



GCSE MARKING SCHEME

HOME ECONOMICS: FOOD AND NUTRITION

SUMMER 2013

INTRODUCTION

The marking scheme which follows was used by WJEC for the Summer 2013 examination in GCSE HOME ECONOMICS: FOOD AND NUTRITION. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conferences were held shortly after the papers were 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 conferences was to ensure that the marking schemes were 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' conferences, 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 HOME ECONOMICS: FOOD AND NUTRITION

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Q.1 Award **1 mark** for **each** correct name and **1 mark** for **each** suggested use. [4]

- (i) Sieve – Aeration of dry ingredient, to remove lumps from flour, draining liquids, rinsing, e.g. rice.
- (ii) Cooling rack/tray – To help air circulation, to cool down biscuits/cakes/pastry, etc. standing a hot pan/dish on – to cool.

Q.2 Award **1 mark** for **each** correct response. [3]

- (i) False
- (ii) True
- (iii) True

Q.3 (a) Award **1 mark** for **each** correct response. [2]

Reference could be made to:

- Bottling
- Freezing
- Drying
- Jam making/jellies
- Salting
- Smoking
- Spicing
- Pickling
- Vacuum packing

(b) Award **1 mark** for **each** correct response. [4]

- (i) 5°C
- (ii) 72°C
- (iii) 5°C, 63°C

Q.4 (a) Award **1 mark** for **each** correct response. [2]

Reference could be made to:

- Time Saving
- Energy Saving/economical to use
- Cooks Quickly/Efficiently
- Can save washing up as can use same dishes for cooking and serving
- Flavour Retention
- Colour Retention
- Water soluble or vitamins retained (do not need to be named)
- Can be used to defrost quickly/efficiently
- No need for hob
- A convenient method of steaming

(b) Award **1 mark** for **each** correct response. [3]

Reference could be made to:

- Can easily chop, liquidise, purée (weaning), grate, slice, shred (award 1 mark per process if qualified)
- One machine with various attachment can prepare a variety of dishes/products
- Very quick/easy to use (must be qualified for 1 mark for each)
- Dishwasher friendly/easy to clean/saves washing up – (e.g. compared to lots of chopping boards, bowls etc.)
- Can cope with large quantities (cooking in bulk)
- Can chop very finely – useful when preparing food for young babies/toddlers
- Can save time/more efficient
- Does not require skill to, e.g. rub in mixes, chop efficiently
- Safer than using a knife

Q.5 (a) Award **1 mark** for a relevant point. [1]

Reference could be made to:

- Links between salt and High Blood Pressure/HBP
- Significant risk factors in CHD
- Government Reports highlight need for reduction in salt (sodium) intake
- Eatwell plate guidelines
- Too much salt intake in processed foods – easily exceed 6g per day recommendation
- Stomach cancer risks
- Strain on kidneys

Do not accept reference to high cholesterol.

(b) Award **1 mark** for **each** relevant point. [3]

Reference could be made to:

- Not adding salt to meals
- Not using salt during cooking
- Avoiding many ready meals/convenience foods/take-aways
- By not using stock cubes/food components high in salt
- Reducing visits to fast food outlets
- Choosing foods low in sodium
- Substitution with spices/flavourings
- Use of 'LoSalt'
- Switching to low salt versions of everyday foods, e.g. breakfast cereals/named spreads, e.g. Flora, tinned foods/reduced salt options, etc.
- Avoiding/limiting salty foods from diet such as nuts, crisps, cheese, ham, pretzels, bacon, smoked fish, etc.
- Read labels when choosing meals or to check for hidden salt

(c) Award **1 mark** for a basic definition.(e.g. salt you can't see) [2]

Award **2 marks** for the definition plus an example.

Salt found in food that the consumer is often unaware of:

- Hidden **sodium** in foods – monosodium glutamate (MSG)
- In cakes, biscuits, pastries and puddings in the form of sodium bicarbonate (raising agent). Used in ready meals, savoury snacks, soy sauce, sauces, etc. As a preservative.

Award **1 mark** when reference is made to hidden salt in a named product.

