



GCSE MARKING SCHEME

SUMMER 2019

**GCSE
FOOD AND NUTRITION - UNIT 1
3560UA0-1**

INTRODUCTION

This marking scheme was used by WJEC for the 2019 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

WJEC GCSE FOOD AND NUTRITION (NEW)

SUMMER 2019 MARK SCHEME

Guidance for examiners

Positive marking

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, rather than adopting the approach of penalising him/her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme.

For questions that are objective or points-based the mark scheme should be applied precisely. Marks should be awarded as indicated and no further subdivision made.

Banded mark schemes

For band marked questions mark schemes are in two parts.

Part 1 is advice on the indicative content that suggests the range of food preparation and nutrition, concepts, facts, issues and arguments which may be included in the learner's answers. These can be used to assess the quality of the learner's response.

Part 2 is an assessment grid advising bands and associated marks that should be given to responses which demonstrate the qualities needed in AO1, AO2 and AO4. Where a response is not creditworthy or not attempted it is indicated on the grid as mark band zero.

Examiners should first read and annotate a learner's answer to pick out the evidence that is being assessed in that question. Once the annotation is complete, the mark scheme can be applied.

This is done as a two stage process.

Stage 1 – Deciding on the band

Beginning at the lowest band, examiners should look at the learner's answer and check whether it matches the descriptor for that band. If the descriptor at the lowest band is satisfied, examiners should move up to the next band and repeat this process for each band until the descriptor matches the answer.

If an answer covers different aspects of different bands within the mark scheme, a 'best fit' approach should be adopted to decide on the band and then the learner's response should be used to decide on the mark within the band. For instance if a response is mainly in band 2 but with a limited amount of band 3 content, the answer would be placed in band 2, but the mark awarded would be close to the top of band 2 as a result of the band 3 content. Examiners should not seek to mark candidates down as a result of small omissions in minor areas of an answer.

Stage 2 – Deciding on the mark

During standardising (marking conference), detailed advice from the Principal Examiner on the qualities of each mark band will be given. Examiners will then receive examples of answers in each mark band that have been awarded a mark by the Principal Examiner. Examiners should mark the examples and compare their marks with those of the Principal Examiner.

When marking, examiners can use these examples to decide whether a learner's response is of a superior, inferior or comparable standard to the example. Examiners are reminded of the need to revisit the answer as they apply the mark scheme in order to confirm that the band and the mark allocated is appropriate to the response provided.

Indicative content is also provided for banded mark schemes. Indicative content is not exhaustive, and any other valid points must be credited. In order to reach the highest bands of the mark scheme a learner need not cover all of the points mentioned in the indicative content but must meet the requirements of the highest mark band. Where a response is not creditworthy, that is contains nothing of any significance to the mark scheme, or where no response has been provided, no marks should be awarded.

Q	Section A Answer	Mark	AO1	AO2	AO4	Total
1. (a)	<p>Award 1 mark for the correct response.</p> <ul style="list-style-type: none"> • Durum wheat semolina • Pasta flour/'00' superfine flour • Strong plain flour/bread flour • Flour • Plain flour 	1	1			1
(b)	<p>Award 1 mark for a correct ingredient.</p> <ul style="list-style-type: none"> • Beetroot • Fresh/Dried herbs e.g. basil – doesn't have to be named, pesto • Turmeric • Saffron • Spinach/Vegetable puree • Squid ink • Tomato puree • Wholemeal flour <p>Do not accept food dye.</p>	1	1			1
(c)	<p>Award 2 marks for each correct named pasta shape.</p> <ul style="list-style-type: none"> • Spaghetti • Fusilli/twist • Penne/tubes • Spiralli/swirls/twirls/spirals • Cannelloni • Macaroni • Rotini • Farfalle/bows • Conchiglie/shells • Rigatoni • Lasagna • Tagiatelle/ribbons • Ravioli • Tortellini • Linguini <p>Accept any other suitable traditional named pasta shape.</p>	2	2			2

Q	Section A Answer	Mark	AO1	AO2	AO4	Total
(d)	<p>Award 3 marks for a response including the following:</p> <ul style="list-style-type: none"> • Pasta contains wheat flour which contains gluten • Coeliac are gluten intolerant • Unable to digest gluten • Can cause stomach to bloat/makes them ill 	3	3			3

Band	AO2
3	Award 3 marks for an excellent explanation reference to gluten with explanation and symptom(s).
2	Award 2 marks for a good explanation- mentions gluten with some explanation.
1	Award 1 mark for a basic response.
0	Award 0 marks not credit worthy or not attempted.

