



GCSE MARKING SCHEME

SUMMER 2022

FOOD AND NUTRITION - UNIT 1
3560UA0-1

INTRODUCTION

This marking scheme was used by WJEC for the 2022 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.

GCSE FOOD AND NUTRITION - UNIT 1

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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.

SECTION A

Question	Answer	Mark	AO1	AO2	AO4	Total
1. (a)	State two different methods for making a cheese sauce. Award 1 mark for each correct response. • All in one- One – stage • Roux Accept spelling variations for Roux.	2	2			2
(b)	Name one ingredient that is used to thicken a cheese sauce. Award 1 mark for the correct ingredient. • Flour (any type) • Cornflour	1	1			1
(c)	Many problems can occur when making a cheese sauce. Complete the table below to match the problem to the correct cause. Award 1 mark for the correct response 1. D 2. B 3. A 4. C	4		4		4
(d)	Give three reasons why a sauce is used in some dishes. Award 1 mark for each correct response up to a maximum of 3 Answers could include: • To enhance flavour of food • To provide a contrasting flavour • To provide texture • To bind ingredients together Make everything stick togetherTo add colour to a dish • As decoration – adds to colour, appearance etc. • Doesn't look boring / make it presentable/good appearance/appealing/ attractive / appetising • To contribute to the nutritional value of a dish • To add moisture (make the dish more moist) • To enrich the meal Credit any other suitable response.	3	3			3

Question	Answer	Mark	AO1	AO2	AO4	Total
(e)	Cheese is often added to a white sauce. Suggest two other ingredients that could be added to flavour a white sauce. Award 1 mark for each correct response. • Herbs /parsley – any suitable • Mustard • Onion • Nutmeg • Mushrooms • bacon pieces/chorizo/lardons • Prawns/ shrimp • Sugar • Brandy / wine / sherry / vodka • Cream/crème fraiche • garlic • Specific named salt/different flavoured salts – chili salt • Spices – chilli, paprika • Peppercorns • Egg yolks / Egg • Chocolate / cocoa powder • Vanilla • lemon Do not accept • salt and pepper as these are standard ingredients for seasoning • Just vegetables Credit any other suitable response.	2	2			2
	Total for Q1					12

SECTION B

Question	Answer	Mark	AO1	AO2	AO4	Total
2. (a)	Name three bacteria that could cause food poisoning. Award 1 mark for each correct response. • Salmonella • Campylobacter • Listeria • E-coli • Staphylococcus aureus / Staph (this year only!) • Clostridium perfringens • Bacillus cereus • Shigella Credit any other suitable response. Credit even if spelling is incorrect as long as you know what they mean.	3	3			3
(b)	Identify two symptoms of food poisoning. Award 1 mark for each correct symptom: • Sickness/vomiting/nausea • Diarrhoea • Fatigue/tiredness/ Dizziness / feeling faint • Abdominal/stomach pains. Stomachache • Fever/high temperature • Headache • Body aching – back / whole body • Loss of appetite / No appetite Credit even if spelling is incorrect as long as you know what they mean Credit any other suitable response.	2	2			2
(c)	Bacterial Activity occurs at different temperatures. Complete the table by placing a tick (✓) in the correct box to show which are true or false Award 1 mark for each correct response: (i) True (ii) False (iii) True	3	3			3

Question	Answer	Mark	AO1	AO2	AO4	Total
(d)	Explain how the following microorganisms are used in the food industry (i) Yeast (ii) Mould Award 1 mark for a basic explanation of how each micro-organisms are used in the food industry Award 2 marks for a more detailed explanation of how each micro-organisms are used in the food industry (2 x 2) Answers could include: Yeast • Used in bread making to make the bread rise • Gives off CO₂ gas and encourages dough to rise • Fermentation – wine making • Used in brewing – beer making • Used in marmite Mould • Used in cheese making: blue/veined soft and hard cheese • Adds flavour to the cheese* • Changes appearance of the cheese • Moulds in blue cheese are not harmful • Adds texture to the cheese *If cheese is named that would be classified as a more detailed response, but candidates do not have to name the cheese to access 2 marks as long as description is there Credit any other valid response.	4		4		4
	Total marks for Q2		7	4		12