<p>Q.6 (a) Award 1 mark for each relevant point. [3]</p> <p>Reference could be made to:</p> <ul style="list-style-type: none"> • Leaner cut of bacon/back bacon • Removal of bacon/replace bacon with/use Quorn or alternative, e.g. Chicken , turkey, tuna • Omit frying onion/bacon/drain fat off onion/bacon • Removal of fried onions/use raw onions • Removal of cream/use of crème fraiche/use low-fat cream products • Replace whole milk/use skimmed milk/use semi-skimmed milk • Replace Cheddar cheese with Edam/use of lower-fat cheese • Use less cheese/bacon • Roll pastry thinner • Use filo pastry for case • Use low-fat/half-fat spread or margarine • Grilling bacon/use contact grill
<p>(b) Award 1 mark for a relevant point. [1]</p> <p>Reference could be made to:</p> <ul style="list-style-type: none"> • Made with pastry/flour • Contains gluten/wheat • It will give them upset stomach; intolerance/food allergy.
<p>(c) Award 0 – 1 marks for one suggested function. [3]</p> <p>Award 2 marks for two suggestions with no explanation or one suggestion with a full explanation.</p> <p>Award 3 marks for three suggestions, or two suggestions with detailed explanation.</p> <p>Reference could be made to:</p> <ul style="list-style-type: none"> • To provide protein/adds nutritional value/enriching • They set/coagulate/solidifies the filling • Adds colour to the flan • Trap air to give a light texture • Adds flavour.
<p>(d) Award 1 mark for each relevant point with some explanation. [3]</p> <p>Reference could be made to:</p> <ul style="list-style-type: none"> • To prevent a 'soggy bottom'/firms up pastry base • To give a 'crisp' finish • Give a stronger pastry case • To prevent pastry raising through the filling • To give 'bite'/shortness • Filling may need shorter cooking time • More acceptable texture to finished flan • Prevents leaking of filling through pastry • Adds colour to pastry

Q.7 (a) Award **1 mark** for **each** correct response. [2]

Reference could be made to:

- Poultry/chicken/duck/turkey/goose
- Meat/beef/lamb/pork/sausages/burger
- Offal/liver/kidneys
- Fish/shell fish
- Eggs
- Dairy Products/cream/milk/yogurt
- Cooked Rice (just rice, no marks)/reheated rice
- Custards/sauces/gravy

Also credit a named food product, e.g. chicken curry and fresh cream doughnut – **2 marks**.

Meat and beef burger – **1 mark**.

(b) Criteria marked [3]

Reference could be made to:

- To avoid cross contamination
- To keep raw foods cooked foods apart
- To avoid bacteria transfer
- Award reference to a named bacteria

Examples/exemplification: Chopping Boards, Knives, and Storage Containers can be colour coded.

The colours used to identify equipment:

Raw meat	Red	Salad and fruit	Green
Fish	Blue	Vegetables	Brown
Cooked meat	Yellow	Bakery and dairy	White

Award **0 – 1 marks** for a basic description of why it is important.

Award **2 marks** for a basic description with some explanation.

Award **3 marks** for a clear description why they are used with examples.

(c) Criteria marked. [4]

- Check hygiene standards, e.g. check equipment
- Advise on changes needed if issues arise
- Close premises down
- Check HACCAP/procedures
- Vermin/pests
- Check temperatures
- Take samples of food products away for testing
- Breaching of the Food Hygiene Act
- Oversee star ratings
- Check personal hygiene regulations are met

Award **0 – 1 marks** for a basic knowledge of the role of the Environmental Health Department in the monitoring of food hygiene standards (1 point but no elaboration).

Award **2 marks** for some knowledge of the role of the Environmental Health Department in the monitoring of food hygiene standards.

Award **3 – 4 marks** for a good response with clear knowledge of the role of the Environmental Health Department in the monitoring of food hygiene standards.

Q.8 (a) Award **1 mark** for **each** relevant point with appropriate qualification. [3]

NB 2/3 one word answers bracket together and give one mark only.

Reference could be made to:

- Can't cook
- Won't cook/don't like it
- Lack of facilities
- Increased availability
- Working longer hours in UK
- Adults/children often eat separately in families
- Can be cheaper alternative than buying separate ingredients/making from scratch
- Lifestyle changes/fewer family meals
- Good when cooking facilities are limited
- Little skill to prepare
- Quick to cook/prepare/serve
- Little or no washing-up required
- No set meal times
- Many are microwaveable (Microwaves more popular in UK than continental EU)
- Excellent for single portions/many designed as meals for one/may live alone/prepare their own meals
- Many students may live/dine alone
- Can be very cheap/inexpensive/meet budget needs/offers available
- Good if on special diets
- Able to try new ideas
- Some meals you would not be bothered to prepare from scratch
- Wide availability in UK shops
- Wide range of product types
- Influence of advertising
- Quicker than shopping for individual ingredients .

(b) Criteria marked.

