



# Level 3 Examiners' Report

Food Science and Nutrition

Level 3

Summer 2024

## Introduction

Our Principal Examiners' report provides valuable feedback on the recent assessment series. It has been written by our Principal Examiners and Principal Moderators after the completion of marking and moderation, and details how candidates have performed in each unit.

This report opens with a summary of candidates' performance, including the assessment objectives/skills/topics/themes being tested, and highlights the characteristics of successful performance and where performance could be improved. It then looks in detail at each unit, pinpointing aspects that proved challenging to some candidates and suggesting some reasons as to why that might be.<sup>1</sup>

The information found in this report provides valuable insight for practitioners to support their teaching and learning activity. We would also encourage practitioners to share this document – in its entirety or in part – with their learners to help with exam preparation, to understand how to avoid pitfalls and to add to their revision toolbox.

## Further support

Document	Description	Link
Professional Learning / CPD	WJEC offers an extensive programme of online and face-to-face Professional Learning events. Access interactive feedback, review example candidate responses, gain practical ideas for the classroom and put questions to our dedicated team by registering for one of our events here.	<a href="https://www.wjec.co.uk/home/professional-learning/">https://www.wjec.co.uk/home/professional-learning/</a>
Past papers	Access the bank of past papers for this qualification, including the most recent assessments. Please note that we do not make past papers available on the public website until 12 months after the examination.	<a href="#">Portal by WJEC</a> or on the WJEC subject page
Grade boundary information	Grade boundaries are the minimum number of marks needed to achieve each grade. For unitised specifications grade boundaries are expressed on a Uniform Mark Scale (UMS). UMS grade boundaries remain the same every year as the range of UMS mark percentages allocated to a particular grade does not change. UMS grade boundaries are published at overall subject and unit level.  For linear specifications, a single grade is awarded for the subject, rather than for each unit that contributes towards the overall grade. Grade boundaries are published on results day.	For unitised specifications click here: <a href="#">Results, Grade Boundaries and PRS (wjec.co.uk)</a>

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<sup>1</sup> Please note that 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.

Exam Results Analysis	WJEC provides information to examination centres via the WJEC Portal. This is restricted to centre staff only. Access is granted to centre staff by the Examinations Officer at the centre.	<a href="#">Portal by WJEC</a>
Classroom Resources	Access our extensive range of FREE classroom resources, including blended learning materials, exam walk-throughs and knowledge organisers to support teaching and learning.	<a href="https://resources.wjec.co.uk/">https://resources.wjec.co.uk/</a>
Bank of Professional Learning materials	Access our bank of Professional Learning materials from previous events from our secure website and additional pre-recorded materials available in the public domain.	<a href="#">Portal by WJEC</a> or on the WJEC subject page.
Become an examiner with WJEC.	We are always looking to recruit new examiners or moderators. These opportunities can provide you with valuable insight into the assessment process, enhance your skill set, increase your understanding of your subject and inform your teaching.	<a href="#">Become an Examiner   WJEC</a>

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## **Executive Summary**

### **Unit 1 – External Assessment**

The examination paper was of a very similar standard to previous examination series and outcomes generally aligned.

Candidates generally displayed a good wide coverage of Unit 1 content. However, there were some obvious gaps in knowledge and often candidates showed knowledge but were unable to demonstrate understanding of that knowledge. Section A will always allocate a range of marks across a wide content range, some of these marks will be given for simple recall (knowledge) and some for understanding. Many candidates were unable to develop their responses beyond simple recall and either did not attempt to try to demonstrate understanding or made incorrect developments.

There was also evidence, throughout quite a few questions, of misconceptions and incorrect knowledge of key Food science and Nutrition terms.

Many candidates are missing out on further marks by giving simplistic and brief responses to questions allocated more than 1 mark. Focussing on the command verb will be key to understand the requirement of the question, and the number of lines allocated for the response is also a prompt to show where extended writing is required.

In higher tariff questions in Section B and Section C, candidates need to develop their answers and if required, give a balanced response. Too many candidates miss out on achieving the higher bands for extended writing responses giving superficial explanations and unsupported judgements.

For section C, candidates continue to offer application by simply using the name of the person, on which the case study is based. This is not application; candidates need to apply their understanding through embedding their response in the given context.

### **Unit 2 External**

The external assessment was of a very similar standard to previous examination series and outcomes generally aligned.

Candidates generally displayed a good wide coverage of Unit 2 content. However, there were some obvious gaps in knowledge and often candidates showed knowledge but were unable to demonstrate application of this knowledge to the food products and food preparation and serving conditions within the “live” scenario.

In order to access higher marks candidates must apply all statements to the set scenario it is not enough to provide unrelated information even if it does address the AC being assessed.

### **Unit 1, Unit 3 and Unit 4 Internal Assessments**

For Unit 1 and Unit 3 all three of the “live” model assessments were submitted and generally work was of an appropriate standard for the Level of entry. Less centres had produced their own briefs this year, but this is something that is acceptable as long as the tasks linked with each assessment does not change. Marks awarded for these units spanned the whole mark range and some very high standard work was seen.

Current issues selected for Unit 4 were mostly appropriate and again we saw some excellent work which demonstrated passion and interest in the topics selected.

Generally, the majority of candidates covered all LO's and AC's within their evidence, but where they didn't the use of headings taken direct from the assessment may support future learners to ensure completeness.

Mark bands align specifically to each assessment criteria hence missing evidence cannot be credited marks.

Marking should also align to the statements within the mark bands and a "best fit" approach is welcomed, but annotation is critical to support this.

Submission via the electronic platform was much more streamline this year - Thank you.

Areas for improvement	Classroom resources	Brief description of resource
Unit 1 external  UNDERPINNING KNOWLEDGE OF UNIT 1 CONTENT.	<a href="https://resources.wjec.co.uk/pages/resourcesingle.aspx?riid=3392">HTTPS://RESOURCES.WJEC.CO.UK/PAGES/RESOURCESINGLE.ASPX?RIID=3392</a>	Examination walk through.
Unit 1 and Unit 2  UNDERPINNING KNOWLEDGE.	<a href="#">WJEC Educational Resources Website</a>	knowledge organisers e.g. Effect of cooking on commodities. Applying nutrition principles.
Unit 1 command verbs.	<a href="http://www.wjec.co.uk">Portal (wjec.co.uk)</a>	
Unit 1 internal  Showcasing of appropriate L3 skills.          Appropriate coverage of AC's.	<a href="https://www.wjec.co.uk/umbraco/surface/blobstorage/download?nodeid=5441">HTTPS://WWW.WJEC.CO.UK/UMBRACO/SURFACE/BLOBSTORAGE/DOWNLOAD?NODEID=5441</a>  <a href="https://www.wjec.co.uk/umbraco/surface/blobstorage/download?nodeid=51264">HTTPS://WWW.WJEC.CO.UK/UMBRACO/SURFACE/BLOBSTORAGE/DOWNLOAD?NODEID=51264</a>  <a href="#">WJEC Educational Resources Website</a>  <a href="https://www.wjec.co.uk/media/tyqcczxz/l3-fsn-preparing-for-internal-assessments.ppsx">HTTPS://WWW.WJEC.CO.UK/MEDIA/TYQCCZXZ/L3-FSN-PREPARING-FOR-INTERNAL-ASSESSMENTS.PPSX</a>  <a href="http://www.wjec.co.uk">Portal (wjec.co.uk)</a>  <a href="#">(Unit 1, 3 and 4)</a>	Suggestions for L3 dishes.  Skills video.  Preparing learners for assessment.  Exemplars.
Unit 2 external	<a href="http://www.wjec.co.uk">Portal (wjec.co.uk)</a>	Past papers & Exemplars.