Question	Answer	Mark	AO1	AO2	AO4	Total
3. (a)	Name the type of heat transference for each method of cooking shown below Award 1 mark for each correct method of heat transfer (i) Boiling: Conduction or convection (ii) Roasting: Convection or conduction (iii) Grilling: Radiation / infra-red radiation	3	3			3
(b)	State two advantages of steaming green vegetables. Award 1 mark for each correct response. • Vitamin loss of green vegetables is limited as vegetables not submerged in water • Vegetables retain crunch / improved texture/not soggy • Retains original colour • If electric steamer is used it may have a timer which can allow for accurate cooking • Vegetables can be stacked if an electric steamer is used or stacking pans saves electric • Liquid can be collected and used another time or in a sauce • Retains Flavour/taste/fresh taste Credit any other valid response.	2	2			2
(c)	Give two reasons why grilling is a healthier method of cooking than frying. Award 1 mark for each correct response: • less fat - Fat can drip through grill and drain away from the food • Frying food absorbs fat food doesn't sit / is cooked in the fat • No need to add fat / oil / no extra fat / calories • Minerals/vitamins retained in vegetables • Meat retains more of B group vitamins Credit any other suitable response.	2	2			2
	Total marks for question 3		3	4		7

Question	Answer	Mark	AO1	AO2	AO4	Total
4. (a)	Give two reasons why food is packaged. Award 1 mark for each correct reason Hygiene / Preservation • Stops food from decay/deterioration/going bad/ prevents contamination Lasts longer/extends shelf life / keeps food fresh keeps it safe to eat / To keep it air-tight • Prevents cross contamination /keeps germs away/ / prevents transference of bacteria to other foods Spillage • To retain its shape Holds it together/ keeps contents intact • As form of advertising/information giving eg. Nutritional information – traffic lights, best before dates • Ease of transportation – to shop and home • Ease of storage shop and home • Protection – to avoid damage to the product /Makes it tamper proof • Prevents certain foods becoming stale and dry Credit any other suitable response.	2	2			2
(b)	Evaluate the use of the following types of packaging. Award up to 4 marks 2 x 2 marks Indicative content Answers could include: (i) MAP – modified atmosphere packaging • The gas content within the packaging is changed, which slows the growth of bacteria and microorganisms • Plastic – environment • Lightweight • Malleable – shape, size • Transparent • Can be printed on • Also known as CAP Controlled Atmosphere Packaging: Sealed packs with gases • Good for Perishable Foods	4	2		2	4

Question	Answer	Mark	AO1	AO2	AO4	Total
	(ii) Canning • Food is sealed in a can • The cans are heated to a high temperature which sterilizes the food • Extended shelf life • Recyclable- Reusable – Better for environment • Easily damaged/dented • Heavy to carry – bulky • Easy to store/stack • Air tight • Won't leak Credit any other valid response.					

Band	AO1 Maximum 2 marks	AO4 Maximum 2 marks
2	Award 2 marks for a good response which shows some knowledge and understanding of how the different types of food packaging	Award 2 marks for a good response that evaluates the use of the food packaging
1	Award 1 mark for a basic response that shows limited knowledge and understanding of how the different types of food packaging.	Award 1 mark for a response that shows some attempt to evaluate the use of food packaging
0	Award 0 marks Not credit worthy or not attempted.	Award 0 marks Not credit worthy or not attempted.

