SPECIMEN MATERIAL

GCSE
FOOD PREPARATION AND NUTRITION
SPECIMEN

Mark scheme

2016

1.0

This mark scheme is intended as a guide to the responses expected but is not intended to be exhaustive or prescriptive. If students offer alternative responses which are equally valid **then full credit must be given.** Outcomes will closely relate to the assessment objectives (AO1, 2 and 4) and grade descriptors for this specification. Assessment objectives linked to each question are shown within the mark scheme.

The level descriptors below are intended to be a guide when assessing the quality and levels of response.

High	Students will demonstrate a detailed knowledge and understanding by recall and application of the key concepts and principles related to food preparation and nutrition. (AO1) There will be accurate application of relevant knowledge and relevant examples will be given showing clarity of understanding. Responses will include detailed factual explanations and frequent qualified answers. (AO2) Responses will show the ability to plan, review, analyse and evaluate different aspects of food preparation and nutrition, making reasoned judgements and presenting substantiated conclusions about food made by themselves and others. (AO4) Work will show accuracy and use a range of specialist terminology correctly.
Intermediate	Students will demonstrate sound knowledge and understanding by recall and application of most key concepts and principles related to food preparation and nutrition. (AO1) There will be some application of knowledge and appropriate examples will be given, showing a grasp of most aspects but some areas may lack clarity. Responses will include factual responses which include some explanation and qualified answers. (AO2) Responses will show the ability to plan, review, analyse and evaluate aspects of food preparation and nutrition. Students will make appropriate links and draw conclusions about food made by themselves and others (AO4). Work will include the occasional inaccuracy but will use most specialist terminology correctly.
Low	Students will demonstrate sound knowledge and understanding by recall and application of some key concepts and principles related to food preparation and nutrition. (AO1) There will be limited application of knowledge and few examples will be given, showing a grasp of some aspects but some areas may lack clarity. Responses will include basic responses which include some basic and few qualified answers. (AO2) Responses will show a limited ability to plan, review, analyse and evaluate aspects of food preparation and nutrition, will make basic links and may draw conclusions about food made by themselves and others (AO4) Work will include the occasional inaccuracy but will use some specialist terminology correctly.

	Section A		
Question	**Answer Key**	**Assessment Objective**	**Total marks**
1.1	**C** The baked beans provide the most dietary fibre content. (50g portions provide the following dietary fibre content: cheese 0.0g, marmalade 0.15g, **beans 1.85g**, grilled tomatoes 0.75g *Ref: Explore food BNF Database.)*	**AO1**	**1**
1.2	**A** The cheese provides the most saturated fat content. (50g portions provide the following saturated fat content: **cheese 10.84g**, marmalade 0.0g, beans 0.05g, grilled tomatoes 0.55g *Ref: Explore food BNF Database.)*	**AO1**	**1**
1.3	**D** The tomatoes provide the most vitamin C content. Vitamin C content in some of the foods will have been lost during heat processing eg orange marmalade. (50g portions provide the following vitamin C content: cheese trace, marmalade 5mg, beans trace, **grilled tomatoes 9.5mg** *Ref: Explore food BNF Database.)*	**AO1**	**1**
1.4	**C** Baked beans on toast is the best example of protein complementation with the essential amino acids in these foods working together. Although marmalade and tomatoes may contain small amounts of essential amino acids, beans provide the most substantial amount making it a viable partner to the amino acids in the bread. Cheese is not relevant as this is a HBV protein and contains all the essential amino acids.	**AO1**	**1**
2.1	**D** The correct temperature for a domestic freezer is -18c Industrial freezers are much lower.	**AO1**	**1**
2.2	**C** Uncooked meat must be stored covered on the bottom shelf. This is to prevent any cross contamination from juices/blood dripping onto or coming into contact with other foods. If left uncovered or above other foods cross contamination is more likely.	**AO1**	**1**
2.3	**A** Most bacteria become active when food is defrosted	**AO1**	**1**
2.4	**C** Most high risk foods are high in protein and high in moisture	**AO1**	**1**

