

# General Certificate of Secondary Education 2019

# **Home Economics:** Food and Nutrition

Written Paper

[G9521]

**MONDAY 10 JUNE, MORNING** 

# MARK SCHEME

#### **General Marking Instructions**

#### Introduction

The main purpose of the mark scheme is to ensure that examinations are marked accurately, consistently and fairly. The mark scheme provides examiners with an indication of the nature and range of candidates' responses likely to be worthy of credit. It also sets out the criteria which they should apply in allocating marks to candidates' responses.

#### Assessment objectives

Below are the assessment objectives for Home Economics: Food and Nutrition.

Candidates should be able to:

- **AO1** Recall, select and communicate their knowledge and understanding of a range of contexts.
- AO2 Apply skills, knowledge and understanding in a variety of contexts and in planning and carrying out investigations and tasks.
- AO3 Analyse and evaluate information, sources and evidence, make reasoned judgements and present conclusions.

#### Quality of candidates' responses

In marking the examination papers, examiners should be looking for a quality of response reflecting the level of maturity that may reasonably be expected of a 16-year-old, the age at which the majority of candidates sit their GCSE examinations.

# Flexibility in marking

Mark schemes are not intended to be totally prescriptive. No mark scheme can cover all the responses which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If an answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner.

## Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for what candidates know, understand and can do rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range for any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected of a 16-year-old GCSE candidate.

#### Awarding zero marks

Marks should only be awarded for valid responses and no marks should be awarded for an answer which is completely incorrect or inappropriate and not worthy of credit.

## Types of mark schemes

Mark schemes for tasks or questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication.

Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided.

#### Levels of response

In deciding which level of response to award, examiners should look for the 'best fit' bearing in mind that weaknesses in one area may be compensated for by strength in another. In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement.

The following guidance is provided to assist examiners:

- **Threshold performance:** Response which just merits inclusion in the level and should be awarded a mark at or near the bottom of the range.
- *Intermediate performance:* Response which clearly merits inclusion in the level and should be awarded a mark at or near the middle of the range.
- *High performance:* Response which fully satisfies the level description and should be awarded a mark at or near the top of the range.

#### Quality of written communication

Quality of written communication is taken into account in assessing candidates' responses to all tasks and questions that require them to respond in extended written form. These tasks and questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication.

For conciseness, quality of written communication is distinguished within levels of response as follows:

- Level 1: Quality of written communication is basic.
- Level 2: Quality of written communication is competent.
- Level 3: Quality of written communication is highly competent.

In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below:

**Level 1 (Basic):** The candidate makes only a limited selection and use of an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

**Level 2 (Competent):** The candidate makes a reasonable selection and use of an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

**Level 3 (Highly competent):** The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is organised with a high degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure that meaning is clear.

1	Read the following statements and tick the box beside each correct answer.
	Tick only <b>one</b> box for each statement. (AO1)

AVAILABLE MARKS

(a) Which one of the following foods should be avoided during pregnancy?

(b) Which one item of information is required by law on a food label?

A name of food 
$$(1 \times [1])$$
 [1]

**(c)** Which **one** of the following health issues is a consequence of vitamin D deficiency in children?

**(d)** Which **one** of the following meals is a good example of protein complementation?

(e) Which one of the following foods is a good source of unsaturated fat?