Question	Answer	Mark	AO1	AO2	AO4	Total
4. (c)	Name three pieces of information that must be included on a food label. Award 1 mark for correctly identifying 3 pieces of the following information. • Name and description of the food • Quantity – List of ingredients in weight descending order • Date code – best before / use by date • Storage conditions • Weight / volume / quantity • Country / Place of origin • Name & address of manufacturer • Any special cooking instructions – cooking instructions (if necessary) • Allergy / dietary advice – warnings • Nutritional information (linked to health claims) traffic lights • Batch code / lot number • Special instructions e.g. this product has previously been frozen do not re-freeze. Credit any other suitable response.	3	3			3
	Total for question 4	9	7		2	9

Question	Answer	Mark	AO1	AO2	AO4	Total
5. (a)	Milk can be purchased in different forms. Describe the differences between the following types of milk Award up to 6 marks Answers may refer to: Pasteurised milk • Milk is heated to 75°C (for 25 seconds) and rapidly cooled to 5°C / 72°C for 15 secs • Destroys bacteria without affecting flavour • Gives the milk a longer shelf life • The milk is then placed into sealed containers • Glass bottles or plastic • Available from milk banks / milk sheds / shops U.H.T milk • UHT is a type of milk that is exposed to temperatures of 135°C in order to kill off harmful bacteria. 132°C for 1 min • Packed into sterile containers which are stored at room temperature • Once opened it must be treated as fresh milk. • Cartons / individual cartons in hotels • Good for the store cupboard / camping caravanning / older people • Can be non- dairy options Dried milk • Powder form • Last longer • Individual sachets • Lower in fat • Doesn't need to be stored in a fridge • Good to keep in the store cupboard / camping caravanning • Pre-concentrated / evaporated/ homogenised • Add to other ingredients to enrich recipes Credit any other valid response.	6		6		6

Band	AO2
3	Award 5-6 marks for an excellent answer which shows in depth application of knowledge and understanding of the difference between the different types of milk.
2	Award 3-4 marks for a good response which shows mostly clear knowledge and understanding of the differences between the different types of milk.
1	Award 1-2 marks for a basic response that shows limited knowledge and understanding of the differences between the different types of milk.
0	Award 0 marks not credit worthy or not attempted.

Question	Answer	Mark	AO1	AO2	AO4	Total
(b)	Explain the importance of dairy products in the daily diet of young children. Award up to 6 marks. Indicative content Answers could include: • HBV protein essential for healthy growth and development of muscles • Calcium essential for healthy teeth • Calcium essential for healthy bone development in children • Children should drink whole milk /have whole milk products which provides fat /calories • Lactose in dairy products provide - carbohydrates • Water soluble B vitamins • Vitamins A and D • Phosphorus • Potassium • Many dairy foods have less fat options for calorie controlled diet (if required- childhood obesity) • Avoids malnutrition – osteoporosis / brittle bones / rickets • Provides fat for energy etc. • Useful as snacks eg. Yoghurts Credit any other valid response.	6		3	3	6
Total mark for question 5				9	3	12

Band	AO2 Maximum 3 marks	AO4 Maximum 3 marks
3	Award 3 marks for an excellent response showing application of nutritional knowledge of dairy foods in a young child's diet.	Award 3 marks for an excellent explanation of the importance of dairy products in the daily diet of young children. Response may include examples to quantify response.
2	Award 2 marks for a good response showing application of nutritional knowledge of dairy foods in a young child's diet.	Award 2 marks for a good explanation of the importance of dairy products in the daily diet of young children. One or two examples may be included to quantify response.
1	Award 1 mark for a basic response that includes little understanding of nutritional knowledge of dairy foods in a young child's diet.	Award 1 mark for showing little or limited explanation of importance of dairy products in the daily diet of young children.
0	Award 0 marks not credit worthy or not attempted.	Award 0 marks not credit worthy or not attempted.

