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# **GCSE EXAMINERS' REPORTS**

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**GCSE  
FOOD AND NUTRITION  
SUMMER 2023**

Grade boundary information for this subject is available on the WJEC public website at:  
<https://www.wjecservices.co.uk/MarkToUMS/default.aspx?!=en>

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### **Annual Statistical Report**

The annual Statistical Report (issued in the second half of the Autumn Term) gives overall outcomes of all examinations administered by WJEC.

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# FOOD AND NUTRITION

## GCSE

Summer 2023

### PRINCIPLES OF FOOD AND NUTRITION

#### General Comments

It was pleasing to see that most candidates attempted to answer all the questions on this year's paper and that the majority of centres had taken the opportunity to make good use of the Advanced Information.

We saw some very good responses across all the paper, and it was obvious that a high proportion of learners could apply the knowledge they had learnt in class via theoretical or practical sessions.

However, some candidates would benefit from reading questions more carefully and answering with information specific to what is being asked – having an awareness of command verbs would support this. Many would also benefit from learning the definitions and meanings of subject specific terminology in order to be able to apply this to answering questions such as 1c (i), 4 b (i) and (ii).

The extended response questions were attempted well by many candidates, and many scored highly. Whilst other responses spanned the whole mark range and varied significantly in terms of length and level of knowledge shown. Some candidates would benefit from making a simple plan prior to starting extended response questions in order to avoid repeating information and including information that is not relevant.

#### Comments on individual questions/sections

##### Section A

This section was well received, and most candidates attempted all the questions and accessed some / high proportion of available marks.

- Q.1** (a) This question was successfully answered, with most learners correctly stating the function of each ingredient used in bread making.
- (b) Many candidates demonstrated clear knowledge and were able to give three conditions that are required to activate the yeast in breadmaking. Some candidates referred incorrectly to warmth and liquid i.e., heat and damp.
- (c) (i) some students did not answer this question clearly which impacted the marks awarded. Learners were not always able to give a scientific explanation for the reason why the dough is kneaded. Only a few explained how gluten is stretched/developed with some learners stating yeast distribution and activation. More able candidates included fermentation/carbon dioxide in their answers.

- (ii) candidates had a better scientific understanding of the process of proving with most learners showing understanding that time is needed to activate the yeast.
- (d) This question was answered well with most of the learners being able to identify the benefits of bread within the diet.

## Section B

- Q.2**
- (a) Most candidates were able to complete the sentences and correctly identified the given nutrients.
  - (b) Many candidates were not sure what the recommended daily intake of salt was.
  - (c) Most candidates were able to access marks for this question with suitable suggestions on how an adult can reduce salt in their diet. In some instances, learners repeated answers, which limited marks awarded.
  - (d) Candidates' knowledge and understanding varied with the ways in which salt effected the diet. There was often a misconception with a correlation to cholesterol. Most learners understood the link of too much salt with high blood pressure/stroke/cardiovascular problems.
- Q.3**
- (a) This question was successfully answered by most learners. In a few instances the candidates did not read the information accurately i.e., stating grapefruit instead of fresh grapefruit.
  - (b) Learners' responses were of varying degrees in accuracy for this question. High quality responses were able to correctly state changes in colour and texture of strawberries, some learners referenced limited vitamin loss when this was already stated in the question.
  - (c) This was an accessible question that was successfully answered, allowing candidates to demonstrate clear knowledge and understanding. Candidates were able to discuss a few ways how families could increase their intake of fruit and vegetables. However, answers mainly related to meal suggestions. Higher ability learners were able to discuss other ways in which it could be carried out, such as taking advantage of prepared fruit and vegetables available now in many food outlets and using allotments to "grow their own".
- Q.4**
- (a) Many candidates were able to demonstrate good knowledge and understanding of the importance of eating breakfast. Most learners were able to clearly identify reasons as to why it is important - with common responses including, aiding concentration and preventing snacking through the day.
  - (b) (i) (ii) This was a more challenging question for learners, with mixed responses being given across the cohort. Candidates tended to struggle when responding, demonstrating a slightly vague understanding of the term and the reason why foods are fortified.