<p>Unit 3 internal</p> <p>Presenting findings from investigations.</p>	<p><a href="https://www.wjec.co.uk/umbraco/surface/blobstorage/download?nodeid=51264">HTTPS://WWW.WJEC.CO.UK/UMBRACO/SURFACE/BLOBSTORAGE/DOWNLOAD?NODEID=51264</a></p> <p><a href="https://www.wjec.co.uk/media/tyqcczxz/l3-fsn-preparing-for-internal-assessments.ppsx">HTTPS://WWW.WJEC.CO.UK/MEDIA/TYQCCZXZ/L3-FSN-PREPARING-FOR-INTERNAL-ASSESSMENTS.PPSX</a></p>	<p>Work smarter not harder.</p> <p>Preparing learners for assessments.</p>
<p>Unit 4 internal</p>	<p><a href="https://www.wjec.co.uk/media/tyqcczxz/l3-fsn-preparing-for-internal-assessments.ppsx">HTTPS://WWW.WJEC.CO.UK/MEDIA/TYQCCZXZ/L3-FSN-PREPARING-FOR-INTERNAL-ASSESSMENTS.PPSX</a></p>	<p>PowerPoint – Preparing for internal assessments.</p>

# FOOD SCIENCE AND NUTRITION

## Level 3

Summer 2024

### UNIT 1 MEETING NUTRITIONAL NEEDS OF SPECIFIC GROUPS

#### Overview of the Unit

The marks awarded covered the whole of the mark range.

It is important that all areas of the specification are covered in the guided learning hours, as all areas will be covered in one way or another on the examination paper.

Candidates would be advised to make good use of the reading time to read all questions thoroughly because some errors seen could be attributed to candidates' misreading questions and choosing the wrong focus for their responses.

Where candidates were familiar with the command words used in examination questions, responses seen were of an appropriate depth to both the command word and the mark allocation. Marks can only be awarded for explicit answers.

The quality of written communication (QWC) was assessed in all questions that asked candidates to 'describe', 'explain', 'discuss' 'evaluate' 'analyse' and 'justify'. Some candidates answered these questions by making statements which, in the main, were correct but could only be awarded the lower band marks due to a lack of explanation, discussion or assessment. To access the higher band marks the candidates must explain the statements made and give appropriate specific examples.

Candidates should be encouraged to make use of paragraphs when writing a detailed response but be discouraged from using a long introduction which is just repeating the question.

#### Comments on individual questions/sections

##### Section A

Q.1 (a) The full range of marks were awarded for responses to this question.

Candidates who were clearly familiar with the Food Safety Act were able to give a least one correct way in which it protects the consumer.

Some Candidates were seen to confuse the Food Safety Act with H.A.C.C.P.

(b) A range of dates were given for the year the Food Safety Act became law but only the correct answer 1990 was accepted.



(c) A few candidates did not attempt a response, those who did were either able to correctly name one other piece of food legislation or hazard a guess. The most popular correct responses seen being The Food Safety and Hygiene Regulations (2013), The General Food Law Regulations (2004), H.A.C.C.P or Natashas Law.

Q.2 Most candidates gained 2 marks naming **two** correct food allergens. The most popular responses being nuts, shellfish, eggs, wheat, other correct responses were accepted,

Where candidates named two examples of the same commodity, they were only awarded 1 mark.

Some candidates were seen to confuse allergens with intolerances.

A minority of candidates named conditions rather than allergens.

Q.3 The level of understanding of the term Malnutrition in responses to this question was varied. The full range of marks were allocated. Some excellent definitions were seen demonstrating knowledge of it being a long-term energy imbalance with the body not obtaining the correct nutrition whether that be excess, or deficiency supported with examples e.g. excess energy which can cause obesity.

More simplistic responses tended to concentrate just on a lack of nutrients.

Q.4 The majority of candidates were able to name **two** Micro-nutrients which may be lacking in a plant-based diet. The most popular being vitamin B12 and Vitamin A (retinol) with either just vitamin A or retinol being accepted. Similarly, where iron was named, as it was only one mark per response, just iron was accepted though some candidates were seen to qualify iron as being haem iron.

Those gaining one mark named one correct micro-nutrient.

A few candidates were confused between the term micro-nutrient and macro-nutrient naming macro nutrients as opposed to micro-nutrients for which no marks could be awarded.

A minority named food examples not micro-nutrients.

Q.5 The majority of candidates were able to outline the difference between fat soluble and water-soluble vitamins. To access full marks a detailed response with examples was required. Those who knew which vitamins were fat soluble and which were water soluble were able to name these correctly to support their response e.g. water-soluble Vitamins B & C being more volatile than fat soluble Vitamins ADEK.

Some candidates were seen to give food sources of fat soluble and water-soluble vitamins rather than outlining the difference.

Q.6 Candidates either had knowledge of folate or were unfamiliar with the term. No explanations were required as the command words were name/state.

(a) The most popular named good food source was green leafy vegetables spinach/kale. Other correct responses were credited.

(b) The best responses were given by Candidates who had a clear understanding of the role of folate in the body in connection with reduction of risk of neural tube defect such as spina bifida.

Where candidates had given an incorrect answer to part (a) of this question but were able to give a correct response to part (b) their response was credited accordingly.

Q.7 This question was not attempted by a few of the candidates.

The best responses were given by Candidates who were familiar with the term antioxidants and who had a clear understanding of the part they play in reducing the harmful effects of free radicals.

Simplistic responses just named the antioxidants Vitamin A (Beta-carotene) Vitamin C and Vitamin E.

To gain full marks responses needed to have made mention of free radicals in their description.

Q.8 Some excellent responses were seen where Candidates demonstrated in-depth knowledge of protein structure, with clear understanding why proteins were either high biological or low biological value in relation to essential (indispensable) amino acids. They supported their explanations with numbers of essential amino acids, why they are essential, named essential amino acids /food examples, complementary action.

Less detailed responses did not demonstrate the depth of understanding, tending to support their explanations just with food source examples.

There was some confusion between high amounts and low amounts of protein being the difference.

A few candidates gave an incorrect response related to the function of protein in the diet.

The full range of marks were awarded for this question.

## Section B

- Q.1 This question was attempted by nearly all candidates with many being able to access the middle/top mark bands. Where done well candidates gave detailed descriptions of ways in which the risk of cross contamination could be reduced, demonstrating a clear understanding of cross contamination being the transfer of bacteria from contaminated foods liquids and solid substances, surfaces, materials food handlers or animals to other foods using a “vehicle” e.g. hands, equipment etc.