[8]

Reference could be made to:

- Complete meals/cook-chill/bottled/canned/tinned/dried/take-away foods
- Many available in single portions
- Components of meals/party foods
- Sliced bread/dips/cakes/cookies/biscuits/frozen Yorkshire puddings, etc.
- Sauces/soups/salads/vegetables/desserts/soups/meal/poultry/fish, etc.

Accept any reference to the cost of branded or own brand convenience foods.

Accept any other reasonable points.

Reference could be made to:

- Pre-prepared ingredients
- Stock cubes/dried packed mixes, etc.
- Milk and milk products
- Sauces
- Pasta sauces
- Pastry

Award **0 – 3 marks** for a response with discussion and some reference to at least two types of convenience foods. A basic attempt to discuss the range of convenience foods for students.

Award **3 – 5 marks** for a good response with more than two examples of convenience foods discussed, response shows good range (other than cook chill type/take-aways) of foods and clear reasons for why they are suitable.

Award **6 – 8 marks** for an excellent response with a wide range convenience foods and use and suitability for students discussed, response shows clear expression and is largely error free.

Q.9 (a) Award **1 mark** per relevant point. [3]

- Becoming more aware of animal ethics
- Environmental issues
- Animal rights
- Animal conditions
- Animal treatment
- Slaughter methods
- Farming methods
- May not want to eat the flesh of an animal, bird, fish or shellfish
- May disagree with raising and killing to provide food
- May consider it to be generally 'healthier' diet
- Cultural changes
- Economic
- May be part of a trend for Jessie
- Religious reasons
- Peer/parental pressure
- Do not like the flavour/texture

(b) Criteria marked. [3]

Reference could be made to:

Differences between Lato-Ovo and Vegan

Lato-Ovo	Vegan
The practice of following plant-based diets (fruit, vegetables, etc.), with the inclusion of dairy products and eggs, and with the exclusion of meat – red meat, poultry, seafood. May abstention from by-products of animal slaughter, such as animal-derived rennet (1) and gelatine(1).	A vegan diet excludes all animal products, including eggs, dairy and honey. Abstention from by-products of animal slaughter, such as animal-derived rennet and gelatin.

Award 0 – 1 marks for a basic description.

Award 2 marks for a clear description.

Award 3 marks for a detailed description with examples of specific foods/dishes they can eat.

For full 3 marks, it needs to state that vegans do not eat any animal by-products/gelatin.

(c) Criteria marked

[8]

Reference could be made to:

- Nutritional needs are met by a varied and well balanced
- Vegetarian diet can provide all of the nutrients needed
- A vegetarian diet that is low in saturated fat, high in fibre, with plenty of whole grains cereals, fruits and vegetables; contains moderate amounts of protein foods and includes limited added fats and sugars will closely meet healthy eating guidelines
- A vegetarian diet requires careful planning, particularly for a new vegetarian, to ensure nutritional needs are met
- Ensure iron levels are maintained through daily diet or use of iron supplements
- Can be high in fat due to reliance on dairy foods.
- Key nutrients to consider in planning a vegetarian diet include protein, vitamin B12, iron, zinc and calcium
- Vitamin B12 is found only in animal products so deficiency is a potential concern for any person following a vegetarian diet (especially a vegan diet)
- Ensuring protein rich foods are part of the daily diet, including: legumes, soybeans, chickpeas, lentils, kidney beans, split peas and baked beans, whole grains such as brown rice, buckwheat, polenta, quinoa, barley and oats
- Dairy foods and eggs, Quorn (lacto-ovo vegetarians)
- Soya products such TVP, Tofu, chick peas, etc.

Award 0 – 3 marks

Overall impression: basic understanding.

- Displays limited knowledge and understanding of the importance of key nutrients in a balanced vegetarian diet.
- Inadequate attempt to explain how food/diet needs are met.
- Quality of written communication is basic.

Award 4 – 5 marks

Overall impression: competent.

- Displays some knowledge and understanding of the importance of key nutrients in a balanced vegetarian diet.
- A reasonable attempt to explain how food/diet needs are met.
- Quality of written communication is appropriate.

Award 6 – 8marks

Overall impression: highly competent

- Displays a very good knowledge and understanding of the importance of key nutrients in a balanced vegetarian diet.
- Clearly explains how food/diet needs are met.
- Quality of written communication is very effective.

Q.10 (a) Criteria marked.