**(f)** Select the recommended percentage of daily energy to be provided by carbohydrate.

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2	(a)	The Food Standards Agency has identified '8 tips for eating well'. Complete the following statement. (AO1)		AVAILABLE MARKS
		(i) "Eat less salt: no more than g a day for adults".		
			[1]	
		<ul><li>(ii) "Base your meals on starchy foods" is one of the tips for eating well. Write down two starchy foods. (AO1)</li><li>Answers could include:</li></ul>		
		<ul> <li>potatoes</li> <li>bread</li> <li>rice</li> <li>pasta</li> </ul>		
		All other valid responses will be given credit (2 × [1])	[2]	
		(iii) "Don't get thirsty" is another tip for eating well. Explain the importance of hydration in the body. (AO1, AO2)	е	
		<ul> <li>Answers may address some of the following points:</li> <li>to avoid dehydration which can lead to feelings of thirst, dizziness and tiredness</li> <li>prevent headaches</li> <li>maintain blood pressure</li> <li>maintain fluid balance</li> </ul>	6	
		All other valid points will be given credit [1] simple statement [2] accurate explanation with limited reasoning for importance [3] accurate explanation with developed reasoning for importance	[3]	
	(b)	Explain how the following advice from the Eatwell Guide benefits health: Choose unsaturated oils and use in small amounts. (AO1, AO2)		
		<ul> <li>reduces cholesterol – therefore reducing risk of CVD or strokes</li> <li>provides essential fatty acids which body cannot make</li> <li>source of omega 3 and 6 fatty acids essential for heart, blood, brain are joint health</li> </ul>	nd	
		<ul> <li>small amounts of unsaturated oils will reduce energy intake reducing risk of becoming overweight or obese</li> <li>a source of fat soluble vitamins A and D</li> <li>All other valid responses will be given credit</li> <li>[1] simple statement</li> <li>[2] accurate explanation</li> </ul>		
		[3] competent explanation (1 × [3])	[3]	9

(a) Explain what this label tells consumers about how food is produced. (AO2)
Answers may address the following points:
food safety

AVAILABLE MARKS

- · animal health and welfare
- food processing and manufacturing
- · farm safety and hygiene
- management of the environment

[1] simple statement

[1] accurate with clear explanation of information provided  $(1 \times [2])$ 

[2]

**(b)** Outline **two** ways the Northern Ireland Trading Standards Service offers protection for consumers when buying food. (AO1)

Answers may include some of the following points:

- · check all food sold by weight or volume is accurately measured
- check that food retailers do not give misleading price indications
- collect evidence which can be used in prosecution, e.g. fake alcohol
- check food labelling for misleading descriptions

All other valid responses will be given credit  $(2 \times [1])$ 

[2]

(c) Explain **one** barrier that may prevent individuals from being effective consumers when shopping for food. (AO2)

Answers may address the following points:

- disability: a physical disability which affects mobility may prevent consumer from accessing food on high shelves
- age: young and old consumers may be less confident
- ethnicity: language may prevent consumers from accessing information
- knowledge: a lack of knowledge about food and shops
- resources: lack of money when shopping for food or lack of time to shop or access to shops may be difficult in rural areas

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All other valid responses will be given credit

- [1] simple statement
- [2] accurate with clear explanation of barrier

 $(1 \times [2])$ 

[2]

(d) Evaluate the use of shopping apps as an option for buying food. (AO2, AO3)

AVAILABLE MARKS

Answers may address some of the following answers: Positive

- can create and manage grocery lists
- ordering food is quick and easy
- can check daily price of food items
- · easy to find food products through search, filter and barcode scanner
- · can compare prices of individual food items
- · some apps offer financial incentives, e.g. cash-back vouchers
- gives access to a wide range of takeaway menus
- some apps offer a delivery service
- consumers can use a number of different payment methods

#### Negative

- may encourage over-reliance on fast food which can have negative impact on health
- may discourage food preparation at home
- · expensive way to buy food
- need to have technology to access apps
- consumers may lack confidence to use apps
- no access to determine aesthetical quality of food
- difficult to check date marks on food items

All other valid responses will be given credit

N.B. positive and negative points must be included to be awarded maximum marks

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

[1] basic evaluation, [2] adequate evaluation, [3] competent evaluation, [4] highly competent evaluation

 $(1 \times [4]) \tag{4}$ 

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(e) Discuss how families can manage money effectively when shopping for food. (AO1, AO2, AO3)

AVAILABLE MARKS

Answers may address some of the following points:

- consider family size and buy only what is required or can be used before it goes out of date
- special offers buy one get one free, two for one etc. can be useful for larger families
- use loyalty reward points instead of spending money
- shopping online to compare prices
- buy staple items in bulk for larger families
- buy cheaper cuts of meat
- shop in budget stores
- use a detailed shopping list to ensure family needs are met
- · buy goods reduced at end of day and use or freeze
- downshift from premium brands to supermarket own brand
- use coupons or vouchers
- do not take children when shopping for food to avoid pester power All other valid points will be given credit

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

# Level 1 ([1]-[2])

Overall impression: basic

- Shows limited knowledge and understanding of managing money when shopping for food.
- Identifies and comments on a few obvious points relevant to the question.
- A limited discussion applied in simple terms to the question.