Some responses which attracted lower marks, well focused on ways of reducing food contamination rather than cross contamination.

Where Candidates gave a simplistic response or only focused on one area, they were unable to gain more than three marks. Responses were marked holistically, marks were not allocated 3,3,3 but to be awarded marks in the higher two bands mention needed to be made to all three areas in the question.

Credit was not given for mentioning ensuring foods were cooked to the correct core temperature or hot holding foods at above 63c as these are not examples of cross contamination. Where candidates had gone onto qualify statements in relation to ensuring uncooked meat was not added to cooked food or ensuring that the food probe used to check core temperature was cleaned after each use then the cooking of food to the correct temperature could be credited.

- Q.2 A full spread of marks was awarded for this question.

Some excellent factually correct responses were seen with good application of scientific process/terminology. Covering the question in full, with detailed explanations of how the body obtains energy from all of the Macro nutrients, how it is released from food into the body, the role of B vitamins, energy measurement/capture/storage and the various forms in which it is used, nerve impulses, mechanical movement, to maintain body temperature, chemical and metabolic reactions.

At the other end of the spectrum some candidates just referred to food as a source of energy or just carbohydrates, focusing on simple and complex forms and its use in exercise.

This question highlighted the importance of Candidates being explicit in their response, making a point followed by an explanation and example (PEE). Applying their knowledge at an appropriate level is critical.

- Q.3 (a) Not all Candidates attempted a response to this part of the question, but they did go on to attempt part (b) with part (b) being attempted by most candidates.

Good responses seen were where candidates had knowledge of functions of sodium in the body like maintaining water balance, for muscle and nerve activity, regulating blood pressure.

- (b) The candidates' responses varied depending on their knowledge & understanding of ways to reduce sodium intake in the diet. A full spread of marks was awarded to this part of the question.

Some excellent top mark band responses were seen where Candidates suggested a varied range of valid ways in which sodium intake could be reduced. From reducing the number of ready meals, processed meats consumed, to not adding extra salt at the table, cooking from fresh and using herbs as flavouring, reading nutritional labels before purchasing, replacing snacks high in salt e.g. crisps with low salt varieties.

Where done, less well candidates just made one valid point then wrote everything they knew about sodium/salt.

The most simplistic of answers just talked about reducing foods high in sodium/salt from the diet which could not be credited unless supported with specific examples.

Some Candidates who misunderstood the question focused on the consequences of a diet high in sodium rather than making suggestions of how its intake could be reduced. Highlighting the importance of taking time to read the question as no marks could be awarded.

- Q.4 Where done well Candidates demonstrated a good understanding of the command word evaluate and were able to give a detailed balanced answer relating to both the positives and negatives as to whether following a weekly meal plan ensures a nutritionally balanced diet is maintained.

Many responses showed understanding that if the meal plan had not been put together by someone with good nutritional knowledge it would not be as beneficial as one which had. Also, that, without planning it is more difficult to monitor what is being eaten.

Positives evaluative comments referred to the use of the Eatwell guide recommendations, calorie / kilojoule intake, portion size, inclusion of key nutrients, planned snacks, being able to be more easily monitored, the likelihood of a decrease in consumption of take aways as ingredients for meals had already been purchased.

Negatives mentioned that unless meal plan was changed boredom may lead to deviation from the plan resulting in the purchase of a takeaway, the plan may contain ready meals or processed foods which would not contain the same range of nutrients as fresh foods along with being high in salt, fat, sugar.

## Section C

- Q.1 Candidates were familiar with the nutritional needs of a child. The full range of marks was awarded for responses to this question, at the lower end candidates were able to use Dylan`s profile to determine his most obvious current nutritional needs relating to his age, stage of development, activity level.

The emphasis in responses to this question needed to be on **analysis** of nutritional needs, both **current and future in relation to Dylan**. Where Candidates failed to respond to the command word, they were seen to just to write a list of points from the profile as opposed to analysing them.

A number of Candidates just focused on current needs, as a result they were unable to access the two higher mark bands.

At this level; as was evident in the responses awarded marks in the higher mark bands; it is expected that candidates would demonstrate application of detailed understanding of source; function; deficiency of macro and key micronutrients **making clear reference to examples in Dylan`s diet**; along with his specific age /activity levels/ dietary needs/life stage progression. The use of terms such as “unhealthy” or statements with no direct correlation or reference to examples given in Dylan`s profile/diet were still seen to being made.

The case study this year highlighted the importance of thinking about the age group of the person in the case study in relation to progression into the next life stage in this case childhood to adolescence. Though Candidates were credited for valid future comments into adulthood.

It is evident in candidate responses where they have been introduced to case studies during the delivery of the course; along with the technique of how to carry out an analysis of a specific case study through pre public examination practice. Some excellent high-level responses were seen.

- Q.2 Marks for this question covered the full mark range.

Where Candidate were clearly familiar with the importance of establishing good eating habits at an early age, they were able to relate it to Dylan and the impact it would have on his health and wellbeing in the short- and long-term future. They were able to give some excellent balanced responses referring to both positive and negative aspects of eating habits. Making assessments in relation to regular well-balanced meals, establishing social skills, positive relationships with food all of which would then be continued into later life.

The less detailed responses focused on just one or two of the most obvious benefits.

There is a clear distinction in what is being asked in question 1 from question 2. Most candidates did clearly indicate where their response to question 2 started along with drawing attention to if they had continued their response in a continuation booklet.

- Q.3 Most candidates were able to make some suggestions or present a suitable Saturday meal plan for Dylan. Fewer candidates were seen just to modify the weekday plan.

The quality of Saturday meals for Dylan covered the full mark range. Those being awarded marks in the top mark band clearly considered his age and therefore requirement for protein, calcium, vitamin D, antioxidants, increased activity levels on a Saturday, including dishes providing sources of complex carbohydrate for slow-release energy, appropriate snacks to keep up his energy levels and drinks to maintain his fluid intake. Demonstrating an understanding of points to consider when meal planning.

It is expected that candidates would give specific named examples for the commodities being suggested for example Whole milk (as it is recommended that up until the age of 5 children have whole milk), named berries e.g. strawberries, blueberries. Named vegetable accompaniments to cooked meals.

Good practice was observed where candidates clearly laid their choices out next to mealtimes as in the question or presented in table form. Assisting the marking process.

In a few cases no specific meal plan was drawn up just general statements making suggestions of possible alternatives. Marks can only be awarded for clear responses/specific examples.

- Q.4 Those candidates who had a good nutritional knowledge and understanding of why the dishes they had chosen would meet the dietary requirements of Dylan were seen to give excellent responses which justified in detail their chosen menu in relation to fitness for purpose. These high-level responses were well structured with points made clearly showing understanding of source; function of nutrients in relation to Dylan with named examples and evidenced in both ingredients and commodities contained in their menu.

At the lower end where candidates had just made minor adaptations to the example menu with which they had been presented justification as to how it met Dylan's specific dietary requirements was more limited.