Q	Section A Answer	Mark	AO1	AO2	AO4	Total
(e)	<p>Award up to 5 marks.</p> <p>Indicative content.</p> <p>Answers could include:</p> <ul style="list-style-type: none"> • High in starchy carbohydrate/wheat (Low GI) • Good source of protein • Good source of B Vitamins • Wholemeal pasta good source of dietary fibre • Low fat • Slow energy release for active people • Excess carbohydrate stored as glucose turn into fat • Carbohydrate loading before activity e.g. race • Quick and easy to cook • Widely available • Filling – satiety, adds bulk • Staple food • Not expensive • Can be eaten on the “go” <p>Credit any other acceptable response.</p> <p>As question does not say nutritional value – other relevant responses may be credited.</p>	5		5		5
Total marks section A		12	8	4		12

Band	AO2
3	Award 4-5 marks for an excellent response with specific clear detailed application of knowledge and understanding of the nutritional value and other benefits of including pasta in the diet. Response will contain at least 4 factors within the indicative content. All points are clearly reasoned, relevant to the target group – active young adult, and there is appropriate use of terminology.
2	Award 2-3 marks for a good response with some application of knowledge and explanation of the nutrients and benefits of pasta. 2-3 nutrients have been identified and there is some evidence of reasoning. The candidate has attempted to use technical terminology.
1	Award 1 mark for a basic response which provides little understanding of nutrients in pasta. Very little terminology included. Perhaps 1 point listed from the indicative list.
0	0 marks not credit worthy or not attempted.

Q	Section B Answer	Mark	AO1	AO2	AO4	Total
2. (a)	<p>Award 1 mark for each correct response.</p> <p>Answers could refer to:</p> <ul style="list-style-type: none"> • Sweetness • Flavour • Colour/golden colour, caramelisation • Texture • Traps air during the creaming process with the butter/margarine 	2	2			2
(b)	<p>Award 1 mark for the correct response.</p> <ul style="list-style-type: none"> • Eggs 	1	1			1
(c)	<p>Award 1 mark for each for each correct reason.</p> <p>Answers could refer to:</p> <ul style="list-style-type: none"> • Inaccurate measuring of ingredients/not enough flour/sugar etc. – maximum of 1 • Too much raising agent such as baking powder • Opening oven door during cooking allowing cool air to enter the oven • Undercooking the cake • Moving the cake too soon • Uneven mixture in the tin • Overbeating adds too much air • Incorrect oven temperature/too hot/too cold/not enough heat <p>Credit any other acceptable response.</p>	3		3		3

Q	Answer	Mark	AO1	AO2	AO4	Total
3. (a)	<p>Award up to 4 marks.</p> <p>Indicative content:</p> <ul style="list-style-type: none"> • Simple – quick release energy/energy spike • Directly absorbed during digestion • Mainly sourced from sugar • Sugar in foods/drinks found naturally and added during manufacturing • ‘Empty’ calories – no nutritional value • Examples include – monosaccharides and disaccharides • Starch is a complex carbohydrate • Slow release glucose energy into the blood • Polysaccharides including potatoes, rice, wheat • Reference to GI • Starch is pectrial fibre: some reference may be made to the above and should be credited. <p>Credit any other acceptable response.</p>	4	4			4

Band	AO1
3	Award 4 marks for an excellent explanation which is balanced.
2	Award 2-3 marks for a good explanation- may focus on one more than the other.
1	Award 1 mark for basic explanation.
0	Award 0 marks not credit worthy or not attempted.

Q	Answer	Mark	AO1	AO2	AO4	Total
(b)	<p>Award up to 4 marks.</p> <p>Indicative content:</p> <p>Answers could include:</p> <ul style="list-style-type: none"> • Reduce consumption of sugary drinks/choose sugar free options • Choose foods without added sugar • Check food labels • Use less 'free sugar' • Choose fruit instead of high sugar foods like chocolate • Use artificial sweeteners instead of sugar • Choose fruit canned in natural juice rather than syrup • Eat reduced sugar breakfast cereal e.g. wholegrain cereals • Increase starchy carbohydrates in the diet to avoid snacking on simple sugars • Increase dietary fibre in the diet to avoid snacking on simple sugars <p>Credit any other acceptable response.</p>	4		4		4

Band	AO2
2	Award 3-4 marks for a good response which shows clear knowledge and understanding of how sugar consumption can be reduced. Clear reference is made to the indicative content and has been described and discussed. The candidate has made good use of technical vocabulary.
1	Award 1-2 marks for a satisfactory response which shows some knowledge and some reference made to the indicative content to suggest how sugar consumption can be reduced. The candidate has attempted to use technical terminology.
0	Award 0 marks not credit worthy or not attempted.