- (iii) Most candidates were able to state appropriate changes Morgan could make to meet dietary guidelines. However, as this was an explain question learners needed to give the reason for the adaptation to be awarded the full marks. Some candidates did not read the question correctly and did not make explicit reference to which foods were being changed. This meant they were unable to access many marks as they only stated 'eat more fruit /cut down on fizzy drinks.
- Q.5** (a) A very well answered question, responses showed that candidates could demonstrate clear knowledge and understanding.
- (b) Some candidates found this difficult to answer however, most identified that energy balance is needed for our bodies to maintain a healthy weight.
- (c) This question was well attempted with candidates demonstrating good knowledge on the factors that determine how much energy a person needs.
- Q.6** (a) This was a more challenging question for candidates to answer. Only a few learners could outline the difference between chemical and physical contamination. Many learners had a better understanding of chemical than physical.
- (b) A very well answered question, allowing candidates to demonstrate clear knowledge of high-risk foods and able to access marks for this question.
- (c) It was pleasing to see the candidates demonstrating a very good knowledge and understanding of food hygiene practices that must be followed when handling raw and cooked food in their responses to this question. Higher ability learners were able to name colour coded chopping boards, key temperatures such as the danger zone and named bacteria.
- Q.7** (a) A well answered question with many candidates able to gain 3 marks with a good range of responses being seen across the cohort.
- (b) Many candidates demonstrated clear knowledge and were able to give advantages and disadvantages of the named packaging material.
- Q.8** A very well attempted question with many candidates offering well-structured responses that were able to analyse the impact of packaging on the environment. Strong responses included very good detail on how both the industry and the consumer can reduce the amount of packaging used and clearly understood the impact with popular answers discussing the harm to wildlife and ugly land fill sites. Many candidates were able to discuss single use packaging and suggested using brown paper bags, refillable containers and compostable bags. The high sugar and even linked with the complex and simple carbohydrate intake. Many candidates referred to overpackaging/ unnecessary packaging of goods. In some instances, candidates had limited access to higher mark bands as their responses were sometimes repetitive.

## Summary of key points

- Many candidates had been well prepared for the examination; however, some would benefit from more in-depth understanding of the functions of ingredients and scientific processes used in the making of food.
- Literacy is still cause for concern where on times responses are difficult to interpret due to the quality of handwriting. WJEC offer centres the opportunity to complete the examination using online assessment. This could be a consideration for some candidate as it could strengthen the quality of responses, across all ability levels.
- Reading questions is still a weakness for many candidates. Misunderstanding and choosing the wrong focus is often the reason why candidates are not able to access higher marks. Centres are therefore advised to encourage students to read questions carefully.
- Future candidates would benefit from more examination technique practice and guidance on interpretation of command words used in questions. There are past papers, question bank and OER`s available to support examination revision.

## FOOD AND NUTRITION

### GCSE

Summer 2023

## FOOD AND NUTRITION IN ACTION

### General Comments

This year marked the return of NEA 1, the first time it has been submitted for moderation since 2019. NEA 1 is generally considered more challenging to mark, and as moderators, we often encounter issues with it. However, we were pleasantly surprised this year as there were fewer problems with the marking than expected. This improvement could be attributed to the online and face-to-face CPD sessions provided over the past year. Overall, the marking of both assessments was accurate, but I will address any issues in the following comments.

This year, centres were required to upload work directly onto IAMIS, and the option to send hard copies has been completely removed for future series. Accessing the uploaded work was generally easy, although some of it was quite challenging. To facilitate the moderation process, it is recommended that NEA 1 and NEA 2 be uploaded as separate documents, with the FN coversheets and NEA 2 practical marksheet included in each document. Additionally, photographic evidence of the candidates' practical outcomes can also be included in each NEA document. Some centres uploaded numerous documents, which made moderating the work extremely difficult and time-consuming. In the future, it is hoped that teachers will become more familiar with saving work as PDF documents and uploading them as separate NEAs.

With the requirement of submitting work online and not having to rely on postage services, adhering to the 5th May submission deadline should no longer be an issue in the future. The majority of centres were able to meet the deadline this year.

Annotation on the FN coversheets greatly aids the moderation process and is a valuable resource for moderators. I would like to thank the teachers who provided annotation. However, it is worth mentioning that a number of centres did not provide any commentary. While providing annotation is only a recommendation, I strongly encourage centres to provide it, as it helps moderators understand the reasons behind the awarded marks. The FN1 and FN2 coversheets need to be authenticated by both the candidates and the teacher, as per JCQ requirements. Unfortunately, some centres did not have the required signatures, resulting in a delay in the moderation process. To avoid such hindrances, electronic signatures will suffice for both candidates and teachers since the NEAs are now electronic documents.