3.1	**B** Gluten is the protein in flour**.**	**AO1**	**1**
3.2	**D** Strong plain flour has the highest gluten content. Most flours will have some gluten content but the question asks for the 'highest' content.	**AO1**	**1**
3.3	**A** Salt is mainly used to improve the flavour of bread. It does not add colour, sugar feeds the yeast and salt strengthens gluten.	**AO1**	**1**
3.4	**B** Carbon dioxide is released when yeast is activated.	**AO1**	**1**
4.1	**B** Wheat is the only primary source of food The others foods have all undergone some secondary processing**.**	**AO1**	**1**
4.2	**C** Cheese is the only food mentioned that has undergone secondary processing (Made from milk) All other foods are primary sources in their natural state.	**AO1**	**1**
4.3	**D** Fruit and vegetables grown without the use of artificial fertilisers are called organic**.** Free range relates to animals and dairy farming not fruit and vegetables, fortified is linked to added nutrients not fertilisers and genetically modified relates to modification of the foods' DNA.	**AO1**	**1**
4.4	**C** The tub of prawn salad is the only fresh food included here and therefore would display a 'Use by date'	**AO1**	**1**
5.1	**C** Lactose intolerance is linked to dairy foods. Lactose is the sugar found in milk.	**AO1**	**1**
5.2	**B** The weight of the food is the only information in the list of possible answers that is compulsory on a food label and required by law.	**AO1**	**1**
5.3	**D** Almonds (nuts) are classed as a major food allergen and appear on the list of 14 main allergens *(Ref: Food Standards Agency)* Onions may cause watery eyes but this is not an allergic reaction. It is unusual for people to have allergic reaction to chicken or bananas.	**AO1**	**1**
5.4	**C** The difference test is the only test that identifies an 'odd one out'	**AO1**	**1**
Total			**20**

<table>
<tr><th colspan="4">Section B</th></tr>
<tr><th>Qu</th><th>Part</th><th>Marking guidance</th><th>Total marks</th></tr>
<tr><td>6</td><td>1</td><td>
Explain how the macronutrient content of the packed lunch provides Joe with energy.
This question is assessed against AO2.
Students will apply their knowledge of nutrition to the given packed lunch.

<table>
<tr><td>Response applies knowledge and understanding of energy sources in the packed lunch. Answer identifies the three energy giving macronutrients and gives further factual details for each eg response will include reference to carbohydrates and fats as main energy giving nutrients and protein as a secondary source and give correct information on food sources of these or may identify nutrient types such as sugars, starches or saturated/unsaturated fats.</td><td>5-6 marks</td></tr>
<tr><td>Response applies some knowledge of energy sources within the lunch. Answer identifies two or more energy giving macronutrients correctly and includes some further detail eg may correctly identify carbohydrates and fats as main energy giving macronutrients but omit proteins. Some correct food sources or examples of the macronutrient types will be included.</td><td>3-4 marks</td></tr>
<tr><td>One or more macronutrients or foods providing energy may be identified but answer lacks any further detail and may have some omissions and inaccuracies</td><td>1-2 marks</td></tr>
<tr><td>No answer worthy of credit</td><td>0 marks</td></tr>
</table>

Indicative content:

The following three energy giving macronutrients are identified:

1. Carbohydrates

Carbohydrates are present within the packed lunch in the form of starch and sugars. Specifically they will be provided from the white bread, the chocolate biscuit and the salt and vinegar crisps, as well as the high sugar content in the sweet orange drink. Energy may be released in different ways depending upon the type of food. In this particular instance there will be a slow release of energy from the bread and a quick release of energy from the drink and biscuit.
</td><td>6 marks</td></tr>
</table>

		2. Fat Present within the packed lunch in the form of saturated and unsaturated fats. Specifically provided from the butter, chocolate biscuit, cheese and salt and vinegar crisps. 3. Protein Protein is a secondary source of energy and is available in the cheese. The main function of protein is growth and repair but when other sources of energy are low it will provide the extra energy needed. Any other relevant and correct response can be credited.	