Candidates need to be discouraged from just making generic statements about the function of nutrients; responses need to show clear application to the case study. There was evidence of candidates having a detailed understanding of the function and source of nutrients, but their responses lacked application in terms of justifying fitness for purpose of their chosen meal plan in relation to the dietary needs of Dylan.

Where Centres have encouraged candidates to answer question 3 & 4 together in table form whilst this makes responses clear to read; it is important to ensure that this does not restrict access to the top mark band which requires candidates to make an in-depth justification for their choices with sound reference to Dylan's specific nutritional & personal needs.

It would appear a small number of candidates had run out of time as they did not attempt this question.

## **General Comments**

Candidates would be advised to make it clear when they have continued their answer in a continuation booklet to ensure that when examination papers are scanned in preparation for marking the whole of the Candidate responses can easily be attributed to that Candidate. They should ensure they make clear the number of the question which is being continued and from which section.

Fewer candidates were seen to continue their answer in the space under the lines. Which was positive as when papers are scanned for marking work outside the allocated area could be overlooked.

It is important that candidates record the correct Centre number and their candidate number in the appropriate place on the front of their answer booklet.

# FOOD SCIENCE AND NUTRITION

## Level 3

### Summer 2024

#### UNIT 2 ENSURING FOOD IS SAFE TO EAT

##### Overview of the Unit

The purpose of this summative external Assessment Task is to enable Candidates to demonstrate the knowledge & understanding they have gained in relation to ensuring food is safe to eat, during their 90 guided learning hours.

The scenario on which the Assessment Task is based should always be the focus of the work which is completed. The focus for this summer being the foods being prepared and served to residents and guests attending the Nursing Homes Celebration Afternoon tea.

Candidates need to be aware that of the twelve Assessment Criteria for this unit, two are not assessed. These change each year. The Criteria which are being assessed are clearly outlined in the task. Some Candidates were seen to include evidence for AC1.1 and AC 2.4 which were not being assessed in this summer's scenario.

Candidates should complete their work within the 8 hours allotted to this task. The length of the work produced should be appropriate to this time allocation. In some cases, the volume of written work seen was excessive.

This summative assessment should be carried out in controlled conditions. Whilst Candidate may have access to their class notes, they should not have access to the internet. Candidates should avoid just presenting generic notes which show little or no application to the scenario. Once work has been started Candidates should not be given guidance on how to improve their work.

Some candidates were seen to include work which appeared too related to previous scenarios. Whilst it is anticipated that Candidates will have undertaken examination preparation, they should not have access to work for/ relating to any similar scenarios, once they begin the live assessment.

The standard of the work produced by candidates covered the whole mark range.

Some good merit/excellent distinction level work was seen where candidates had interpreted the requirements of the Nursing Home celebratory Afternoon tea well and were able to produce responses which remained focused on the scenario referencing specific examples; demonstrated their understanding of the situation enabling them to access the higher mark bands. Where candidates just presented generic notes, they were unable to access marks higher than band 1.

Most candidates had completed Unit 2 Assessment following the two distinct tasks.



**Task 1; Assess the potential food safety and hygiene issues which could have arisen from the nursing home putting on the event.**

**Task 2; Produce the Food Safety Risk Assessment (H.A.C.C.P) documentation which should have been in place for the cook and nursing home staff to follow during preparation, cooking and serving of the celebration afternoon tea.**

**Comments on individual questions/sections**

**Task 1: Assessment**

**LO1 understand how micro-organisms affect food safety.**

AC1.2, AC1.3 AC1.4

Work awarded marks in the top bands clearly demonstrated understanding of the command words with assessments and explanations given by the candidates in their responses in relation to conditions, environments, preservation techniques being directly applied to the ingredients/dishes on the menu/serving in the Nursing Homes Celebratory Afternoon tea scenario.

Those candidates who failed to address this in their work, providing more simplistic responses or just presenting generic information restricted their access to the full mark range.

**LO2 understand how food can cause ill health.**

AC2.1 AC2.2.

Those who gave a detailed response were able to explain the physiological basis of both food intolerances and food allergies. Going onto demonstrate knowledge of the foods which most commonly cause an intolerance / contain allergen as listed by the Food Standards Agency; apply this to the scenario with an analysis of the risks posed by named ingredients in dishes on the menu. Enabling access to the higher mark bands.

More simplistic responses presented generic information about food intolerances/food allergies making no link to ingredients found in dishes on the menu. restricting access to the higher mark bands.

AC2.3

Where candidates showed understanding and application of knowledge about the physiological basis of food poisoning, they were able to complete this Assessment Criteria to a high standard. Foods which present a high risk of food poisoning, and causative bacteria were identified with specific links to ingredients in dishes on the menu.

More simplistic responses presented generic information restricting access to the higher mark bands.

## **Task 2 Food Risk Assessment**

The blank Risk Assessment chart from Appendix B or a modified version had been used well by most Candidates to address Assessment Criteria for L03 providing clear structure to this section of work.

### **L03 understand how food safety is managed in different situations.**

AC3.1 AC3.2, AC3.3, AC3.4

It is evident that there is a good understanding of the basic principles of a H.A.C.C.P plan. showing the hazards, risks and control measures that apply to the preparation and serving of food when catering in relation to the purchase, delivery, storage, food preparation, cooking, reheating, cooling, hot holding, cold display, serving, disposal of waste.

However, when it came to the application of this to the given Scenario then knowledge and understanding was variable.

The risk assessments produced by Candidates covered the full mark range.

Some excellent plans were seen in which Candidates showed direct correlation to the initial purchase/preparation/cooking of food in the nursing home kitchen in the morning. Subsequent storage, that transport into the garden would not require a van as it could be carried or moved on a food trolley and serving in the open air/marquee on a hot summers' day in the afternoon. Demonstrating good understanding of the various risk which this scenario posed.

Where candidates were able to support this understanding of the H.A.C.C.P principles and include in their risk assessment specific named foods/ ingredients on the menu, including reference to specific temperature controls and timings for preparation, storage, cooking at the various stages; noting the age of the residents, risk posed by food allergens /intolerances as no dietary information had been collected for the guests they were able to access the higher mark bands.

Where Candidates submit generic H.A.C.C.P plans this limited their access to the higher Mark Bands.

Some candidates just focused on the potential risks caused by food allergens/ ingredients associated with intolerances this limited their access to the higher mark bands as the menu also contained a number of high-risk foods which if not handled correctly posed a potential risk to residents and guests. A H.A.C.C.P taking into consideration all possible risks needed to have been produced.

A number of candidates were seen to include information for areas which had no bearing to the Nursing home scenario.

An area for development would be completion of a detailed justification of the control measures to minimise food safety risks which had been identified.

### **General comment in regard to administration**

Evidence of the 8 hours should be logged on the timesheet with date and times that work took place, signed by both the supervisor and the candidate. This should be included with the Candidate work.

A Mark Sheet on which the Centre number and Candidate details have been filled in, to enable the marks awarded by the marker to be recorded, should be attached to each candidates work.