Q	Answer	Mark	AO1	AO2	AO4	Total
4. (a)	<p>Award 1 mark for each correct response.</p> <ul style="list-style-type: none"> • Sales are steadily increasing • There was a dip in 2017 • Highest sales in 2018 • Lowest sales in 2015 • Rapid increase after 2017 	2	2			2
(b)	<p>Award up to 6 marks.</p> <p>Indicative content:</p> <p>Answers could refer to:</p> <ul style="list-style-type: none"> • Healthy eating options – Slimming World • Vegetarian options/vegan • Use of smart starches in food technology • Special dietary needs e.g. vegetarian • Ethical/moral/religion needs • Longer shelf life • Added colours/preservatives • Free from additives/preservatives • Toddler and children’s meals • Smaller portion sizes • Various price range luxury-inexpensive/cheap • Dine in special offers • International range/different cuisines • Free from range • Organic range • Allergy • Wider ranges available frozen and refrigerated • Can be microwaved <p>Credit any other acceptable response.</p>	3	3		3	6

Band	AO1 Maximum 3 marks	AO4 Maximum 3 marks
3	Award 3 marks for an excellent response that clearly demonstrates knowledge and understanding of the range of ready meals 2-3 examples from the indicative content have been explained with some reasoning.	Award 3 marks for an excellent response that clearly analyses and evaluates the use of ready meals.
2	Award 2 marks for a good response which shows some knowledge and understanding of the range of. ready meals 1-2 examples from the indicative content have been explained with some reasoning.	Award 2 marks for a good response that analyses and evaluates the use of ready meals.
1	Award 1 mark for a basic response that includes little evidence of understanding.	Award 1 mark for a response that shows some attempt to evaluate the use of ready meals.
0	Award 0 marks not credit worthy or not attempted.	Award 0 marks not credit worthy or not attempted.

Q	Answer	Mark	AO1	AO2	AO4	Total
5. (a)	<p>Award up to 4 marks.</p> <p>Indicative content:</p> <p>Answers could include:</p> <ul style="list-style-type: none"> • Protein denatures (unravels) at 60°C • Protein coagulates • Structure of protein in meat is irreversibly changed by heat resulting in shrinking, firming, loss of moisture • Protein fibres become firmer • Maillard reaction occurs when dry heat applied to protein (chemical reaction between the amino acids) • Causes the meat to change colour – if qualified • Physical change - the chemical change is the loss or squeezing out of liquid protein and the Maillard browning and the of crust cooking leading of flavor in most cooking • Fibres soften (moist methods) and makes food easier to digest <p>Credit any other acceptable response.</p>	4	4			4

Band	AO1
3	Award 3-4 marks for an excellent description of 3 or more points from the indicative content explaining the chemical changes that take place during cooking of protein. Excellent use of technical terminology.
2	Award 2 marks for a good description of at least 2 factors from the indicative content. A good attempt to use some of the technical terminology.
1	Award 1 mark for a basic response possibly just one change is identified.
0	Award 0 marks not credit worthy or not attempted.

Q	Answer	Mark	AO1	AO2	AO4	Total
(b)	<p>Award up to 5 marks.</p> <p>Indicative content.</p> <p>Answers could include:</p> <ul style="list-style-type: none"> • Use of food logos to ensure the quality of meat such as Red Tractor • EU regulations on food law make traceability a requirement for food especially meat products. • Farmers are responsible to trace all elements of the animal before slaughtering. • Traceability also means manufacturing and processing has to be regulated. • Every stage of production is recorded so it is easier for meat to be traced back to the origin. • Many people believe buying free range/locally produced meat is 'better' and more trustworthy than larger producers. Reference to organic • Supporting local farming business • Protected status for meats e.g. Welsh black • Proves animals have been vaccinated/hormones • Food miles • Hygiene standards during rearing • Reassures the consumer meat is safe to eat/not contaminated • Reassures the consumer that the meat is what is stated on the packet – i.e. Beef not horse! <p>Credit any other acceptable response.</p>	5		5		5

Band	AO2
3	Award 5 marks for an excellent discussion on the traceability of meat. Clearly identifies the issues surrounding meat production.
2	Award 3-4 marks for a good discussion of some of the issues surrounding traceability of meat.
1	Award 1-2 marks for a basic response possibly just one factor is identified.
0	Award 0 marks not credit worthy or not attempted