6	2	Childhood obesity is increasing in Britain and has been linked to an unhealthy diet. Assess the various factors which contribute to childhood obesity and explain how an unhealthy diet in childhood may put future health at risk. This question is assessed against AO4. Students must analyse the factors contributing towards childhood obesity and evaluate the impact of unhealthy diet in childhood on future health.	**12 marks**

Responses will include accurate and detailed factual explanations showing thorough knowledge of nutritional issues linked closely to the indicative content. Appropriate and accurate use of specialist terminology. There will be a good balance between analysis and evaluation. **Analysis** is excellent and accurately identifies and describes three to four factors which contribute to childhood obesity. Makes reference to the impact of several unhealthy dietary options which do not reflect current government guidelines. **Evaluation** will make sound judgements, linking the choice of dietary options in childhood to at least three future health risks.	9-12 marks
Responses will be mainly accurate with some factual explanations showing good knowledge of nutritional issues linked to the indicative content. Appropriate and good use of specialist terminology. There will be a reasonable balance between analysis and evaluation. **Analysis** is good and identifies and describes at least two factors which contribute to childhood obesity. Makes some reference to dietary options which do not reflect current government guidelines. **Evaluation** will make some judgements, linking the choice of dietary options in childhood to at least two future health risks.	5-8 marks
Responses will include limited factual explanations showing basic knowledge of nutritional issues linked to the indicative content. There may be a limited attempt at using specialist terminology. There may be an imbalance between analysis and evaluation where one aspect may be omitted or stronger. **Analysis** is limited and identifies one to two factors, with minimal or no description, which contribute to childhood obesity. Little or no reference to dietary options. **Evaluation** will make limited judgements with little attempt to link dietary options in childhood to no more than one future health risk.	1-4 marks
No answer worthy of credit.	0 marks

		Indicative content: **Key factors contributing towards childhood obesity:** A recognition that, in addition to an unhealthy diet, there are several factors that often work together to contribute to childhood obesity and increase future health risks. These are some possible responses, but other relevant factors should be rewarded as appropriate: • Lack of physical activity; for example, poor exercise regime, sedentary lifestyle leading to imbalance of calorie intake/output. • Environmental influences; for example, food stores stocked with sweet/unhealthy snacks/drinks readily available, inappropriate eating patterns established at an early age, inappropriate sleep patterns established leading to fatigue having an effect upon appetite. • Psychological influences; for example, may use eating as a coping mechanism for dealing with emotional problems, such as family break-up, etc • Genetics; for example, family history of overweight people due to genetic reasons, family history of medical conditions. • Socio-economic issues; for example, low income backgrounds, lack of time, resources, knowledge, skills, reliance on fast foods, parents working and effect of each of these on food choices. A recognition of nutritional issues and that there are unhealthy dietary options which do not reflect current government dietary guidelines, such as the Eatwell plate. • **Eat less fat** • **Eat less sugar** • **Eat less salt** • **Eat more fruit and vegetables** • **Drink plenty of water** • **Base meals around starchy foods** And how not following these guidelines and having an unhealthy diet in childhood may put future health at risk, for example: • Sugar content of meals: risks of obesity, type 2 diabetes • Fat/sugar: risks of CHD /Strokes • Salt content: high blood pressure • Fat: high levels may lead to obesity/risk of type 2 diabetes	

		• Energy content: If energy balance is not correct, could be in danger of weight gain. • Starch content: Too many quick release carbohydrates not healthy may lead to obesity and associated conditions. • Need more wholegrain products and fruit and vegetables to provide dietary fibre. Lack of dietary fibre may lead to digestive problems, constipation, diverticulosis, cancer of the bowel. • Other correct relevant responses.	

