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Published Mark Scheme for GCSE Home Economics Summer 2010

Issued: October 2010



NORTHERN IRELAND GENERAL CERTIFICATE OF SECONDARY EDUCATION (GCSE) AND NORTHERN IRELAND GENERAL CERTIFICATE OF EDUCATION (GCE)

MARK SCHEMES (2010)

Foreword

Introduction

Mark Schemes are published to assist teachers and students in their preparation for examinations. Through the mark schemes teachers and students will be able to see what examiners are looking for in response to questions and exactly where the marks have been awarded. The publishing of the mark schemes may help to show that examiners are not concerned about finding out what a student does not know but rather with rewarding students for what they do know.

The Purpose of Mark Schemes

Examination papers are set and revised by teams of examiners and revisers appointed by the Council. The teams of examiners and revisers include experienced teachers who are familiar with the level and standards expected of 16- and 18-year-old students in schools and colleges. The job of the examiners is to set the questions and the mark schemes; and the job of the revisers is to review the questions and mark schemes commenting on a large range of issues about which they must be satisfied before the question papers and mark schemes are finalised.

The questions and the mark schemes are developed in association with each other so that the issues of differentiation and positive achievement can be addressed right from the start. Mark schemes therefore are regarded as a part of an integral process which begins with the setting of questions and ends with the marking of the examination.

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all the markers are following exactly the same instructions and making the same judgements in so far as this is possible. Before marking begins a standardising meeting is held where all the markers are briefed using the mark scheme and samples of the students' work in the form of scripts. Consideration is also given at this stage to any comments on the operational papers received from teachers and their organisations. During this meeting, and up to and including the end of the marking, there is provision for amendments to be made to the mark scheme. What is published represents this final form of the mark scheme.

It is important to recognise that in some cases there may well be other correct responses which are equally acceptable to those published: the mark scheme can only cover those responses which emerged in the examination. There may also be instances where certain judgements may have to be left to the experience of the examiner, for example, where there is no absolute correct response – all teachers will be familiar with making such judgements.

The Council hopes that the mark schemes will be viewed and used in a constructive way as a further support to the teaching and learning processes.



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General Certificate of Secondary Education 2010

Home Economics

Unit 1: Diet and Health and Consumer Awareness

[GHE11]

TUESDAY 18 MAY, MORNING

MARK SCHEME

Section A - DIET AND HEALTH



1 (a) We are advised to eat fewer salty foods. (AO1)

Identify **two** dietary disorders that could result from having too much salt in our diet.

Answers may address any **two** of the following points:

- high blood pressure (hypertension)
- strokes
- heart disease
- damage to kidneys.

$$(2 \times [1]) \tag{2}$$

(b) Write down **four** ways we can reduce our salt intake. (AO1, AO2)

Answers may address any **four** of the following points:

- avoid processed food, using fresh where possible
- don't set salt out at the table
- check food labels to determine salt levels
- replace salt in cooking with herbs or spices
- · use potassium substitute, e.g. "Low Salt"
- don't add salt before tasting
- limit the use of stock cubes high in salt
- ensure it is not repetitive

All other valid responses will be given credit.

[1] for key word or phrase $(4 \times [1])$ [4]

(c) One of the "8 tips for eating well" is to drink plenty of water.

Explain **two** reasons why this tip is important for a school child. (AO1, AO2)

- healthy skin
- develops good dietary habits
- maintains body temperature
- removes waste prevents constipation
- replaces fluid lost in sweat sports
- required for all body fluids blood, saliva, urine rapid growth
- improves brain function concentration at school
- lubricates mucous membranes
- [1] for basic explanation
- [2] for competent explanation

$$(2 \times [2])$$

[4] 10

2 (a) Explain why the following nutrients are important in the diet of babies and toddlers (0–3 years). (AO1, AO2)

Answers may address any of the following points: Iron

- healthy blood formation of haemoglobin
- increase in blood volume during period of growth
- helps carry oxygen around body to muscles
- supplies the baby with energy for growth
- prevents iron deficiency anaemia
- iron store depleted by six months and must be replenished.

Calcium

- development of healthy bones calcium deposits laid down
- rapid growth
- strong teeth enamel layer
- combines with phosphorus to make calcium phosphate which gives strength to bones and teeth
- for brain development

All other valid responses will be given credit.

Level of explanation

Answers must relate to babies and toddlers for full marks to be awarded.