Q	Answer	Mark	AO1	AO2	AO4	Total
6. (a)	<p>Award 1 mark each for correctly identifying any two of the following:</p> <ul style="list-style-type: none"> • Campylobacter • Salmonella • E Coli (O157) • Staphylococcus aureus • Listeria • Bacillus cereus • Clostridium • Shigella 	2	2			2
(b)	<p>Award 1 mark for correctly identifying three of the following factors:</p> <ul style="list-style-type: none"> • Warmth (danger zone 5-63°C- not needed for the mark) • Time • Moisture/water/damp • Food/energy source • Oxygen/air • PH level 	3	3			3
(c)	<p>Award up to 8 marks.</p> <p>Indicative content.</p> <p>Answers could include:</p> <p>Preparation</p> <ul style="list-style-type: none"> • Ensure food is stored correctly before preparation and cooking, avoid food temperature rising into the danger zone 5-63°C • Personal hygiene, hands washed, clean work surfaces and equipment, hair tied back, use of gloves etc. • Use colour coded equipment • Frequent hand washing. • Correct storage off cooked and raw foods in the refrigerator (cooked above raw foods) • Applying HACCP to reduce risk <p>Cooking</p> <ul style="list-style-type: none"> • Cooking meat products such as burgers and sausages to above 72°C for 2 minutes, using a temperature probe to check • Avoid cross contamination of cooked/raw foods • Cooking safely on a BBQ, ensuring that meat is thoroughly cooked. Burnt on outside/raw in middle/cooked on both sides 	8		4	4	8

Q	Answer	Mark	AO1	AO2	AO4	Total
	<p>Serving</p> <ul style="list-style-type: none"> • Cover all foods • If reheating the foods ensure temperature is checked • Avoid keeping food out of the refrigerator for too long • Serving food using utensils • Avoid leaving food uncovered and at room temperature • Personal hygiene • Use of cold storage/cooler box/refrigeration <p>Credit any other acceptable response.</p>					

Band	AO2 Max 4 marks	AO4 Max 4 marks
3	<p>Award 4 marks</p> <p>The candidate has written an excellent response which demonstrated clear knowledge understanding of the safe preparation, cooking and serving of food. Terminology used confidently and accurately in relation to the indicative content.</p>	<p>Award 4 marks</p> <p>The candidate has produced an excellent response showing very good analysis of the importance to food safety.</p>
2	<p>Award 2-3 marks</p> <p>The candidate has written a good response that demonstrates an adequate level of knowledge and understanding the safe preparation, cooking and serving of food. The candidate has used appropriate technical terminology referring to the indicative content.</p>	<p>Award 2-3 marks</p> <p>The candidate has produced a good response demonstrating adequate analysis of the importance to food safety.</p>
1	<p>Award 1 mark</p> <p>The candidate has written a limited response that demonstrates a basic level of knowledge and understanding of food hygiene.</p>	<p>Award 1 mark</p> <p>The candidate has demonstrated limited analysis on food safety.</p>
0	<p>Award 0 marks</p> <p>Response not credit worthy or not attempted.</p>	<p>Award 0 marks</p> <p>Response not credit worthy or not attempted.</p>
<p>Award maximum of 3 marks for a response which is presented as a list.</p>		

Q	Answer	Mark	AO1	AO2	AO4	Total
7. (a)	<p>Award 1 mark for correct example.</p> <p>Award up to 3 marks for the explanation.</p> <p>Marks can be awarded for naming, even if explanation is incorrect.</p> <p>Marks can be awarded for explanation, even if the named dish/product is incorrect.</p> <p>(i) Emulsification Examples</p> <ul style="list-style-type: none"> • Mayonnaise, alioli, creaming mixture in cake making <p>(ii) Explanation</p> <ul style="list-style-type: none"> • The protein in egg yolk lecithin holds together the oil and water/eggs help the oil and water to mix together • Stops the mixture from separating due to water loving/water hating ends enabling chemical bonds with water <p>(iii) Aeration Examples</p> <ul style="list-style-type: none"> • Mousses, souffles, meringues, whisked sponges/Victoria cakes <p>(iv) Explanation</p> <ul style="list-style-type: none"> • Egg proteins stretch when whisked or beaten • Ovalbumin in eggs enables the air to become trapped making a light and foamy mixture • Acts as a raising agent in cake making 	8	2	6		8

Band	AO2
3	Award 3 marks for a very good explanation.
2	Award 2 marks for a good explanation.
1	Award 1 mark for basic explanation.
0	Award 0 marks not credit worthy or not attempted.