## Level 2 ([3]-[4])

Overall impression: competent

- Shows good knowledge and understanding of managing money when shopping for food.
- Identifies and comments on some key points relevant to the question.
- A competent discussion applied accurately to the question.

# Level 3 ([5]-[6])

Overall impression: highly competent

- Shows excellent knowledge and understanding of managing money when shopping for food.
- Identifies and comments on a range of key points relevant to the question.
- A highly competent discussion applied accurately within the context of the question.

 $(1 \times [6])$  [6] 16

8

(a) Place the following steps involved in crop production into the flow chart **AVAILABLE** MARKS below. (AO1) sowing seeds/seedlings harvesting fertilising Answers must be in the following order: sowing seeds and seedlings fertilising harvesting [3]  $(1 \times [3])$ (b) Milk is used to produce cheese. Identify the enzyme used to separate milk into curds and whey. (AO1) Answer: rennet  $(1 \times [1])$ [1] (c) Underline two foods which should not be eaten by someone who is lactose intolerant. (AO1) Answers must include the following: cow's milk custard  $(1 \times [2])$ [2] (d) Identify two methods used to catch fish. (AO1) Answers may include the following methods: pots and creels line caught trawling dredging All other valid responses will be given credit  $(2 \times [1])$ [2] (e) Explain what is meant by secondary processing in food production. (AO1, AO2) Answers may address any of the following points: when an ingredient that has undergone primary processing is transformed into a food product, e.g. flour processed into bread, milk processed into cheese All other valid responses will be given credit [1] simple statement [2] accurate explanation with clear reference to food production [2]  $(1 \times [2])$ 10

	EAR kcal per day		
Age	Boys	Girls	
4 years	1386	1291	
7 years	1649	1530	
15 years	2820	2390	

Source: British Nutrition Foundation 2016

(a) (i) Write down the energy requirement of a female child aged 7 years. (AO1)

Answer should be:

• 1530

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

(ii) Identify the age and gender with the highest energy requirement. (AO1)

Answer should include the following:

- 15 years
- boys

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

(iii) Outline the meaning of the term EAR. (AO1, AO2)

Answer should address the following:

- estimated average requirement
- estimated average amount of energy, or of a nutrient, required by people in a particular age group
- [1] simple outline
- [2] accurate outline of the meaning

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

(iv) Explain why boys have slightly higher requirements for energy than girls. (AO2)

Answer should include the following points:

- increased muscle mass
- larger body size/weight
- higher BMR
- [1] simple statement
- [2] accurate explanation with clear reference to why boys have higher energy requirements than girls

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

**(b)** Explain how the following advice could help someone maintain a healthy AVAILABLE MARKS weight. (AO2, AO3) Increase physical activity levels (PAL) increase energy expenditure via physical activity to help achieve energy balance to maintain healthy weight, calorie intake and calorie expenditure should be balanced [1] simple statement [2] accurate explanation with clear reference to maintaining a healthy weight  $(1 \times [2])$ [2] Manage portion sizes large portion sizes can lead to extra calories being consumed which leads to weight gain and can contribute to obesity overeating can increase appetite and likelihood of consuming extra calories

[1] simple statement [2] accurate explanation with clear reference to maintaining a healthy weight 11  $(1 \times [2])$ [2]

6 Older adults (65 years and older) are at risk of malnutrition.

- AVAILABLE MARKS
- (a) Explain why the following nutrients are important in the diet of an older adult: (AO1, AO2, AO3)

Answers may include some of the following points:

# carbohydrate

- high in fibre to avoid constipation and other bowel related disorders
- provides nutrients, e.g. B group vitamins
- starchy carbohydrates are filling and can prevent an older adult from snacking on sugary and fatty foods which can help with weight management

All other valid responses will be given credit

- [1] simple statement
- [2] accurate with some reference to older adult
- [3] accurate explanation with clear reference to older adult  $(1 \times [3])$

[3]

[3]

#### calcium and vitamin D

- slows age related bone loss
- reduce risk of osteoporosis/osteomalacia
- · vitamin D helps absorption of calcium
- maximise bone and joint health