- [1] for basic explanation
- [2] for competent explanation

$$(2 \times [2])$$

[4]

(b) Discuss **two** points related to food safety when preparing, cooking or serving food for babies. (AO1, AO2, AO3)

Answers may address any **two** of the following points:

- only cooled, boiled water should be added to baby foods, milks and other drinks
- foods should be cooked thoroughly until piping hot and cooled rapidly
- eggs should be cooked until they are solid
- left-over portions should be disposed of to reduce risk of food poisoning
- kitchen surfaces where food is prepared should be kept clean
- highchairs, bibs and eating areas should be wiped before and after every meal
- food should be correct consistency to avoid choking
- food should not be too hot to burn baby's mouth

All other valid responses will be given credit.

- [1] for basic discussion
- [1] for competent discussion

 $(2 \times [2])$

[4]

(c)	Explain two benefits of including superfoods such as "blueberries" in the diet. (AO1, AO2) Answers may include the following: offer extra protection against disease – natural antioxidant excellent source of Vitamin C – prevents oxidation of cells helps release energy in the body can lower cholesterol levels – good dietary habits do not award for 5-a-day, focus must be superfoods All other valid responses will be given credit.		AVAILABLE MARKS
	[1] for basic explanation [2] for competent explanation (2 × [2])	[4]	12

3 (a) Explain two functions of protein: (AO1, AO2)

Answers should include growth, repair or secondary source of energy:

- for growth of bones, muscles, body tissue
- · for hair, nail growth
- for repair to skin after injury
- · to replace cells as they wear out
- to supply a secondary source of energy if not enough carbohydrate or fat available

All other valid responses will be given credit.

- [1] for basic explanation
- [2] for competent explanation

$$(2 \times [2])$$

[4]

(b) Write down **two** good sources of protein that would be suitable for a vegan. (AO1)

Answers may include the following:

- bread
- breakfast cereals
- nuts
- beans
- peas
- lentils
- soya
- quinoa

All other valid responses will be given credit.

[1] for key word or phrase $(2 \times [1])$

[2]

(c) Explain what is meant by "protein complementation". (AO1, AO2, AO3)

Answers may include the following:

- two protein foods are eaten together
- the IAAs which are limited in one are provided by the other
- sufficient IAAs are provided
- examples are beans on toast, bread and cheese, cereal and milk
- may discuss in terms of LBV and HBV

All other valid responses will be given credit.

- [1] basic explanation
- [2] competent explanation
- [3] highly competent explanation

$$(1 \times [3])$$

[3]

- 4 The levels of obesity are rising in the UK.
 - (a) Write down **two** health problems that could develop from obesity. (AO1)

Answers should include any **two** of the following:

- coronary heart disease
- diabetes
- respiratory problems
- high blood pressure
- stroke
- skeletal problems
- some types of cancers
- can lead to high blood cholesterol levels may cause blocked arteries
- mental health problems

All other valid responses will be given credit.

[1] for key word or phrase $(2 \times [1])$

(b) Discuss two factors, other than diet, that may increase the risk of obesity. (AO1, AO2, AO3)

Answers may include **two** of the following:

- lack of regular exercise
- family history of obesity
- metabolic rate how fast the body burns off fat
- irregular meals
- medicines/illnesses that can cause obesity

All other valid responses will be given credit.

[1] for basic discussion

[1] for competent discussion $(2 \times [2])$

(c) Adolescents often make their own food choices. Discuss two ways an adolescent could make changes to their diet to reduce the chance of developing obesity. (AO1, AO2, AO3)

Answers may address any **two** of the following points linked to an adolescent:

- eat breakfast as it kick-starts the metabolism which helps maintain a healthy weight or reduces grazing
- replace high fat, high sugar goods with healthier alternatives
- choose low calorie snacks instead of high fat foods
- select fast food wisely e.g. avoid korma, masala
- choose healthier lunch options e.g. low fat mayo, sandwiches, salads
- check labels for nutritional content

All other valid responses will be given credit.