6	3	Describe a breakfast that would supply the micronutrients needed for good dental health in young children. Give reasons for your choice. This question is assessed against AO2.	**2 x 3 marks**

Description of breakfast is detailed and suitable for young children. Reasons for choice identify at least two micronutrients needed for good dental health and link these correctly to the foods and/or specific functions. For example: boiled eggs with wholemeal bread fingers. Calcium found in wholemeal bread, Vitamin D found in the egg helps the calcium be absorbed. (Descriptive breakfast, two micronutrients correctly linked to food sources and functions)	5-6 marks
Description of breakfast has some detail and is suitable for young children. Reasons for choice identify one or more micronutrients needed for good dental health and may link these correctly to the foods/specific functions. Answer may include some generic, repeated or incorrect information. For example: boiled eggs and buttered bread fingers provides calcium and Vitamin D (No specific link between sources and micronutrients but includes elements of suitable foods and relevant micronutrients)	3-4 marks
Description of breakfast lacks detail or suitability. Reasons for choice identifies one micronutrient needed for good dental health and may attempt to link these to the foods used. Some responses may be incorrect. For example: Eggs and glass of milk providing calcium. (Lacks detail but shows some understanding. No specific links between foods and nutrients)	1-2 marks
No answer worthy of credit	0 marks

Indicative content:
Students must apply their knowledge of healthy eating to the nutritional needs of childhood to select and justify breakfast items that include micronutrients that support good dental health.

Breakfast items must be described for the award of credit so generic terms alone eg bread, cereals, fruit, vegetables, eggs are not acceptable for higher mark bands where more detail is needed eg cereals with milk, natural unsweetened orange juice, boiled/scrambled eggs, white/wholemeal toast with butter/soft spread, fruit yoghurts.

Micronutrients and reasons for choice related to supporting good dental health may relate to:

Calcium

- helps to harden, strengthen and maintain teeth

		• children need 500mg calcium a day • good sources include: milk, cheese, white/wholemeal bread/cereals, yoghurt, soya, tofu, beans, oranges **Vitamin D (cholecalciferol)** • to ensure calcium and phosphorus can be absorbed in the body • good sources include fortified milk, eggs, cheese, fortified cereal, butter, cream **Phosphorus** • found in most natural foods **Vitamin C** • Studies have indicated that consuming foods rich in vitamin C may help to prevent bone loss. • Sources include citrus fruit, such as oranges and grapefruit, strawberries, kiwi fruit and mango. **Vitamin B12** • Studies have found a link between vitamin B12 levels, bone density later in life and osteoporosis. • Good sources of B12 include seafood such as salmon, haddock, and canned tuna, as well as milk, yogurt, eggs, and cheese. Any other relevant and correct response can be credited.	

<table>
<tr>
<td>6</td>
<td>4</td>
<td>
All life stages have different nutritional needs.
Describe the different nutritional needs to be considered when planning meals for:

Teenagers
The elderly

This question is assessed against AO2.

Students will apply their knowledge of the relationship between diet, nutrition and health to each of the stated life stages. For each of the stated life stages, the marks should be awarded as follows:
<table>
<tr><td>Response shows thorough application of knowledge and understanding of nutritional needs of the life stage.
Response will include at least two detailed, factually correct explanations and qualified answers; for example, teenagers need protein for growth and repair because it is a time of rapid growth spurts, particularly for boys who become more muscular.
Specialist terminology is used appropriately.</td><td>3-4 marks</td></tr>
<tr><td>Responses show some application of knowledge and understanding of nutritional needs of the life stage.
Response will include at least one factually correct explanation but this may not be qualified; for example, teenagers need protein for growth and repair.
Specialist terminology is used appropriately.</td><td>1-2 marks</td></tr>
<tr><td>No answer worthy of credit</td><td>0 marks</td></tr>
</table>

Indicative content:
Special dietary needs must be qualified to life stage needs for award of credit.
Teenagers:

Rapid growth spurts - need protein, energy rich foods, calcium, phosphorus and Vitamin D
Vitamin B group to release energy from carbohydrates.
Hormone development may cause skin problems - vitamin B2, C and E rich foods needed
Boys: growth and muscular tissue, development – more protein
Girls: more protein for growth spurts/development
Girls: menstruation – iron rich foods, / vitamin C for the absorption of iron- to prevent anaemia
Setting good eating habits for future life stages. Eg Calcium, Vitamin D for absorption of calcium – for healthy bone development/ teenage years form peak bone mass.