All other valid responses will be given credit

- [1] simple statement
- [2] accurate with some reference to older adult
- [3] accurate explanation with clear reference to older adult (1 × [3])
- **(b)** Discuss **two** factors to consider when preparing meals for an older adult (65 years and older) with a sedentary lifestyle. (AO2, AO3)
  - meals should be nutrient dense rather than energy dense as energy requirements decline in older adults especially if they are sedentary
  - choose low fat, low sugar foods when preparing meals to maintain energy balance
  - avoid snacking on high fat and high sugar foods to avoid exceeding daily intake of calories
  - [1] simple statement with limited reference to preparing meals for an older person with a sedentary lifestyle
  - [2] accurate discussion with clear reference to preparing meals for an older person with a sedentary lifestyle

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

(c) Evaluate contactless credit cards as a method of payment for food for older adults. (65 years and older) (AO2, AO3)

Answers may address some of the following points:

#### Positive:

- useful if older person has no cash available to pay for food
- quick and convenient method of payment
- reduces need to carry large sums of cash which may be lost or stolen

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some credit cards offer benefits, e.g. cash back or reward/loyalty points
 widely accepted method of payment for a range of shopping options
 can offer interest free borrowing if bill paid in full at end of month
 no need to remember PIN
 Negative:

 buying food on credit card can potentially lead to debt
 it is easy to lose track of spending
 if bill not paid at end of month, interest is applied, increasing cost of food and risk of debt
 security issues – danger of card fraud
 older adult could be concerned about security as no PIN needed for contactless payment

All other valid responses must be given credit

Answer must relate to an older adult and must

Answer must relate to an older adult and must include both positive and negative points to gain full marks

[1] basic evaluation

[2] adequate evaluation

[3] competent evaluation

[4] highly competent evaluation

 $(1 \times [4]) \tag{14}$ 

7	"I Ne	ere are an estimated 4.5 million people living with diabetes in the UK".  DiabetesUK	2016	AVAILABLE MARKS
	(a)	Identify <b>one</b> health issue that could increase the risk of developing type 2 diabetes. (AO1)		
		Answers may include any of the following: <ul> <li>cardiovascular disease</li> <li>hypertension</li> <li>obesity</li> <li>(1 × [1])</li> </ul>	[1]	
	(b)	Discuss the dietary advice you would give someone to manage type 2 diabetes. (AO2, AO3)		
		<ul> <li>Answers may address some of the following points:</li> <li>eat a well balanced diet with foods from each food group</li> <li>include plenty of fruit and vegetables</li> <li>have regular meals</li> <li>try to eat foods low in sugar especially free sugars to avoid spikes in blood sugar</li> <li>base meals on complex carbohydrates to keep sugar levels constant</li> <li>monitor fat intake as diabetics more susceptible to CVD</li> <li>maintain a healthy weight</li> <li>limit alcohol intake</li> <li>All other valid responses will be given credit</li> <li>[1] basic discussion</li> <li>[2] adequate discussion</li> <li>[3] competent discussion</li> <li>[4] highly competent discussion</li> <li>(1 × [4])</li> </ul>	[4]	5
8	(a)	State why food additives are given an E number. (AO1)		
•		Answer may include the following:  to indicate it has been approved and is safe for human consumption (1 × [1])	[1]	
	(b)	colours  makes food look more attractive to eat  replace colour lost during food processing  enhances naturally occurring colour of food  preservatives  prevents spoilage of foods by micro organisms  extends shelf life keeping food safe to eat for longer  simple statement  accurate explanation of the role of additives in food production  (2 × [2])	[4]	5

**9** It is important to reduce the risk of bacteria contaminating food and causing food poisoning.

AVAILABLE MARKS

(a) List four conditions needed for bacterial growth. (AO1)

Answers must include four of the following:

- warmth
- food
- moisture
- suitable pH
- time
- oxygen

 $(4 \times [1]) \tag{4}$ 

**(b)** Meat is a high risk food. Discuss how E. coli bacteria can be controlled when preparing and cooking meat. (AO2, AO3)

Answers may address some of the following points:

- defrost meat at bottom of fridge to reduce the time bacteria is in danger zone 5–63 °C
- prevent cross contamination, e.g. use a red chopping board when preparing raw meat, use separate utensils
- cook meat thoroughly, e.g. minced beef products to 75 °C to destroy
   E. coli bacteria

All other valid responses will be given credit

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

## Level 1 ([1]-[2])

Overall impression: basic

- Shows limited knowledge and understanding of E. coli food poisoning.
- Identifies and comments on a few obvious points relevant to the question.
- A limited discussion applied in simple terms to the question.