Candidate work should not be placed in plastic wallets as this makes the marking process more time consuming. All sheets should be secured but please can Centres refrain from sending work in A3 ring binders.

The Attendance register is an important document enabling markers to check Candidate absence. This should be included in the package of Candidate work sent for marking.

# FOOD SCIENCE AND NUTRITION

## Level 3

Summer 2024

### UNIT 1 MEETING NUTRITIONAL NEEDS OF SPECIFIC GROUPS

#### Overview of the Unit

The Aim of this Internal Assessment using a Model Assignment is to provide candidates the opportunity to demonstrate their understanding of the nutritional needs of specific target groups, plan and cook complex dishes to meet their nutritional needs.

LO1 understand the importance of food safety, LO2 understand properties of nutrients, LO3 understand the relationship between nutrients and the human body, LO4 be able to plan nutritional requirements, LO5 be able to plan production of complex dishes, LO6 be able to cook complex dishes, are all assessed in this internal assessment.

The emphasis should be on applying the Assessment Criteria directly to the Model Assignment. The best outcomes seen were where Candidates had clearly outlined a profile for a member of the target group to be their focus. This enabled them to go on and demonstrate clear application of Assessment Criteria to meeting the needs of their specific target group within the Model Assignment.

All current Model Assignments were seen to have been chosen by candidates this year. The most popular choice being option C, A local catering college opens its restaurant to the general public in the evening in order for its trainee chefs to gain firsthand experience.

A few Centres had submitted work relating to a brief which they had written themselves. The process for this is outlined in the Specification. Please ensure that the correct procedures are adhered to before presenting Candidates with an alternative to the live Model Assignments.

Centres need to be mindful of the time allocation for this unit of work. It is not the intention that it is an extended piece of controlled assessment as it has an allocated time control of 9 hrs. 30 mins. In some cases, the volume of written work seen was excessive.

There is no requirement for a research plan or research into analysis of local restaurant menus, or a detailed reason for choice relating to the aesthetics of chosen menu. Some candidates were seen to write in detail about the skills they would be demonstrating, this is not necessary as the assessor should comment on theses on the Mark Record sheet, and they should be evident in candidates' production plans. Costing is not mentioned on the Performance Band Criteria, so candidates do not have to include this.

## **Comments on individual questions/sections**

### **LO1 - Understanding the importance of food safety.**

AC 1.1; AC1.2; AC1.3; AC1.4

In some of the work seen these criteria were still being seen addressed too briefly to be awarded marks in Band 3. The emphasis should be on explanation/analysis rather than just a list of responsibilities/methods. It is vital that Candidates are familiar with the command words at the start of each Assessment Criteria as just including generic notes/ listing provides insufficient evidence to be awarded marks in the higher bands.

Most candidates included coverage of LO1 in a written section following on from their interpretation of task. In some cases, this was supported with further evidence in production plans/ records of responses made during an interview.

Some Candidates tended to only discuss their own actions in relation to responsibilities for food safety. To access the higher mark bands the role of a range of individuals appropriate to the situation in the Model Assignment should be discussed.

There was still evidence of confusion in the distinction between food safety and personal accident/accident prevention; with candidates being credited marks for control of personal injury/ accident prevention as opposed to food safety risks.

Where HACCP plans are included, these should be applicable to the chosen dishes on the menu.

### **LO2 Understand properties of nutrients.**

AC2.1, AC2.2, AC2.3

Diagrams of nutrient structure were seen to be used to assist candidates give a clear and detailed explanation. Where there was coverage and application of both Macro and Micronutrients relevant to the target group candidates were able to secure marks in the top bands.

Candidates' whose explanations made direct links to the nutrients in their dishes/ target groups requirements, provided understanding of biological value, complementary actions, nutrient density and Glycaemic index were able to secure marks in the top bands.

Where done well assessment of the impact of food production methods on nutritional value of ingredients in their chosen dishes included consideration of the loss and gain of relevant named nutrients during production, food processing/ preparation, as well as the cooking processes being demonstrated in the skills test.

### **LO3 Understand the relationship between nutrients and the human body.**

AC3.1, AC3.2, AC3.3, AC3.4

Functions of nutrients must be identified and related to the chosen target group. Candidates' who had included generic tables, often omitted to apply the information which they had included to their target group and consequently should only have been awarded marks in the lower bands.

Where Candidates' explained characteristics of an unsatisfactory nutritional intake and made an analysis of the nutritional need of that specific group they were able to secure marks in the top bands.

High level responses covered a wide range of situations which directly affected the nutritional needs of their target group, relating to health, occupation, finances available, activity level, religious beliefs, vegetarianism, dietary restrictions such as Coeliac or lactose intolerance, time of year, and the weather.

#### **LO4 Plan nutritional requirements.**

AC4.1, AC4.2

Some Candidates were seen to evaluate a range of diet plans/diets rather than carrying out an analysis of the fitness for purpose of their chosen menu in relation to their target groups requirements.

Candidates may have access to nutrition analysis software to enable them to analyse and discuss the nutritional suitability of their menu to their target group. It was noted that some Candidates were commenting on nutritional value of the whole product rather than individual portions.

Calculation of nutritional requirements should relate to the target groups requirement for key macro and micronutrients relevant to the life stage, occupation, lifestyle.

#### **LO5 Plan Production of complex dishes.**

C5.1, AC5.2

It is anticipated that candidates will have been introduced to a range of advanced preparation and cooking techniques during the delivery of the course. Guidance regarding appropriate level three skills can be found on the WJEC open website > resources for teachers > Unit 1 Practical Skills dishes.

Candidates who had clearly been introduced to a wide range of culinary skills during the delivery of the course went onto make skilled choices which matched the dietary requirements of their target group.

All candidates showed evidence of planning but with varying degrees of detail. Those able to access Mark Band 3 produced some excellent production plans; with evidence of complex dishes being dovetailed in respect of preparation; cooking & presentation. Many of these candidates also ensured that the layout of their plan supported the coverage of AC1.1 AC1.2 AC1.3 AC1.4 AC6.3 AC6.7 through the inclusion of columns for contingencies, critical & quality control points, monitoring of plan.

The production plan should contain enough detail for the chosen dishes to be prepared; cooked and presented by the candidate or a third party without the need for further instruction from recipes/separate methods. Some centres had not included any contingencies in their production plan hence a lower Mark Band should have been awarded.

The advanced preparation: cooking & presentation skills which are a requirement of the practical skills test should be evident in the production plans produced by the candidate to support comments made on the Observation Record Sheet about these having been witnessed.

## **LO6 Be able to cook complex dishes. The Practical Skills test.**

The practical skills test continues to be a strength for most Centres. Where candidates have been introduced to a range of complex preparation; cooking & presentation skills they were able to showcase their ability to produce some very high-quality outcomes. Moderators were still seeing practical outcomes at the other end of the spectrum; in some cases, this work was credited as complex when it did not meet the requirements expected at this level of qualification.