</td>
<td>2 x 4 marks</td>
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</table>

		• Any other correct relevant responses should be given credit. **Elderly:** • Weight management – to avoid health risks associated with unhealthy weight. Eg CHD • Decline in immunity/cognitive /mobility – need for range of nutrients to support this. Omega 3 fatty acids • Osteoporosis post menopause – oestrogen to protect bone health- calcium/phosphorus/vitamin D • Include Vitamin B12 and folates - lack of these linked to Alzheimers, memory loss and heart disease. • Digestive function eg constipation – ensure high fibre in diet -cereal foods • Reduce salt intake - links to CHD, blood pressure problems • Ensure food supplements not used to replace real foods • Less mobile/active therefore may need to take care with energy balance • Include the antioxidant vitamins A, C and E may help to prevent cancer and heart disease • Include vitamin C and iron to prevent iron deficiency anaemia. • Any other correct relevant responses should be given credit.	

<table>
<tr>
<td>7</td>
<td>1</td>
<td>Which herbs and spices are used in this recipe?
Give one example of each.

This question is assessed against AO1.
Students will identify and name appropriate food items.

1 mark for correctly naming a spice used. i.e. cumin
1 mark for naming an herb used. i.e. parsley or coriander
Note: Garlic is NOT a spice but classed as a vegetable.</td>
<td>2 marks</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>Explain why this dish is not suitable for vegans.

This question is assessed against AO1.

Students will show knowledge and understanding of the principle of the vegan diet and apply this to the given recipe.
<table>
<tr><td>Responses show good knowledge of the term vegan with some qualification. At least two of following responses will be included.
• Vegans do not eat any products from animals
• There are eggs in the recipe
• Vegans do not eat eggs</td><td>2 marks</td></tr>
<tr><td>Responses show limited knowledge of the term ‘vegan’
One of the following responses given:
• Vegans do not eat any products from animals
• There are eggs in the recipe
• Vegans do not eat eggs</td><td>1 mark</td></tr>
<tr><td>No answer worthy of credit</td><td>0 marks</td></tr>
</table>
</td>
<td>2 marks</td>
</tr>
</table>

7	3	Explain how heat is transferred in: • Step 1: shallow fry the onion and garlic • Step 6: grill the burgers for 4 minutes on each side. This question is assessed against AO1. Students will recall and relate knowledge and understanding of heat transfer methods to the given recipe. 3 marks awarded for each section are given as follows:	**2 x 3 marks**

Response identifies the correct method with a full and comprehensive explanation of heat transfer.	3 marks
Response identifies correct method and a good explanation of heat transfer is given.	2 marks
Response identifies correct method of heat transfer, explanation of how this is carried out is basic.	1 mark
Incorrect method or no specific method identified	0 marks

Step 1: Shallow frying the onion and garlic:

- The method of heat transfer is conduction
- This is the direct movement of heat from one object to another.
- The flat base of the pan is heated on the hob and heat is conducted to the pan
- In turn the pan conducts heat to the shallow fat and to food lying in the pan.
- Metal pans are good conductors of heat.
- Conduction is a slow method of heat transfer.
- Molecules on the outside of the food move, producing heat and conduct the heat to molecules inside.
- Food cooked by conduction cooks from outside in, outside may brown but inside may still be uncooked.

Step 6: Grilling the burgers for 4 minutes on each side.

- The method of heat transfer is radiation
- Heat energy is directly transferred by waves of heat hitting the food
- Grill elements when heated glow red
- Heat waves radiate/strike directly onto the food
- Radiant heat waves travel at the speed of light
- Food cooked by radiation does not need direct contact with food.
- Heat also transferred directly onto food by infrared rays from the heat source.