#### Level 2 ([3]-[4])

Overall impression: competent

- Shows good knowledge and understanding of E. coli food poisoning.
- Identifies and comments on some key points relevant to the question.
- A competent discussion applied accurately to the question.

# Level 3 ([5]-[6])

Overall impression: highly competent

- Shows excellent knowledge and understanding of E. coli food poisoning.
- Identifies and comments on a range of key points relevant to the question.
- A highly competent discussion applied accurately within the context of the question.

 $(1 \times [6])$  [6]

(c)	Describe how the Food Standards Agency (FSA) Food Hygiene Rating Scheme protects consumers in relation to food safety. (AO2, AO3)		AVAILABLE MARKS
	<ul> <li>ensures facilities and records are inspected to make sure food is safe eat</li> <li>makes it a legal requirement for food businesses to display food hygiene ratings 0–5</li> </ul>		
	<ul> <li>consumers can use ratings to make a choice of where to eat or shop</li> <li>allow consumers to see if a food business follows hygienic practices</li> <li>All other valid points will be given credit</li> <li>basic description</li> <li>adequate description</li> <li>competent description</li> </ul>		
	(1 × [3])	[3]	
(d)	Who is responsible for enforcing the Food Hygiene Rating Scheme? (AO	1)	
	<ul> <li>Environmental Health Practitioner</li> <li>(1 × [1])</li> </ul>	[1]	14

Answers may address some of the following points:

#### **Economic**

- disposable income amount of disposable income available affects ability to make impulse buys, may have to budget and buy necessities over wants
- financial incentives special offers, e.g. buy one get one free, can encourage consumers to buy new products
- value for money downsize brands to save money

#### Personal

- aesthetics appearance, colour, texture, aroma of food
- likes and dislikes choosing food a consumer likes to eat and avoiding foods disliked
- age adolescents may choose fast food; adults may socialise over a leisurely meal at a restaurant

#### **Environmental**

- food miles shop local to reduce carbon footprint
- organic food to lessen the environmental impact of pesticides and promote animal welfare
- bags for life to lessen environmental impact of plastics

#### Ethical

- animal welfare buy free range eggs, organic food, dolphin friendly tuna
- child labour choose Fairtrade products which protect producers and avoid child labour
- sustainability choose foods sustainably produced, e.g. sustainable fish MSC

#### Social

- friends social person may eat out/meet friends for coffee
- influence of family lifelong habits, loyalty to a supermarket
- choose to shop in stores where there is a friendly shopping experience

#### Religious/Cultural

- religious beliefs can affect food choice choosing halal meat and poultry
- beliefs, customs and behaviour of particular groups many families celebrate Christmas with a celebratory meal
- · choose familiar food from their own country

#### **Health issues**

- allergies/intolerance may mean certain foods are excluded from diet
- healthy choices choose low fat/low sugar/low salt options if on a diet or to reduce risk of health issue, e.g. CVD
- choose fortified foods cereals that have added vitamins and minerals All other valid points will be given credit

If list like bullet points no access to Level 3

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# Level 1 ([1]-[3])

Overall impression: basic

- Shows limited knowledge and understanding when discussing factors.
- Identifies and comments on a few obvious points relevant to the question.
- A limited justification applied in simple terms to the question.
- Quality of written communication is basic.

# Level 2 ([4]-[6])

Overall impression: competent

- Shows good knowledge and understanding when discussing factors.
- Identifies and comments on some key points relevant to the question.
- A competent justification applied accurately to the question.
- Quality of written communication is competent.

# Level 3 ([7]-[9])

Overall impression: highly competent

- Shows excellent knowledge and understanding when discussing factors.
- Identifies and comments on a range of key points relevant to the question.
- A highly competent justification applied accurately within the context of the question.
- Quality of written communication is highly competent.