Question	Answer	Mark	AO1	AO2	AO4	Total
6. (a)	Many factors can influence food choice. (a) Discuss how different types of advertising can influence food choice. Award up to 6 marks Indicative content Answers could include: Advertising- Types of • Magazine • TV • Internet • Mobile phone apps • Social media • Email offers • Shop windows- • Billboards • On public transport • Cinemas • Leaflets • Celebrity endorsement • Music to encourage spending • Time of year • Occasion How • Free taster and samples in supermarkets • Product placement in supermarket • Special offers in supermarkets / on line • Meal deals • BOGOF/three for two • Loss leaders • Promotes / targets certain types of families/role models • Psychology of advertising • Media pressure/ peer pressure • Trend setting • Number of offers • Delivery service offered Responses could be positive or negative e.g. Crisps Gary Lineker suggests healthy when not. Credit any other valid response.	6		6		6

Band	AO2
3	Award 5-6 marks for an excellent response which shows in depth application of knowledge and understanding of the ways in which advertising and marketing can influence consumers. Excellent use of correct terminology and a balance of both advertising and marketing points have been included in the response.
2	Award 3-4 marks for a good response which shows some knowledge and understanding of the ways in which advertising and marketing influences consumers. Some use of correct terminology, balanced answer.
1	Award 1-2 marks for a basic response that shows limited knowledge and understanding that includes some basic reference to advertising and marketing. Basic use of correct terminology.
0	Award 0 marks not credit worthy or not attempted.

Question	Answer	Mark	AO1	AO2	AO4	Total
6. (b)	Assess reasons why some children in Wales are living in households experiencing food poverty. Award up to 4 marks. Indicative content Answers could include: • Food prices in Wales are increasing: could link to current situation in Ukraine, Brexit and price increases • Global food prices affecting local prices • Household bills increasing so less money to spend on food – “heat” or “eat”. • Families are relying more on food banks • Change in shopping trends and habits • More families buying too much and wasting food • Increase in fuel and other living costs, less to spend on food • Unemployment – link to Covid, furlough schemes • Limited disposable income • Mis-management of money • Lack of cooking skills so over reliance on take-aways, ready meals • Convenience over knowledge so money not apportioned as required • Rural areas – may be difficult to access some places • Choice in local shops may be limited/no money to travel to supermarkets • Rural - Food can be more expensive in local/village shops than in supermarket • Fuel prices increasing prices of food in the shops • Petrol prices – for people to go to shops – may have to shop local / public transport costs increase • Increase in size of families / blended families / extended families etc. • Single parent – only one income into the household Credit any other valid response.	4			4	4
	Total marks for question 6					10

Band	AO4
3	Award 4 marks for an excellent response that clearly assesses the reasons why some children are living in households experiencing food poverty.
2	Award 2-3 marks for a good response that gives some assessment of the reasons why some children are living in households experiencing food poverty.
1	Award 1 mark for a basic response that gives limited assessment of the reasons why some children are living in households experiencing food poverty.
0	Award 0 marks not credit worthy or not attempted.

Question	Answer	Mark	AO1	AO2	AO4	Total
7.(a)	State two reasons why someone may choose to follow a vegan diet. Award 1 mark per point Answers could include: Reasons • Religion Morals /ethical • Health – some people believe that vegetarian diets are healthier Reduced fat / less risk of heart problems/ high cholesterol • Less meat consumed is better for the environment and global warming issues • Animal welfare Morals /ethical • Taste – some people do not like the taste of meat • Following a trend Follow friends / think it's a better lifestyle • Cost – meat, fish, poultry and dairy can be an expensive protein source • Safer – less risk of food poisoning, eat less high-risk foods Credit any other valid response.			2		2
(b)	Discuss ways in which a vegan can achieve a balanced diet. Award up to 6 marks. Answers could include: Balanced diet • HBV protein vegetarians need to make sure they are getting enough protein from meat substitutes such as soya, quinoa, lentils, mycoprotein • Make good use of Vegan protein shakes / protein bars and protein balls • Complimentary proteins • Iron from red meat can be provided by green leafy vegetables and spinach. Iron deficiency anaemia • Vitamin C aids absorption of iron from vegetable sources • Calcium can be found in dairy free ingredients such as milk, yogurt, cheese • Vitamin B12 comes from dairy foods • Some foods are fortified to provide B12 • Including grains increases dietary fibre (NSP) intake • Nutritional Supplements to support food intake Credit any other valid response.			2	4	6
	Total marks for question 7			4	4	8