The complexity of the presentation skills seen by moderators was varied. For some centres this needs to be an area of focus. As not all presentation which had been awarded Mark Band 3 was considered complex.

The Observation Record Sheet is an important document; it is anticipated that the assessor will complete this in detail to evidence AC6.1, 6.2, 6.3,6.4,6.5,6.6,6.7. It is essential to confirm flavours were appropriate and balanced; and those working practices demonstrated by the candidate were also to a high standard. It would assist the moderation if a list of dishes being prepared was included on the Observation Record Sheet.

The planned practical work should be completed in one session with a duration of 3hrs 30 mins, at the end of which all the completed dishes should be presented together.

Candidates need to be encouraged to cook for and present two covers to meet the requirements of the allocated /chosen specific target group within the Model Assignment.

Chosen dishes need to show case use of:

- Three advanced preparation techniques
- Three advanced cooking techniques
- Complex presentation skills.

Guidance regarding appropriate level three skills can be found on the WJEC open website > resources for teachers > Unit 1 Practical Skills dishes.

To assist with the moderation of the final outcomes a large, coloured image of the completed menu is valuable to verify the marks awarded/quality of completed outcomes. Good practice observed is where candidates also include colour photographic evidence of each completed dish.

Photographic evidence of process/technique is not a requirement as these skills can be authenticated in the Observation Record Sheet.

Monitoring of production plans was still seen to have been marked generously by a few centres. It needs to be explicit in candidates work.

## **Interview**

The Assessor Information which is included in the Model Assignment; provides clear guidance as to resources which Candidates' may have access to for the interview.

“For task 3, learners may access class notes to prepare for the interview but cannot use them during the interview. They may however produce their own summary during the planning time which can be taken into the interview. This should be no more than one piece of paper.”

The interview is designed to support candidates in demonstrating a depth of understanding of the Assessment Criteria for this unit; the interview alone cannot be relied upon to facilitate/ credit Assessment Criteria coverage for the higher mark bands.



## General Comment for Centre

Thank you to centres who uploaded candidate work ahead of the deadline this enabled a prompt start to the moderation process. There was an improvement in the way documentation had been uploaded with most of the work being uploaded in one or two documents.

All uploads need to be clearly labelled as to the contents. Thank you to centres who had obviously thought about this as it was really appreciated by moderators when they were able to access work and documentation easily.

It would help the moderation process if blank pages in the middle of the uploaded work were avoided, along with checking that all pages of the work are uploaded.

Work for all candidates within the sample should be uploaded.

In some cases where the original handwriting on Mark Record Sheets was faint once this had been scanned it became very difficult to read. Care should also be taken to ensure a mark is recorded for each of the individual Assessment Criteria.

The Model Assignment is a summative assessment. Candidates cannot be credited for formative work; moderators saw marks being awarded for previous class discussions.

To assist the moderation, process it is helpful if candidates are encouraged to page number their work, an example of good practice as seen by use in centres has been where assessor annotation on the Mark Record Sheet refers to page number along with signposting of Assessment Criteria on candidates work. It is not the role of the moderator to mark or search for evidence of the assessment criteria on the candidates work.

Total marks need to be recorded on the front of the Mark Record Sheet not a grade. Care should be taken when adding up marks, the total on the Mark Record sheet should be the same as that entered electronically. It is important to ensure that candidate numbers are also recorded on the front page of the Mark Record sheet.

Half marks cannot be awarded, the work submitted should meet the Criteria for either Band 1,2 or 3.

It is good practice for each Candidate to include a front cover with.

- Unit number and title
- Candidate name and number
- Centre name and number
- Model assignment which has been selected with photograph of complete dishes.

The individual Centre moderators' reports are an invaluable source of feedback. It is important that assessors read them to ascertain which areas if any require development with future learners before embarking on the Model Assignment. In some cases, moderators were suggesting action points which had been made in a previous year's report. Where Centres had actioned points raised an improvement in the standard of work produced by Candidates was evident.

# FOOD SCIENCE AND NUTRITION

## Level 3

Summer 2024

### UNIT 3 EXPERIMENTING TO SOLVE FOOD PRODUCTION ISSUES

#### Overview of the Unit

Overall, this unit was completed well with a range of work presented for moderation, the obvious exception, of those who had misunderstood the task and /or the complexity of the task. There was some excellent food science knowledge demonstrated, with the results from the investigations being referred back to the problems in the each of the scenarios so realistic solutions could be found. This unit is to demonstrate the science of food, how it can be used to change the sensory attributes of a product and how analysis and evaluation can be used to determine solutions to food production problems. No set format is requested but when writing up the investigations, certain areas need to be covered: the problem the investigation is solving (the aim), success criteria/ hypothesis, the method, results in a range of formats, analysis of those results, reviewing the methodology and preparing a conclusion and evaluation for the client. Where these headings or similar were used moderation was easier and often all the Assessment Criteria were met.

It is important to ensure the specification and marking scheme are adhered to for the assignment as at times research and/or superfluous work was included which must have used the time allowance available to candidates in this unit but did not address any of the Assessment Criteria. In some cases, additional recipes were tagged on the end of the work or research into bakeries etc. was included. While research may help to inform the candidate, this does not need to be written up within the set time scale of the coursework itself.

Marking is still at times too generous with the depth of application and analysis not being present to secure access to the higher mark bands.

As part of the task instructions, it is important to note that all practical work is completed individually. If the cost-of-living crisis impacts on this, smaller amounts of ingredients can be used. It is also vital for the moderation process that clear photographic evidence is provided in the work uploaded.

A control recipe is essential when investigating a range of variables and only one variable should be changed for each investigation in order to adhere to fair testing and non-bias results.

It is good practice for each Candidate to include a front cover with;

- Unit number and title
- Candidate name and number
- Centre name and number
- Model assignment which has been selected.

## **Comments on individual questions/sections**

As in previous years there are still some areas of weakness across many centres:

### **AC2.2 Success Criteria**

While this has started to improve generally across centres there is still a trend to describe what SMART criteria are but not to apply it to the investigation or to demonstrate what the successful product of each investigation would look like (taste, texture, appearance) or use measurable criteria.

### **AC2.5 Review of Methodology**

This has definitely seen some improvement over the last two years and where done well by centres, the higher band marks are being achieved. However, some centres are still awarding higher mark bands when there is very little evidence of reviewing at all. Candidates must review what went well/not well for carrying out each investigation explaining the limitations in relation to ingredients used, equipment and time. Discussing bias future experiments, clinical testing could also be considered here.

### **AC3.3**

Scientifically justify proposed option, again this year more centres addressed this in the depth required, which was great to see but not all candidates use the command verb 'justify' accurately in this section. Here we are looking for scientific terminology, and justifying how and why food science changes the sensory characteristics of a product as well as improving the quality.

### **LO1 Understand the scientific properties of food.**

This was primarily completed well but there could be a leaning towards generic work in some cases and all food science was discussed instead of those specific to the actual chosen scenario. While ingredients, their variables and changes were most often discussed, processes themselves such as kneading or shortening could be missing. There were some excellent examples of the higher mark band in this learning objective. The completion of the Observation Record Sheet is essential for any practical work carried out to make it clear where credit has been awarded.