7	4	The table below shows dishes that use eggs as an ingredient. For each dish name and describe **one** function of the eggs. Do not repeat the function or the example given. This question is assessed against AO2. Students will apply their knowledge and understanding of working characteristics and functions of ingredients to the specified dishes. In each section:	**2x3 marks**

Response identifies correct function and a detailed description. eg: The egg coagulates. This means that when the mixture is heated, the protein in the egg sets the mixture. The function is not repeated.	3 marks
Response identifies correct function and a simplistic description. eg: The egg coagulates and sets the mixture when heated. The function is not repeated.	2 marks
Response identifies correct function but description may be incorrect or omitted. eg: the egg sets. The function is not repeated.	1 mark
No answer worthy of credit	0 marks

Do not award any marks if an incorrect function is provided, even if description is relevant to that function.

Indicative content:

Main meal dish	Description of the different functions of egg
Lemon meringue pie	**Functions:** Adds volume/aeration: (meringue) **Description**: • whisking traps air/creates a foam and mixture expands • meringue becomes a solid foam once baked • whisking denatures proteins in egg white • traps air which expands the egg white **Function:** Coagulation/setting: (lemon filling). Description: • thickening of filling • egg sets when heated • denaturing of protein
Fishcakes	**Function: Coating/binding:** (breadcrumb/batter

			coating) Description: • forms protective layer against heat, • with heat egg sets and • holds dry ingredients/breadcrumbs/batter in place **Function:** Coagulation/setting: (fishcake filling). **Description:** • thickening of filling • egg sets when heated, holding ingredients together • denaturing of protein **Function:** Enriching Description: • addition of eggs to increase the nutritive value of the dish eg protein content.	

8	1	Using examples of seasonal foods from the chart above suggest ways in which families can reduce food wastage when buying, preparing and cooking food. This question is assessed against AO2. Students will demonstrate their understanding of food wastage in a household context.	**10 marks**

Response shows thorough knowledge and understanding of seasonal foods and food wastage in the home. Answer gives several detailed reasons that cover buying, preparing and cooking of food along with at least two relevant examples including foods from the chart.	9-10 marks
Response shows good knowledge and understanding of the foods and food wastage in the home and will correctly identify some links with buying, preparing and cooking foods. Response includes at least one relevant example from the chart.	6-8 marks
Response shows some knowledge and understanding of the foods and/or food wastage and may only refer to one or two of either buying, preparing or cooking food. There may be some inaccuracies or omissions.	3-5 marks
Response shows limited knowledge and understanding of the foods and/or food wastage and only makes reference to one of either buying, preparing or cooking food.	1-2 marks
No answer worthy of credit	0 marks

Indicative content:

Students will apply their knowledge and understanding of food wastage in the context of seasonal foods. Examples given may come from any of the seasonal food groups mentioned on the chart and reference should be made to buying, preparation and cooking in order to access the higher mark bands.

Buying food:

- Bulk purchase/impulse buying, so excess food is not stored or used but thrown away
- Media pressure – pressurised buying eg special offers on seasonal meats eg turkey at Christmas, lamb in the spring, salmon in season
- Not having enough suitable storage at home for foods bought eg freezer space so fresh food perishes eg surplus berries, runner beans from pick your own
- Shop around - think quality over quantity with fresh foods eg avoid buying overripe tomatoes

Preparing foods:

- Removing excessive amounts eg peeling potatoes too thickly
- Food stored for too long/prepared too early in advance – out of date, decay/spoilt eg cucumbers go mouldy
- Leftovers from plate cause wastage if not used for compost
- Part of the food is not eaten eg apple core, skin

		Cooking foods: • Spoiling foods through overcooking eg burnt roasted vegetables • Lack of culinary skills, poor time management eg overcooking of cabbage • Use vegetables nearing use by date by making into soups Other relevant and correct responses may be credited.	