Band	AO2	AO4
2	Award 2 marks A good response showing clear knowledge and understanding of the ways in which a vegan can achieve a balanced diet.	Award 3-4 marks A well balanced good response that analyses the vegan diet and includes detailed reference to ways a vegan can achieve a balanced diet. Response demonstrates good analysis and evaluation related to some points (4) within the indicative content. Technical terms are used with ease and accuracy, and examples are included.
1	Award 1 mark A basic response showing clear knowledge and understanding of the ways in which a vegan can achieve a balanced diet.	Award 1-2 marks A basic / limited response that analyses how a vegan can achieve a balanced diet, may contain some examples
0	Award 0 marks Not credit worthy or not attempted.	Award 0 marks Not credit worthy or not attempted.

Question	Answer	Mark	AO1	AO2	AO4	Total
8.	Dylan is a 21-year-old student who enjoys an active lifestyle which includes playing rugby for a local team. Analyse Dylan's daily diet against his lifestyle needs and current dietary guidelines. Award up to 10 marks. Indicative content Answers could include: • Breakfast – Chocolate cereal is high in empty calories and sugar – Change for lower sugar variety e.g. porridge, Weetabix, Shredded Wheat – Breakfast cereal is fortified and can provide B vitamins – Semi skimmed milk contains calcium, protein and fat. – He could change to a lower fat version e.g. skimmed milk – White toast provides carbohydrates for energy – Butter high in saturated fats- could be swapped to lower fat spread – Change the toast for piece of fruit – Take out the jam or use a low sugar version • Snacks – Sausage roll is high in calories and fat – Apple counts towards 1 of his 5 a day providing some dietary fibre – Small bottle water provides a small percentage of his recorded daily water intakes • Lunch – Takeaway burger and fries is an unhealthy choice and high in calories, fat and salt. He would get protein from the beef and carbohydrate from the bread bun and some from the potato fries • Evening meal – Chicken curry providing protein, carbohydrates from the rice and bread – High sugary drink			3	7	10

Question	Answer	Mark	AO1	AO2	AO4	Total
	• Overall the diet is lacking in fruit and vegetables • He is lacking in a balance of the eat well guide • High amounts of sugar putting him at risk of diet related diseases such as diabetes • Lacking in omega 3 • Lacking in wholegrain and foods high in dietary fibre • High in cholesterol/salt-could result in heart problems /stroke • Change white to brown bread/ wholemeal/ half and half bread – increase fibre • Change to brown rice / wholemeal pasta • Needs more water /dehydrated Candidates may exemplify points giving examples of alternative foods. Credit any other valid response.					
	Total marks for question 8	10		3	7	10

Band	AO2 Maximum 3 marks	AO4 Maximum 7 marks
3	Award 3 marks A well-balanced excellent answer showing thorough knowledge and understanding of the dietary needs of Dylan. Response demonstrates good application of knowledge related to some points (2-3) included in the indicative content. Technical terms are used with some accuracy.	Award 5-7 marks A well-balanced excellent answer and evaluating the dietary needs of Dylan against lifestyle choices. Response demonstrates excellent analysis and evaluation related to the majority of points (4-5) within the indicative content. Technical terms are used with high degree of accuracy.
2	Award 2 marks A fairly well-balanced answer showing good knowledge and understanding of the dietary needs of Dylan. Response demonstrates good application of knowledge related to some points (1-2) included in the indicative content. Technical terms are used with some accuracy.	Award 3-4 marks A fairly well-balanced answer evaluating the dietary needs of Dylan against lifestyle choices. Response demonstrates excellent analysis and evaluation related to the majority of points (3) within the indicative content. Technical terms are used with ease and accuracy.
1	Award 1 mark Some demonstration of knowledge and understanding with reference to the dietary guidelines and dietary needs of Dylan. Limited use of technical terms.	Award 1-2 marks Some analysis and evaluation with reference to the dietary needs of Dylan against lifestyle choices. Assessments may lack accuracy. Limited use of technical terms.
0	Award 0 marks not credit worthy or not attempted.	Award 0 marks not credit worthy or not attempted.

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