. These are things buyers look for before purchasing or buying a food product in store. Therefore using additives increases the number of sales.

Question 2 (b)

(b) Explain the term **food security**.

.....

.....

..... [2]

Candidates with clear knowledge were able to concisely explain the term and gain full marks.

Exemplar 2

Food security is how safe they food is
 and how much research has went into it
 making sure there is no unwanted reactions with this food [2]

Exemplar 2: Misconception



The exemplar gained no marks. Candidates misunderstood the question and talked incorrectly about a range of topics including packaging, food free of bacteria, how safe food is, allergies, research, and GM food.

Question 2 (c) (i)

(c) (i) State **two** advantages of genetically modified (GM) foods.

1

2 [2]

Candidate responses to this question showed that the advantages of genetically modified (GM) foods had been a topic which had been covered extensively and candidates responded well to the question.

Question 2 (c) (ii)

(ii) State **one disadvantage** of genetically modified (GM) foods.

..... [1]

Candidates responded less well to this part of the question and demonstrated a far better knowledge of the advantages. When answered correctly long term safety unknown and unknown side effects were the most common answers.

Question 2 (d)

(d) Describe **two** ways consumers can reduce the carbon footprint of the food they choose to eat.

1

.....

.....

2

.....

.....

[4]

Many candidates gave two good examples. Where marks were lost it was because the description was repeated.

Question 3 (a) (i)

3 (a) Anaemia is a health condition that can be diet related.

(i) Identify the mineral that would be lacking in the diet to cause this condition.

..... [1]

Many candidates correctly answered this question, this topic has clearly been well taught in schools.

Question 3 (a) (ii)

(ii) Identify **two** foods that can help prevent anaemia.

1

2

[2]

Marks were often not gained as candidates omitted the word **oily** when stating fish as a response and **red** when stating meat as a response.

Question 3 (a) (iii)

(iii) Identify **one** group of people who are most at risk of developing anaemia.

..... [1]

A range of correct responses were seen. Where candidates did not gain the mark they often stated women or girls.

Assessment for learning



Candidates must state Teenage girls/menstruating women or pregnant women to gain the mark. Vegetarians, vegans and elderly people would also gain the mark.

Question 3 (a) (iv)

(iv) State **one** symptom of anaemia.

..... [1]

Many candidates were able to state one symptom and a range of responses were given.

Question 3 (b)

(b) State **four** ways to reduce salt intake in the diet.

- 1
- 2
- 3
- 4

[4]

Very few candidates were able to state four different ways to reduce salt intake in the diet. Some responses lacked clarity or were repeats.

Exemplar 3

- 1 Try to not have salt at all.
- 2 Track the amount of salt you're having.
- 3 Dont buy as much salty foods .
- 4 Homake your food.

The exemplar gained no marks and is an example of a response which lacks clarity. Candidates need to make it very clear how salt intake can be reduced in the diet. In point one they would need to add 'by not adding salt to food at the table'. In point two they would need to say 'eat no more than 6g or 1 teaspoon each day'. In point three they need to name the salty food, e.g. ready meals and say eat less of them, In point four they would need to make it clear that the salt content in the homemade food can be controlled or reduced.

Question 4 (a)

4 (a) Identify **two** foods which are often protected using controlled atmosphere packaging (CAP).

1

2

[2]

Many candidates were able to identify two different foods with a range of responses given.

Question 4 (b)

(b) Describe how food should be stored in a refrigerator.

.....
.....
.....
.....
.....
.....
..... [4]

A significant number of candidates knew the correct storage temperatures, how the food should be covered and the need to allow food to cool before being placed in the fridge. However, few referenced the need for raw meats/food being stored on the bottom shelf or the need for it to be separate from cooked food. Many responses were too vague to be awarded marks.

Question 5 (a)

5 (a) State **two** conditions required for yeast to grow.

1

2

[2]

Many candidates demonstrated a good knowledge of conditions required for yeast to grow, again this is a topic which has clearly been well taught in schools.

Question 5 (b)

(b) Identify **one** sign of food spoilage.

..... [1]

Many candidates could identify one sign of food spoilage. Bad smell, mould and discoloration were the most popular responses.

Question 5 (c)

(c) Explain **two** ways food poisoning can be prevented when preparing food.

1

.....

.....

2

.....

.....

[4]

Many responses lacked the detail required to show clear understanding. Candidates suggested use of different coloured chopping boards but did not explain 'raw' meat for red board. Washing hands was often stated but no explanation given. To gain full marks two ways needed to be clearly explained for example 'use different coloured chopping boards for raw and cooked food to prevent cross contamination' and 'wash hands before and during food preparation to prevent bacteria from the hands being passed onto food'.