8	2	What are the advantages of buying locally produced foods? This question is assessed against AO1. Students will apply their knowledge and understanding of using locally sourced foods. 1 mark for each correct response given either from the list below or for any other relevant responses worthy of credit. **Indicative content:** • May be more convenient in terms of customer accessibility. • Reliability - know where food has come from. • Cheaper if purchased direct from farm. • Likely to be fresher than shop bought. • Environmentally friendly eg lower CO^2 emissions, food miles reduced as there is less transportation. • Supports local business. Other relevant and correct responses may be credited.	**4 marks**

9		With reference to the ingredients and nutrient content of each of the soups, evaluate the suitability of these soups for people with Coronary Heart Disease (CHD). Give justified reasons for your choice. This question is assessed against AO4. Students will analyse the two recipes and evaluate the content of each recipe in consideration of health risks related to Coronary Heart Disease (CHD).	**8 marks**

Responses will include detailed factual explanations and qualified answers eg Soup A provides more energy (541kcal compared with 461kcal). This extra energy comes from more carbohydrate (vegetables in soup) and fat from butter. Excessive kcals are not suitable for someone with CHD as it may cause unnecessary weight gain so soup B will be a better choice. Answers use appropriate specialist terminology. There will be a good balance between analysis and evaluation. **Analysis:** Comparison of the soups is thorough and makes reference to at least 4 separate points relating to ingredients and/or nutrients referred to in the indicative content. **Evaluation**: Accurate conclusions are drawn which highlight elements required for a diet for someone with CHD and will identify soup B as the better choice with several relevant reasons and will link these to analysis/findings.	7-8 marks
Responses will include some detailed factual explanations and qualified answers eg Soup A provides more energy - 541kcal compared with 461kcal. This extra energy comes from a greater amount of carbohydrate and fats. Soup B would be a better choice for people with CHD as it will help them keep a healthy weight. Answers will use appropriate specialist terminology. Response may be stronger in either analysis or evaluation. **Analysis:** Good comparison of the soups makes reference to 2-3 separate points relating to ingredients and/or nutrients referred to in the indicative content. **Evaluation:** Accurate conclusions are drawn which highlight some points required for a diet for someone with CHD. Response will identify relevant reasons for correctly choosing soup B and may link these to analysis/ findings.	5-6 marks
Responses will include basic explanations eg Soup A provides more energy (541 kcal) compared to soup B with 461kcal so soup B would be the best choice. Answers use some appropriate specialist terminology. Analysis or evaluation may be omitted. **Analysis**: a basic comparison of the soups identifies 1 or 2 simple	3-4 marks

points relating to ingredients and/or nutrients. **Evaluation:** simple conclusions may be drawn which highlight requirements for a diet for someone with CHD. Soup B may be identified correctly but relevant reasons may be omitted or incorrect and not be linked to analysis/ findings.	
Response will be very limited eg Soup B is better than Soup A for someone with CHD. Answers show a basic level of knowledge and understanding. Analysis or evaluation may be omitted. **Analysis** is at a simplified level with little or no detail. **or** **Evaluation** will identify correct choice of soup with a basic reason.	1-2 marks
Nothing worthy of credit	0

Indicative content:
*responses are unlikely to give detailed data below, this is included for guidance only

Analysis:

Energy content:
- Soup A provides more energy (541 kcal) compared to Soup B (with 461kcal)
- Due to more carbohydrate and ingredients high in fat
- Energy will come from vegetables in each soup, fat and carbohydrate content of foods

Protein content:
- Soup A has less protein (14.4g) compared to Soup B (19.9g)
- Soup A contains bacon but this may be in smaller quantity. Soup B has good protein source from peas which are the largest ingredient

Carbohydrate content:
- Soup A has 58g compared to Soup B with 72g
- B may have larger quantity of starch based ingredients eg potatoes, peas
- These will link into the energy provided by the dish.

Fat content:
- Soup A has higher levels of saturated fat (29.5g) and unsaturated fat (15.3g) compared to
  Soup B which has less fat 12.3g and unsaturated 1.4g
- Soup A higher because of the use of double cream, bacon and butter
- Soup B lower in saturated fat and cholesterol because it has no added cream and use of sunflower oil.