[1] basic discussion

[2] competent discussion

 $(2 \times [2])$

[4]

[2]

[4]

5 Discuss **three** nutritional requirements which should be considered when planning meals for an older adult (65+ years). (AO1, AO2, AO3)

Answers may address some of the following points:

- saturated fats should be avoided as they increase cholesterol and the risk of coronary heart disease
- less energy requirements due to decreased physical activity
- protein requirements may increase to help repair tissues and recover from illness
- calcium required to prevent bone-loss resulting in osteoporosis
- foods with high levels of salt should be reduced to prevent high blood pressure – can lead to strokes and coronary heart disease
- iron-rich foods required to prevent iron-deficiency anaemia iron absorption may be lower in older adults, linked to medication
- NSP required to prevent constipation and other bowel-related disorders, common problems in this age-group

All other valid points will be given credit.

Must be linked to age-group to be awarded Level 3.

[0] is awarded for a response not worthy of credit

Level 1 ([1]–[3])

Overall impression: basic

- identifies and comments on a few obvious points relevant to the question
- a limited discussion applied in simple terms to the question
- quality of written communication is basic.

Level 2 ([4]–[6])

Overall impression: competent

- identifies and comments on some key points relevant to the question
- a competent discussion applied accurately to the question
- quality of written communication is competent.

Level 3 ([7]-[9])

Overall impression: highly competent

- identifies and comments on the key points relevant to the question
- a highly competent discussion applied accurately within the context of the question
- quality of written communication is highly competent.

[9]

Analyse how the information on this label can be used in planning a healthy, balanced diet. (AO1, AO2, AO3)

Answers may address some of the following points:

- Guideline Daily Amounts (GDAs) help consumers make sense of the nutrition information provided on food labels
- GDAs are guidelines for healthy adults and children about the nutrition content of foods
- helps consumers to make appropriate dietary choices
- amount of calories, sugars, fat, saturated fat and salt are displayed clearly
- shows the percentage value of each nutrient and calories for an average serving of the food
- useful for comparisons with other similar products
- can be used as a basis against which to judge the contribution to the diet, of one of the nutrients shown
- GDAs are a voluntary front-of-pack labelling system and do not have to be adopted by all manufacturers
- differences in size and activity levels between people means GDAs are approximate not absolute

All other valid points will be given credit.

[0] is awarded for a response not worthy of credit

Level 1 ([1]-[3])

Overall impression: basic

- identifies and comments on a few obvious points relevant to the question
- a limited analysis applied in simple terms to the question
- quality of written communication is basic.

Level 2 ([4]-[6])

Overall impression: competent

- identifies and comments on some key points relevant to the question
- a competent analysis applied accurately to the question
- quality of written communication is competent.

Level 3 ([7]–[9])

Overall impression: highly competent

- identifies and comments on the key points relevant to the question
- a highly competent analysis applied accurately within the context of the question
- quality of written communication is highly competent.

[9]

9

Total for Section A

Section B – CONSUMER AWARENESS

AVAILABLE MARKS

- 7 (a) Describe what is meant by the term "consumer". (AO1, AO2)
 - a consumer is someone who buys or uses goods or services –
 can be either in the public or private sector

 All other valid responses will be given and it.

All other valid responses will be given credit.

- [1] basic description
- [2] competent description

 $(1 \times [2])$

[2]

(b) Discuss **one** advantage and **one** disadvantage when shopping in a supermarket, for someone with a disability. (AO1, AO2)

Answers may include any **one** advantage and **one** disadvantage from the following:

Advantages

- disabled parking for those with mobility problems
- may be adapted trolleys for wheelchair users
- there should be a lift or escalator if there is a second floor
- extended opening hours gives more access if dependent on carer.
- shops may be more expensive may be on disability benefit

Disadvantage

- could be out of town difficult to access
- may be impersonal no help with shopping
- can be very large could make access difficult
- could be busy more stressful trying to get through shoppers All other valid responses will be given credit.

Must discuss **one** advantage and **one** disadvantage to obtain full marks.

- [1] basic discussion
- [2] competent discussion

 $(2 \times [2])$

[4]

8 (a) Write down a product where you would expect to find this symbol. (AO1)



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Answers **must** include a product that is harmful when inhaled or swallowed, e.g.:

- glue
- bleach
- products containing acid, e.g. drain unblocker or corrosive materials
- dishwasher products

All other valid responses will be given credit.

$$(1 \times [1])$$

(b) There are many sources of consumer information.

Evaluate the quality of information available to students from the following two sources: (AO1, AO2, AO3)

Answers should address both of the following sources:

The Internet

- I.T. skills are required to access good quality information
- may find the range of information confusing
- reliability of web sources, e.g. Consumerline.