Misconception



Some candidates did not read the question correctly and explained ways to prevent food poisoning when storing/cooking/serving food, rather than preparing food.

Question 6 (a) (i) – (iv)

6 To make successful choux pastry the recipe instructions should be followed carefully.

(a) Identify **one** reason for each of the following instructions.

(i) Measure the ingredients accurately.

..... [1]

(ii) Sieve the flour.

..... [1]

(iii) Allow the mixture to cool before adding the eggs.

..... [1]

(iv) Bake in a hot oven.

..... [1]

For the candidates to gain full marks for all parts of 6 (a) they needed to clearly identify the reason for the instruction. Candidates seemed more able to do this for 6 (a) (ii) and 6 (a) (iii). When candidates did not achieve the mark for 6 (a) (i) and 6 (a) (iv) they tended to use the question in their response 'so there is the correct amount of ingredients' or 'so the oven is hot'.

Question 6 (b)

(b) Name the raising agent used in choux pastry.

..... [1]

The vast majority of candidates answered this question, however, a range of correct and incorrect raising agents were named such as yeast and self raising flour

Question 6 (c)

(c) State **two** qualities of successful choux pastry.

1

2

[2]

Candidates often did not gain the two marks as they gave responses which lacked detail such as crisp or soft. The question asked for two qualities so the candidates must make it clear that the outside should be crisp and the inside soft.

Question 7*

7* Discuss the importance of the following commodity groups when planning a healthy diet:

- milk
- meat
- bread.

.....

.....

.....

.....

.....

.....

.....

..... [12]

A range of responses were given. Some candidates addressed healthy eating in general. Many responses were short in length and often limited to explaining the value of calcium in milk, protein and iron in meat and carbohydrate in bread without looking at the broader nutritional value, varieties or uses of the three groups when planning a healthy diet. Candidates need a greater knowledge of the different nutrients found in different foods and why these nutrients are important in the diet.

Question 8 (a) and (b)

8 (a) Explain scientifically how a white sauce thickens when heated.

.....

.....

.....

.....

.....

.....

..... [4]

(b) Explain scientifically how mayonnaise is made.

.....

.....

.....

.....

.....

.....

..... [4]

A range of responses were given to these two questions, some candidates gave excellent detailed responses explaining the scientific processes. Many candidates correctly identified gelatinisation and forming an emulsion, however, many responses were incorrect and showed a lack of knowledge. Candidates found this question challenging to answer.

Assessment for learning



Candidates should be taught the working characteristics and the functional and chemical properties of ingredient groups.

Question 8 (c)

(c) Describe how boiling can affect the consistency and taste of a reduction sauce.

.....

.....

..... [2]

Many candidates were able to describe the changes asked for in the question.

Question 9 (a)

9 (a) Describe the difference between a vegan diet and a lacto-ovo vegetarian diet.

.....

.....

.....

..... [2]

Many candidates could describe a vegan diet but very few understood the term lacto-ovo vegetarian sufficiently enough to be able to describe the differences.

Misconception



Some candidates described the difference between a vegan and a person who is lactose intolerant.

Some candidates did not describe the difference but stated how the diet of both was the same, e.g. do not eat meat/fish.

Question 9 (b)

(b) Identify **two** dishes suitable for a lacto-ovo vegetarian to eat.

1

2

[2]

A wide variety of suitable dishes were suggested by candidates, where candidates were not given credit for an answer was often because they suggested a single ingredient rather than a dish.

Question 9 (c)*

(c)* Discuss the factors that influence an individual's energy requirements.

.....

.....

.....

.....

..... [6]

Many candidates could name some of the factors but very few could discuss these in detail. Some candidates did not answer the question which was asked and discussed energy balance, weight loss, weight gain and foods that are high in energy. A detailed response should include some understanding of a range of factors that influence an individual's energy requirements such as gender, life stage, pregnancy, lactation, size, lifestyle and health.

Question 10

10 Complete the table below with **one** function and **one** good food source for each named micronutrient.

Micronutrient	Function	Good food source
Folic acid/folate (vitamin B9)		
Sodium		
Fluoride		
Iodine		

[8]

Many candidates appeared to lack the knowledge to be able to answer this question. Candidates found this question very challenging to answer well. Candidates need a detailed knowledge and understanding of the types, functions and sources of all the vitamins and minerals listed in the specification.

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