 $(1 \times [9]) \tag{9}$ 

Dental caries in children is a health problem in Northern Ireland. Justify diet and lifestyle advice for parents wanting to reduce their child's risk of dental caries. (AO1, AO2, AO3)

Answers may address some of the following points

#### Dietary:

- limit sugar intake free sugars react with bacteria in plaque to create acid which attacks tooth enamel causing dental caries
- eat more milk and dairy products source of calcium which strengthens teeth
- eat a piece of cheese after a meal to balance effect of acid produced after eating foods high in sugar
- eat sweets all at once after meals to reduce the duration of acidic conditions in the mouth
- replace sugary drinks with water/milk sugary drinks are acidic and erode enamel
- cut down on sticky foods which stay in mouth for a long time
- eat more fruit and vegetables instead of sugary snacks as they are not a source of free sugars
- no snacking between meals snacking can increase time teeth are exposed to acid, increasing risk of dental caries
- eat foods rich in fibre chewing high fibre foods stimulates production of saliva in mouth which neutralises acid

#### Lifestyle:

- visit dentist every 6 months, to identify any oral problems and help prevent dental caries
- use a fluoride toothpaste, fluoride strengthens tooth enamel
- brush teeth twice daily for at least two minutes to remove plaque
- read labels and choose food with lowest sugar content

All other valid responses will be given credit

Must have diet and lifestyle points and relate to advice for parents wanting to reduce their child's risk of dental caries to access Level 3 but not necessary to include all of the above

List-like responses cannot access Level 3

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

# Level 1 ([1]-[3])

Overall impression: basic

- Shows limited knowledge and understanding of diet and lifestyle advice.
- Identifies and comments on a few obvious points relevant to the question.
- A limited justification applied in simple terms to the question.
- Quality of written communication is basic.

## Level 2 ([4]-[6])

Overall impression: competent

- Shows good knowledge and understanding of diet and lifestyle advice.
- Identifies and comments on some key points relevant to the question.
- A competent justification applied accurately to the question.
- Quality of written communication is competent.

· · · · · · · · · · · · · · · · · · ·				
Level 3 ([7]–[9])		AVAILABLE		
Overall impression: highly competent				
• Shows excellent knowledge and understanding of diet and lifestyle advice.				
• Identifies and comments on a range of key points relevant to the question.				
A highly competent justification applied accurately within the context of the				
question.				
<ul> <li>Quality of written communication is highly competent.</li> </ul>				
(1 × [9])	[9]	9		

# Sweet Potato and Chicken Curry with Rice

400 g chicken

300 g sweet potato

1 tbsp olive oil

1 onion

1 green pepper

200 g spinach

2 tbsp curry paste

400 g can coconut milk

2 tbsp natural yoghurt

2 tomatoes

300 g brown rice

- protein in chicken needed to meet demands of adolescent growth spurt and repair and maintenance of body tissues, secondary source of energy
- carbohydrate brown rice needed for energy requirements, 50%
   recommendation for adolescents starchy carbohydrates are nutrient dense rather than empty calories
- unsaturated fat in olive oil can reduce cholesterol and risk of CVD, a source of fat soluble vitamins A and D will meet increased energy demands to facilitate growth during adolescence
- fibre in brown rice needed to reduce risk of constipation and can be filling which will prevent adolescent from snacking on fatty and sugary foods and can help with weight management
- vitamin C in onions, pepper and tomatoes maintains connective tissue and improves immunity during adolescence, promotes absorption of iron reducing risk of iron deficiency anaemia
- vitamin A in tomatoes and sweet potato can contribute to healthy skin especially important in adolescence
- B group vitamins in brown rice help with release of energy required at time of rapid growth and development
- Iron in spinach prevents anaemia, common in adolescent girls and is needed to make up for iron loss through menstruation
- calcium in yoghurt/spinach is needed to strengthen bones and teeth, needed to ensure peak bone mass
- increased intake of vegetables to meet 5 a day recommendation, well balanced for an adolescent and reflects advice of Eatwell Guide
- vegetables are low in fat, therefore reducing risk of obesity in adolescents
   All other valid responses will be given credit

N.B. must refer to nutrients and relevant food sources for an adolescent to access Level 3 but not necessary to include all the above

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

Level 1 ([1]-[4]) AVAILABLE MARKS Overall impression: basic Shows limited knowledge and understanding of nutritional and dietary needs. 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 ([5]-[8]) Overall impression: competent Shows good knowledge and understanding of nutritional and dietary needs. 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 ([9]-[12]) Overall impression: highly competent Shows excellent knowledge and understanding of nutritional and dietary Identifies and comments on a range of 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. [12] 12 Total 120

 $(1 \times [12])$