It was satisfying to observe that marking was generally accurate across centres in Wales this year. In cases where marking was problematic, the moderator's report will have highlighted the issues to the centres. Conversely, if marking was fair and accurate, the moderator's report would have been briefer compared to previous years.

## NEA 1

### Section A

The majority of candidates conducted detailed research on the topic. While many candidates provided thorough research, some should consider summarising their findings to stay within the 2000-2500 word limit. After conducting thorough research, candidates should be able to explain why they have chosen their experimental ingredients.

The Roux task was well-researched, but there were missed opportunities. Although many included the gelatinisation of starch in their work, few discussed the Maillard reaction, which could have been included in the research.

Regarding the Choux task, candidates explored the use of steam as a raising agent and other types of raising agents. However, only a few examined the role of gluten in cooking choux pastry and the coagulation of the mixture in the oven. Researching more scientific aspects of both tasks would have deepened candidates' understanding of the principles behind a roux sauce and choux pastry, benefiting Sections B and C as well.

Well-structured plans were included, but some candidates failed to justify their choice of variables. The research candidates conduct should help support their choice of variables. The majority of the work included predictions of varying levels of detail. Predictions need not be lengthy, but candidates should refer back to their research to justify their hypotheses.

### Section B

The level of detail in this section varied among candidates. Some conducted a range of experiments, but there was a lack of photographic evidence with commentary, or the results were not tested using different formats. While some excellent examples of work were seen, there were instances where marks were generously awarded based on insufficient evidence. For the Roux task, experimental work could have involved using different ingredients, such as varying the flour, fat, and liquid. Some candidates also experimented with different ratios to make the sauce. Most testing involved using a viscosity chart to observe differences between sauces, although a few used Munsell colour charts to assess colour variations. While some evidence of star profiles and peer assessment was present, more is needed to justify awarding marks from the top band in this section.

Regarding the Choux task, candidates also explored using different ingredients and experimenting with ingredient ratios. Some candidates investigated alternative raising agents to achieve a rise in the pastry. When analysing results, comparing pastry colours and measuring the amount of rise could have been explored further in more of the work seen.

For Section B, candidates are expected to include a range of annotated photographs in their work. Unfortunately, there was a lack of diverse photographic evidence in many submissions this year. In the Roux task, photographs could have depicted different roux stages, the mixture after liquid addition, gelatinisation, and viscosity chart observations. Regrettably, many candidates only included photographs of the sauce on the viscosity chart. This limited range hindered candidates from discussing results at different stages of the practical session. Similarly, in the Choux task, candidates often omitted photos of different stages of the process and failed to measure the heights of the choux pastry to compare rise variations. While some excellent samples included annotated photographs of different stages and explanations of findings, it is hoped that future candidates will include more photographic evidence. Encouraging candidates to take plenty of photos throughout their practical sessions will enhance their work.

Candidates are expected to use a variety of formats and results to present their findings. Advising candidates to use peer assessment and sensory preference testing will not only diversify their results presentation but also provide more opportunities for analysis.

## **Section C**

This section is often challenging for candidates in this assessment. While many can describe their practical experiments, justifying marks from higher bands requires drawing conclusions from the data and explaining why the results occurred. These explanations should link back to the candidate's research and specifically address the scientific principles of the task, which is the most challenging aspect. Candidates are also required to evaluate their hypotheses and confirm whether their predictions were correct, providing explanations for their correctness or lack thereof. In some instances, candidates were awarded high marks for this section without discussing the scientific aspects of the task or reviewing their hypotheses.

For the Roux task, candidates could have discussed several scientific principles that may have influenced the outcome. Differences in starch content among different flours may have affected gelatinisation and viscosity. The water content in fats may have influenced viscosity as well. The cooking process also involves dextrinisation, which could impact the sauce's colour based on the roux's cooking duration. Adjusting the fat-to-flour ratio during the practical experiment would have affected the outcome and provided an opportunity for discussion.