### **LO2 Be able to scientifically investigate changes to food.**

A range of investigations need to take place, and as all of the three present scenarios have at least 4 to 5 food problems to solve. It is vital a control investigation takes place at first as a base from which to change the variables for a range of different investigations. It is important that each investigation is realistic and relevant to the aims identified when completing the control.

Across all the centres there was a wide variety of different recording methods used to show the results from the investigational work. Again, this was pleasing to see. This data must be clear and realistic conveying a basis on which to make reasoned judgments. This could include tables, star profile tasting, pie/bar charts and photographs. It is useful to see good quality photographs clearly showing the quality of the textures and cross section photographs enabling candidates to make meaningful observations and more detailed evaluations. Each investigation must be analysed with candidates referring back to the original success criteria allowing conclusions to be drawn.

### **LO3 Be able to solve food production problems.**

Application and analysis must be completed for the higher mark bands to be awarded and it is here that work is often generously marked.

Candidates need to be able to categorise the issues to clearly identify what the problems are. The limitation of ingredients and equipment used should be applied to the problems in the brief.

Candidates need to produce a revised detailed recipe, and advice on method of making for the product successfully addressing the initial problems. This can be presented as a report, letter, PowerPoint or story board to the manufacturer explaining clearly what the issues were during production with detailed suggestions for improvements. These must be explained well to justify the new proposed recipe. The use of both primary and secondary data supported the findings and final report. It is here that the candidates can demonstrate their knowledge of the science and function of ingredients.

Some candidates presented work that was worthy of full marks: they were scientifically accurate, investigations demonstrated **a range of** food properties, the data was presented with a variety of recording methods, bias was discussed, and this was all relevant to the task.

# FOOD SCIENCE AND NUTRITION

## Level 3

Summer 2024

### UNIT 4 CURRENT ISSUES IN FOOD SCIENCE AND NUTRITION

#### Overview of the Unit

The unit assesses candidates understanding of current issues in Food Science and Nutrition through investigation of a topic of their choice. The assessment requires candidates to identify and use a number of skills, techniques, concepts, theories, and knowledge from across the course content. Through this unit candidates should develop the skills needed to plan, carry out and present a research project on current issues linked to issues related to Food Science and Nutrition. This could be from the perspective of a consumer, food manufacturer, caterer or policy maker.

A wide range of topics were chosen this year. Candidates showed a deep interest in a range of current issues and some of the best work was from candidates who were exploring a topic with a personal interest for them.

Environmental issues were popular, and it was good to see some local interest for example, in the growth of farmers markets. There were also many research tasks based on the effects of climate change on food production and the growing interest in the effect of meat production on climate. These wider environmental topics can be a little broad and candidates can often find little opportunity for the production of meaningful primary research. Topics which the candidate will have some personal experience of at this stage in their education work well. Topics which can only be studied at a theoretical level are less successful.

Projects on school meals continue to be popular and allow ideal opportunity to include stakeholders in evaluation of results of investigation. Provision of breakfast in schools also featured. Large amounts of secondary information from trustworthy sources, such as Government produced reports is also useful for this sort of research task.

There continues to be interest in the effect of changing technology on the way we buy and eat food. Projects on ultra processed foods, fast food and the resulting lack of cooking skills were interesting and provided lots of opportunity to gather opinions of stakeholders. Ethical considerations were also evident in many titles, providing good opportunities for interesting hypotheses. Projects on the effect of mental health on food consumption were also popular but these sometimes proved to be difficult, being more based in the study of psychology than the study of food.

The cost of living proved to be a hot topic and many candidates studied the effect of rising prices, the provision of food banks and the ability of people on a budget being able to provide healthy meals for their family.

Diets for people with different needs, such as athletes, the elderly, vegetarians again provided lots of opportunity to produce meaningful primary research, firmly rooted in the study of food and nutrition.

Candidates who completed tasks based on a topic of which they had prior knowledge did well. It was good to see less projects which looked at the effect of social media on eating habits. Candidates have struggled to produce meaningful research and analysis for this type of media-based topics over the past few years.

Interestingly, few candidates study food provision, other than school meals, while many study issues regarding food consumption.

The choice of topic and the resulting hypothesis are key to successful study and attainment in this unit.

Too broad a topic, or a topic where the candidate will struggle to manage the scope can hinder completion. Candidates must choose a topic where they will be able to study in an unbiased manner. Hypotheses should be succinct and can usually be formed in one sentence. This year some candidates have submitted long hypotheses which did not focus on a specific point to be proved or disproved. This should be avoided as the resulting research often has little focus. Care should be taken by centres to provide guidance on suitable topics and how to phrase a hypothesis, before the assessment begins.

Centres should be guided by exemplar materials provided by the exam board as regards the format of work submitted. Some candidates spent far too long on LO1 resulting in less research being produced. Complex plans take time to write. A succinct rational, plan of action with clear aims and objectives are required.

The format used to complete Unit 4 is a key point for successful completion. This year less candidates wasted time on considering alternative topics. Some candidates did not carefully consider the assessment criteria, and some missed whole criteria as a result of poor format. Some candidates have submitted large amounts of information about hypothetical methods of gathering research, including very detailed but completely unnecessary description of the advantages and disadvantages of each method. This sort of information is not required unless used to justify their own completed research. Chosen methodology should be analysed and relate to their own investigations. Candidates should consider whether their own investigations were useful, whether results gathered were unbiased, fair or accurate.

### **Comments on individual questions/sections**

#### **AC1.1 Propose research into a current issue related to food science and nutrition.**

A positive point seen this year was there was less mind mapping of alternative topics. This is not a requirement and wastes valuable time. Candidates should only provide a brief rationale for the topic they then continue to complete. Too many aims can confuse candidates and cause them to lose focus and consequently are unlikely to be completed. Stakeholders should be identified at this stage; it is important to work out how key stakeholders can later be included in the research. Once the topic is identified (often in the form of a question) it is then essential to produce a hypothesis, or theory, regarding the results of the research, which can then be proved or disproved.

#### **AC1.2 Plan research into a current issue.**

The plan should identify the way research will be completed and should be linked to the aims. The type of research should be identified, Primary or secondary. It should provide a sequence and timeframe for the task to be completed. It is often completed alongside AC1.3 and AC2.1. Candidates should plan to include a variety of types of primary research. Too often candidates are only producing a questionnaire or brief interview. Again, candidates should not spend too long on the plan and should not include too many possible methods of research, that they have no intention of using.

### **AC1.3 Justify plan for research.**

Candidates can present advantages and disadvantages for each of their chosen methods, linked to specific aims. However, there is no need to suggest advantages and disadvantages of many other methods that they do not intend to use. Candidates who also use a select and reject process are able to access higher mark bands. It must be clear how the method chosen will help prove or disprove the hypothesis. It should also be clear how accuracy and bias will be addressed.