Q	Answer	Mark	AO1	AO2	AO4	Total
(b)	<p>Award up to 6 marks.</p> <ul style="list-style-type: none"> • Protein (HBV) 6.2g pf protein from an average size egg • Fat- around 9% of the egg is fat found in the yolk. The white (albumen) is lower in fat less than 0.5% • Cholesterol. Eggs used to be widely recognised as being high in cholesterol and therefore a negative effect in a diet. However, they have reduced in percentage of cholesterol • Omega-3 fatty acids which can help reduce heart disease. • Vitamins A, D and E • Vitamin B2, B12. • Minerals iodine and phosphorus, zinc, selenium and calcium • Eggs contain no carbohydrate and no dietary fibre • Eggs are an inexpensive source of protein • Egg yolk rich in iron <p>Also credit responses that also refer to the function of the nutrients found in eggs.</p> <ul style="list-style-type: none"> • Good source of protein needed for growth and repair • Contains iron needed for red blood cells etc. <p>Credit any other acceptable response.</p>	6		3	3	6

Band	AO2	AO4
3	Award 3 marks for an excellent answer which shows in depth application of knowledge and understanding of the correct nutritional benefits of including egg in the diet. Excellent terminology.	Award 3 marks for a detailed evaluative commentary on the use of eggs in the diet.
2	Award 2 marks for a good response which shows some knowledge and understanding of nutritional benefits of including egg in the diet. Some terminology used.	Award 2 marks for a satisfactory evaluative commentary on the use of eggs in the diet.
1	Award 1 mark for a basic response that includes some basic reference to the nutritional content of eggs.	Award 1 mark for an attempt to evaluate the use of eggs in the diet.
0	Award 0 marks not credit worthy or not attempted.	

Q	Answer	Mark	AO1	AO2	AO4	Total
8.	<p>Award up to 10 marks.</p> <p>Indicative content.</p> <p>Meeting needs of individuals.</p> <p>Social</p> <ul style="list-style-type: none"> • Eating together as a family/family gatherings/celebrations • Cooking together • Eating at a table rather than in front of the TV • Current trends suggest teenagers are eating diets high in saturated fatty acids resulting in weight gain • Busy active children and/or adults/parents have limited time to prepare nutritious meals rely on convenience foods • Peer pressure to eat certain foods • Different dietary needs such as food choice vegetarian/diabetes/allergies • Influence from social media • Eating out at restaurants • Food poverty/budgets • Limited options based on limited transport <p>Ethical/moral/religious</p> <ul style="list-style-type: none"> • Fair trade • Religious choices • GM foods • Organic foods • Free From range - allergies • Religious food choices • Western food influences on other cultures • Vegetarian choices and animal welfare issues • Supporting local farming communities, buying local food • Less air miles, better for the environment • Local markets • Halal/kosher foods • Multicultural foods <p>N.B: Reasons should be included.</p> <p>Credit any other acceptable response.</p>	10			10	10

Band	AO4 10 marks
3	Award 8-10 marks A comprehensive response discussing and evaluating social, religious, moral and ethical factors to consider when planning meals for a family. Response demonstrates excellent analysis and evaluation related to a range of within the indicative content. Technical terms are used with ease and accuracy.
2	Award 5-7 marks A well balanced excellent response discussing and evaluating social, religious moral and ethical factors to consider when planning meals for a family. Response demonstrates good analysis and evaluation related to some points within the indicative content. Technical terms are used with ease and accuracy.
1	Award 1-4 marks Some discussion and evaluation in social, religious moral and ethical factors to consider when planning meals for a family. Response may be presented as a list. Limited use of technical vocabulary.
0	Award 0 marks not credit worthy or not attempted.

Question		Mark	AO1	AO2	AO4	Total
1.	(a)	1	1			
	(b)	1	1			
	(c)	2	2			
	(d)	3		3		
	(e)	5		5		12
2.	(a)	2	2			
	(b)	1	1			
	(c)	3		3		6
3.	(a)	4	4			
	(b)	4		4		8
4.	(a)	2	2			
	(b)	6	3		3	8
5.	(a)	4	4			
	(b)	5		5		9
6.	(a)	2	2			
	(b)	3	3			
	(c)	8		4	4	13
7.	(a)	8	2	6		
	(b)	6	3		3	14
8.		10			10	10
	Totals	80	30	30	20	80
	% AO		15%	15%	10%	40%