Friends and family

- biased information if based on experience
- free advice good if they have little money get what you pay for
- may not want to talk to family members about their problems,
 e.g. debt
- lack of expertise amongst friends and family

All other valid responses will be given credit.

- * Must include positive and negative comments to be awarded full marks
- [1] basic evaluation
- [2] fairly competent evaluation
- [3] competent evaluation
- [4] highly competent evaluation *

[8]

(c) Explain how the following changes in lifestyle may affect a student's shopping behaviour. (AO1, AO2)

Answers may include the following:

Getting a part-time job

- more disposable income to buy goods and pay for services
- regular income to plan spending or take out rental agreement,
 e.g. mobile phone
- increases awareness of expenditure and budgeting
- increases temptation to overspend if more money available may lead to debt.

Moving into their own accommodation

- increased responsibility for bills may result in less disposable income for luxuries
- need to develop ability to prioritise needs over wants
- greater freedom to make shopping choices, if doing own shopping
- may use different types of shops, e.g. internet shopping may be more useful if transport is a problem

All other valid responses will be given credit.

- [1] basic explanation
- [2] competent explanation

 $(2 \times [2])$

[4]

13

9 (a) The Sale and Supply of Goods Act states that any goods you buy must be: (AO1)

Answers must be the following:

- of satisfactory quality
- fit for a particular purpose
- as described.

 $(3 \times [1]) \tag{3}$

(b) Describe **two** situations when a consumer is not protected by the Sale and Supply of Goods Act. (AO1, AO2)

Answers may describe any two of the following:

- if there was a fault and you were told about it before you purchased the item
- examined the item when you bought it and should have seen the fault
- made a mistake when buying the item
- simply changed your mind about the item
- if you keep a product for longer than what is considered a "reasonable time" before bringing your complaint
- goods bought from private seller, e.g. car boot sale*
 N.B. Sale and Supply of Goods Act applies to brand new and second-hand goods bought from a trader
- · when consumer causes the fault
- * Goods bought from private seller must still be "as described"
- [1] basic description
- [2] competent description

$$(2 \times [2]) \tag{4}$$

- (c) Discuss three ways the Consumer Council for Northern Ireland supports and informs consumers. (AO1, AO2, AO3)
 - represents consumers and gives them a voice
 - provides information on a wide range of consumer issues
 - influences policy makers in Northern Ireland on behalf of consumers
 - undertakes research
 - produces publications
 - handles complaints about buses, planes, trains, ferries, natural gas, electricity, coal and water
 - it campaigns on behalf of consumers to improve standards of service and protection
 - it gives advice through its website, www.consumercouncil.org.uk
 - it manages a consumer focused website called "Consumerline" at www.consumerline.org
 - [1] basic discussion
 - [2] competent discussion

$$(3 \times [2])$$
 [6] 13

10 The "credit crunch" affects all types of families. Discuss how a family with young children could manage their finances effectively.

Answers may address some of the following points:

- prioritise spending of income needs and wants
- draw up a budget and try to stick to it see where economies could be made
- try to pay bills while they are manageable don't ignore them
- ensure method of paying for goods and services is most efficient
- try to keep some money in savings for emergencies
- if a credit card is used, ensure that payments are being made on time
- try to avoid expensive debt as this is hard to recover from
- ensure that they are receiving the maximum amount of income benefits etc.
- ask for help from Citizen's Advice Bureau or consumer magazine like "Which?"
- try to make savings on shopping, eating, etc.
- plan for Christmas/holiday/school uniform spending
- try to avoid "pester power" from children
- try to reduce household bills, e.g. fuel, electricity
- encourage children to manage their own pocket money
- family entertainment special deals at cinema, early-bird meals, off-peak swimming, go for walks

All other valid points will be given credit.

[0] is awarded for a response not worthy of credit

		AVAILABLE MARKS
 Level 1 ([1]–[3]) Overall impression: basic identifies and comments on a few obvious points relevant to question a limited discussion applied in simple terms to the question quality of written communication is basic. 		
 Level 2 ([4]–[6]) Overall impression: competent identifies and comments on some key points relevant to the question a competent discussion applied accurately to the question quality of written communication is competent.)	
 Level 3 ([7]–[9]) Overall impression: highly competent identifies and comments on the key points relevant to the q a highly competent discussion applied accurately within the context of the question 		
 quality of written communication is highly competent. 	[9]	9
Total for Se	ection B	41
Total for Se	ection B Total	100
Total for Se		