### **AC2.1 Monitor project progress.**

This is often included in the planning table, and while this may help organise thoughts, it is necessary to produce comments throughout the process. It should not be a case of done/not done or just comments about amount of time or number of lessons used. There should be a clear flow through the process, where plans can be changed, if necessary, because of completed research. Centres who have produced a comment within the activity, as part of each conclusion, about next steps, have done well. Monitoring can be credited where found throughout the process; assessor annotation is helpful here.

### **AC2.2 Evaluate research project.**

This is often a weak area. Some candidates have misunderstood the purpose of this section. It should be part of the monitoring process and completed through the task as each activity is completed. Has the method used worked? If not, can the process be improved? It should identify weaknesses in the method used and be analytical, rather than be descriptive of the process used. It should evaluate the quality of methods used.

### **AC3.1 Describe research methodology.**

A wide range of primary research tools should be designed to collect useful, reliable data. This has become a problem when candidates have not considered at the outset how their hypothesis can be proven. Too broad a topic can result in little opportunities for primary research. This criterion should be used to explain how candidates have proved their results are fair, objective and reliable. Secondary sources are often taken at face value and candidates lose marks here if they do not consider how reliable their source of information is. Comments found on social media, for example, may not be trustworthy, which is fine, as long as the candidate understands and acknowledges that, and uses other more trustworthy sources of information also.

### **AC3.2 Design primary research tools.**

Some candidates did not record how they had produced their research, this is a mistake as it will lose them marks. Nearly every candidate produces a questionnaire, but other forms of primary research are possible and should be used to gain valuable data. It is also important to test questionnaires, adapt where necessary and consider how bias has been avoided. Candidates are studying Food Science and Nutrition, and they should produce methods of testing their data, practical activities, comparisons, nutritional analysis, costings and scientific experiments. This should be encouraged as it provides valuable data for analysis in AC3.3. Candidates who do not produce a range of primary research also struggle to gain the higher mark band for AC3.3 and AC3.4. It is necessary to present collected data in a suitable format which is fit for purpose and can be analysed. It should draw on knowledge collected in secondary research and use this knowledge to justify all results and conclusions made. Using the format aim, method, results and conclusions for each investigation may help candidates analyse their results in more detail.

### **AC3.3 Analyse data.**

Candidates at the lower end sometimes struggle to produce meaningful analysis. This is often a weak area and care should be taken to explain in advance of starting the project how this could be completed. It is important to be analytical rather than descriptive of the process. Relevant trends and patterns should be identified. Candidates must write clear conclusions which link back to the aims and hypothesis. Candidates should identify whether their primary research supports their secondary research.

### **AC3.4 Evaluate the quality of information.**

Evaluations should be analytical, rather than descriptive. The candidates can struggle here if their initial wording of the hypothesis is poor, unfocused or too broad. A weak hypothesis and unfocused aims can make it difficult to evaluate the methods of research used. Also, if there is little collected data, as a result of only producing one or two types of primary research, the evaluations are likely to lack detail. The candidates should examine a wide range of information sources. The quality of the collected data should be analysed, and any discrepancies explained. Candidates must consider how trustworthy their sources are and whether their methods have considered accuracy or bias.

### **AC4.1 Analyse current issues related to food science and nutrition.**

This section has been done to a better standard this year. However, candidates who do not manage their time well often struggle to complete this section. This is the culmination of their project. Candidates should bring together all completed research in order to decide whether their hypothesis was correct or not. A summary of the results of each investigation should be presented along with conclusions, drawn from evidence. How has prior learning contributed to the outcome? Has opinion been changed or reinforced? Candidates must refer back to the hypothesis. Has it been proved or disproved? Conclusions should be presented clearly. It should not be a list of what they have done or not done.

### **AC4.2. Evaluate how key stakeholders respond to current issues.**

This is nearly always a weak area. The key word here is evaluate. Most candidates identify many stakeholders at the start of the process but often, these stakeholders are then put aside and not included in the task. Care again should be taken at the start of the task to ensure that stakeholders could be contacted and respond to results produced. Sometimes, if the task has been too broad, it would be impossible to get feedback from relevant stakeholders, such as Government departments. It is important to gather and include the opinions of stakeholders at the conclusion of the task. This can be done throughout or could form a presentation at the end. Very few candidates complete this section well and often the conclusion contains biased opinions which are based on the candidates' preconceptions. It is important to keep an open mind during the task. Issues which are locally based produce ideal opportunities for contacting and including stakeholders.



## **Main points**

- The best work was presented by candidates who had a personal interest or detailed prior knowledge of a particular issue.
- A wide range of current issues were studied including the impact of the cost of living crisis, environmental issues, diets for a range of needs, the impact of processed foods on health and wellbeing.
- Few candidates studied food provision and many focused on food consumption.
- Some candidates did not form a succinct and clear rationale for study. A focussed hypothesis is key to success. Too broad a topic, or a topic where the candidate will struggle to manage the scope will hinder completion.
- Many candidates spent too much time completing LO2 at the planning stage. They struggled to manage their time well and, in many cases, LO3 was too brief with many candidates producing few types of primary research.
- There has been an increase in candidates missing objectives. It is important to ensure that Learning Objectives one to four are completed and criteria are not missed in the process. A suitable format should include these objectives in a logical order.
- Candidates can often become descriptive rather than analytical resulting in marks lost in AC3 and AC4. In particular AC4.2 (Evaluate how key stakeholders respond to current issues) is a weak area with many candidates not including a response from stakeholders.

## **Summary of key points**

This year we have seen an increase in candidates missing essential learning / assessment objectives. It is important to ensure that Learning Objectives one to four are completed and criteria are not missed in the process. A suitable format should include these objectives in a logical order. Exemplar work from WJEC is available. The resulting report should be succinct, relevant and to the point. Candidates can often become descriptive rather than analytical, resulting in marks lost in AC3 and AC4. Good annotation by the assessor is essential. Assessors should use the space provided on marksheets to sign post where evidence can be found. The use of page numbers helps this process. Handwritten annotation on the work itself is also useful, especially if candidates have not used headings or where evidence has been mislabelled. Time sheets should be completed to show how the time has been used. Candidates and assessors should complete the declaration with a signature. The overall mark (out of 31) should be included on the Unit 4 cover sheet along with signatures of assessor and candidate.

As we have moved to electronic submission, please ensure that all work is uploaded in one document, with continuous pages in a suitable format. Please take time to check the submission once uploaded, as centres can sometimes upload the wrong unit, or pages have been found to be missing, are upside down or are in the wrong order which can significantly hinder the moderation process. Please ensure handwritten annotation can be seen and is legible. Please refer to advice supplied by WJEC as regards the uploading process.

## **Supporting you**

### **Useful contacts and links**

Our friendly subject team is on hand to support you between 8.30am and 5.00pm, Monday to Friday.

Tel: 029 2240 4262

Email: [food@wjec.co.uk](mailto:food@wjec.co.uk)

Qualification webpage: [Level 3 Food Science and Nutrition \(wjec.co.uk\)](https://www.wjec.co.uk/level-3-food-science-and-nutrition)

See other useful contacts here: [Useful Contacts | WJEC](#)

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