[12]

Credit a well written response which includes reference to:

(i) Health risks associated with obesity

Eating too much and not enough energy used to burn up calorie can put people at risk from:

- Heart disease
- Diabetes
- Some forms of cancer
- High blood pressure
- Strokes
- Arthritis/osteoarthritis
- Skin rashes and infections
- Breathing difficulties (the weight on the chest)
- Emotional problems
- Low self-esteem
- Depression
- Alcohol abuse
- Some people are less likely to work
- Strain on NHS
- 'Generational' obesity

(ii) Healthy eating patterns points could include

- Establishing good eating habits with children
- Avoiding too many energy dense foods
- Avoiding high sugary drinks
- Portion control
- Reference to eating Fast foods
- Children are less active/computer game generation
- Children should be encouraged to eat healthy foods
- Regular exercise
- Walking to school
- Encouraging use of physical exercise – bikes/swimming etc.
- Serve foods in an interesting way
- Encourage children to shop, prepare and cook foods
- Following Eatwell Plate guidelines
- Following the five-a-day campaign
- Establishing good eating patterns
- Children should be discouraged from grazing
- Eating a balanced diet
- The correct combination of nutrients
- Energy balance
- Reducing/avoiding fats and sugars
- Eating fewer processed food
- Increasing dietary fibre
- Less snacking
- Eating breakfast
- Eating as a family
- Establishing regular mealtimes
- Setting good examples
- Reference to fast foods
- Treats limited
- Suggestions for low sugar, lower fat alternative
- Awareness raising of food labels/traffic light system

Marks to be awarded as follows:

(i)

Award 0 – 2 marks for one main health concern, or a weak response with errors and/or poor expression.

Award 3 – 4 marks for a list/fairly good response with some reference to the health risk. Some errors and an attempt to identify more than one health issues around obesity.

Award 5 – 6 marks for a comprehensive/detailed response with 3 – 4 sound reasons. Relatively few errors and some attempt to clarify health issues around obesity.

(ii)

Award 0 – 2 marks for a list or a weak response with errors and/or poor expression.

Award 3 – 4 marks for a response with some reference to 2 – 3 points on patterns of 'healthy eating'. Relatively few errors and some attempt to discussion.

Award 5 – 6 marks for a comprehensive response with sound reasons and discussion. Response shows clear expression and is mainly error free.

(b) Criteria marked.

[12]

Credit a well written response which makes reference to some of the following:

(i) Food packaging – industry

(ii) Changes to reduce impact on environment

- To contain food
- To inform the consumer of price
- To give serving instructions/suggestions
- To give microwaving/cooking instructions
- To protect the food from the atmosphere, insects, bacteria, chemicals, micro-organisms tamperproof
- To attract consumers, use of bright colours, 'pester power', special offers
- To reduce waste foods
- To prevent damage to the food whilst being transported/displayed/stored or carried
- To preserve food by extending its shelf-life
- To avoid contamination
- Can pack food to control the atmosphere (MAP) e.g. fruit
- To prevent drying out
- Some packaging can extend the shelf-life of a product – canning and bottling with the use of heat
- To prevent transfer of aromas
- Food labelling information is required by law
- To give the consumer guidelines on weight/volume, storage; best before, use by, of ingredients, consumer rights, manufacturer's contact details
- To identify what the food is
- Voluntary codes/traffic light labelled nutritional claims
- Storage information
- Suitability for freezing
- Special diets
- Recycling information of materials used for packaging
- To show quality marks/awards

Manufacturers and supermarkets recent years have redesigned many of their processes to

- Use less packaging/minimum packaging
- Use paper/card/paperboard that comes from sustainable forests
- Avoid harmful processes like bleaching wood pulp with chemicals
- Use more materials that can be easily recycled
- Print information labels giving the consumer more information on the materials used
- Use fewer composite materials thus making the packaging more readily recyclable
- Be more involve in anti-litter campaigns
- Mention landfill eco-schemes in in-store magazines
- Use fewer polystyrene containers in favour of more eco-friendly paperboard
- Use carrier bag campaigns/carrier bag charging policies
- Use paper bags
- Use refill packs, e.g. coffee, washing powder

(i)

Award 0 – 2 marks for a weak response outlining only one reason/with errors and/or poor expression.

Award 3 – 4 marks for a list/reasonable response with some reference to discussion on labelling use in the food industry. Relatively few errors and some attempt to describe the need for packaging.

Award 5 – 6 marks for a comprehensive response with many sound reasons of how the food industry uses food packaging.

If candidates have only discussed labelling on packaging in (i) award a maximum of 3 marks.

(ii)

Award 0 – 2 marks for a weak response with errors and/or poor expression.

Award 3 – 4 marks for a list/response with some reference to 2 – 3 points on changes in packaging. Relatively few errors and some attempt to evaluate the changes.

Award 5 – 6 marks for a comprehensive response with sound reasons and discussion, on 4 or more points. Response shows clear expression and is mainly error free.



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