Regarding the Choux task, candidates had numerous opportunities to discuss the scientific principles behind the cooking process. The water-to-flour ratio would have influenced the choux pastry through starch gelatinisation during cooking. The water quantity would have affected steam production during baking. Coagulation of proteins in the eggs and the Maillard reaction were relevant points of discussion. Additionally, different flours' gluten content could have affected elasticity and pastry rise during cooking.

Given the time constraints of this assessment (10 hours as recommended by the WJEC), Section C may also offer an opportunity for candidates to discuss further experimental work that could be conducted in the future.

## **NEA 2**

### **Section A**

It was pleasing to see more evidence of primary research in candidates' work this year. Some candidates included valuable pieces of primary research such as takeaway analysis, product analysis, questionnaires, and interviews. There was also less reliance on internet research compared to previous years. However, the value of mood boards as a method of research is questionable, particularly if they haven't been analysed to discuss their relevance. While a range of practical trials were observed, candidates must remember to include a picture of each trial dish made. Evaluations covering nutrition, skills, cooking methods, and sensory qualities were seen in most of the moderated work. However, some candidates still include recipes, methods, and costings of each practical trial dish, which are not creditworthy and should be discouraged. Overall, this section was accurately marked in the majority of the moderated work.

## **Section B(i)**

Justification of dish choices was seen in many candidates' work this year, but often these were overmarked. Candidates still struggle to access the full six marks available as the specification points are not sufficiently covered. Candidates should be encouraged to provide detailed coverage of each of the four bullet points mentioned in the assessment criteria for each dish to maximise their chances of achieving the full six marks. It is worth noting that selection and rejection grids are not required and candidates should not be encouraged to complete them as they are not creditworthy.

## **Section B(ii)**

Orders of work have shown significant improvement in recent years, but there is still room for improvement. Three clear sections—mise en place, cooking, and serving—are more evident in candidates' work, but the level of detail in each section could be enhanced. The mise en place section, in particular, requires improvement. Often, many mise en place sections only include basic tasks such as washing hands and putting on aprons, without much else. The mise en place section should encompass all preparatory tasks completed before cooking the dishes, such as preparing ingredients, equipment, making doughs (pasta/bread/pastry), or any other suitable tasks. Simply allocating five minutes in the mise en place section for basic preparation is insufficient. The cooking section generally provided good detail, and dovetailing is more evident, although some candidates still struggle with it. To ensure candidates are confident and proficient in dovetailing, it is recommended to provide practical and written dovetailing activities throughout Year 10 and Year 11 prior to starting NEA 2. The serving section has also shown improvement in the level of detail included. Notably, some pieces of work included written points on serving and presenting dishes, along with visual images depicting how the dishes should look. This visual prompt may benefit many candidates, helping them present their dishes more attractively rather than relying solely on written bullet points.

## **Section C**

This year, there was a comprehensive range of dishes documented in the photographic evidence of candidates' work, and more teachers are using the NEA 2 practical marksheet to assess candidates' practical work. The practical marksheet facilitates fair and accurate marking of the practical session and allows moderators to understand how and why marks were awarded. However, some centres still generously mark the practical work, particularly in the skills and presentation section. To award marks from the higher bands in these sections, candidates must demonstrate a range of well-executed high-level skills and excellent presentation using various techniques and garnishes to include accompaniments where suitable. Due to the work being uploaded on IAMIS from now on, candidates should include images of their dishes within the main body of their work for easy reference by moderators.

## **Section D**

It was pleasing to see more candidates completing the evaluation section, and the use of sub-headings is becoming more prominent. Sub-headings encourage candidates to cover all the specification points, leading to higher marks. However, there are still centres whose candidates include costings and nutritional analyses in the evaluation sections—these are not required and are not creditworthy. The marking of this section was mostly accurate, and the evaluations covered all the necessary criteria.

## **To conclude**

Moderators' reports, available on the secure website, have changed this year to be more condensed. Reports will simply state whether the marking was fair and accurate or provide more detail if the marking was generous or harsh, aiming to help centres improve. The Principal Moderators' report will offer detailed commentary on areas of strength or weakness seen in the samples of work moderated across Wales.

Please remember that the NEA tasks change annually and differ from those in England (Eduqas). Additionally, there will be online and face-to-face CPD opportunities in the autumn to support teachers delivering this qualification.



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