Dietary fibre content;
- Soup A has 8.8 g compared to B 10.8g
- Indicates a larger proportion of fresh vegetables in B
- In B skins may have been left on potatoes as extra source of dietary fibre

		Sugar content: • Soup A has 3.43g compared to B, 5.2 g • B is higher due to natural sugar content of peas. Salt content: • Soup A has 2.46mg compared to B which has 0.86 • Both have natural salt from vegetable content. • Soup A higher due to use of stock cube and bacon • Soup B lower as fresh vegetable stock used instead of stock cube, flavour from mint **Evaluation**: • Soup B is the better choice for someone with CHD. Conclusions: reference will be made to the need for a diet that is: • low in fat • low in salt • both contributory nutrients in causing heart disease CHD Soup A • Saturated fat content is higher • This clogs the arteries and is not a good choice for someone with CHD • Higher energy content, carbohydrates, fats which in time could lead to weight gain /putting pressure on heart. Soup B • Has lower salt levels which is better to prevent high blood pressure which can lead to CHD • Also has higher protein which is needed for repair of body tissues, can be helpful in recovery from CHD	

10	1	The table below shows some problems seen when food is prepared. Complete the table to show two different causes of each problem. This question is assessed against AO2. Students will apply their knowledge and understanding of scientific principles to a range of given dishes. One mark is awarded for each cause that is identified, up to a maximum of two marks for each problem.	**2 x2 marks**

Problem	Causes
Choux pastry éclairs are flat after baking	• Insufficient cooking time. • Temperature of oven too low. • Incorrect proportion of liquid. Not enough to make steam. • Not enough beating to add air to mixture. • Ingredient missing eg eggs not added by mistake. • Disturbed during cooking (oven door opened). • Not split after cooking to let steam out. • Incorrect type of flour.
The oil and vinegar separate when making a mayonnaise	• Insufficient mixing time. • Oil added too quickly. • Emulsification (Lecithin in egg yolk) not taking place. • Left to stand for too long before use. • Proportions of ingredients are incorrect.

<table>
<tr>
<td>10</td>
<td>2</td>
<td>
Explain in detail how a temperature probe is used to check that cooked food is safe to eat.
This question is assessed against AO1.
Students will recall knowledge of use of a food probe.

<table>
<tr><td>Response shows thorough knowledge and understanding of the use of a temperature probe to check that cooked food is safe to eat. Answer should include reference to 4 or 5 points from the indicative content with several of these qualified.</td><td>5 – 6 marks</td></tr>
<tr><td>Response shows good knowledge and understanding of the use of a temperature probe to check that cooked food is safe to eat Response to include at least 3 points from indicative content with some qualification,</td><td>3 – 4 marks</td></tr>
<tr><td>Response shows limited knowledge and understanding of the use of a temperature probe to check that cooked food is safe to eat 1 – 2 points from indicative content covered with limited qualification.</td><td>1 – 2 marks</td></tr>
<tr><td>No answer worthy of credit</td><td>0 marks</td></tr>
</table>

• Sterilise before use/use antibacterial spray or wipes
• Clean after use with anti-bacterial cleanser. Use of antibacterial cleansers will help avoid cross contamination.
• Switch on.
• Insert probe into centre/core of food/thickest part of the food.
• Insert at an angle.
• Do not touch metal baking tin, bone or base with tip of probe.
• Leave probe in place until temperature stabilises.
• Temperature must reach 75C or more.
• It is only temperature which guarantees destruction of harmful bacteria in the food.
• Follow manufacturer’s instructions for use.
• Digital probes are run by battery – check battery is active and probe switched on/off as necessary.
• Do not use battery powered probes in oven or immerse in water.
• Do not place food probe into another food before cleaning with an anti-bacterial cleanser.
• If temperature not reached, repeat test.

Other relevant and correct responses may be credited.
</td>
<td>Max 6 marks</td>
</tr>
</table>

18 February 2016