



Rewarding Learning

**General Certificate of Secondary Education
2022**

**Home Economics:
Child Development**

Unit 1

Parenthood, Pregnancy and
the Newborn Baby

[GCD11]

MONDAY 6 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: Child Development.

Candidates should be able to:

- AO1** Recall, select and communicate their knowledge and understanding of a range of contexts;
- AO2** Apply knowledge, understanding and skills in a variety of contexts and in planning and carrying out investigations and tasks; and
- 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.

COVID-19 Context

Given the unprecedented circumstances presented by the COVID-19 public health crisis, senior examiners, under the instruction of CCEA awarding organisation, are required to train assistant examiners to apply the mark scheme in case of disrupted learning and lost teaching time. The interpretation and intended application of the mark scheme for this examination series will be communicated through the standardising meeting by the Chief or Principal Examiner and will be monitored through the supervision period. This paragraph will apply to examination series in 2021–2022 only.

1 Read the following statements and tick the box beside each correct answer.
(AO1)

AVAILABLE
MARKS

- (a) The soft spot on a newborn baby's head is called the
A Fontanelle
(1 × [1]) [1]
- (b) Conception happens in the:
D Fallopian tube
(1 × [1]) [1]
- (c) A doctor who specialises in the female reproductive system is called a
C Gynaecologist
(1 × [1]) [1]
- (d) The average length of a newborn baby is
A 50 cm
(1 × [1]) [1]
- (e) How many weeks after birth is the postnatal check on the mother?
B 6
(1 × [1]) [1]

5

2 (a) Write down three possible causes of infertility. (AO1)

- Polycystic ovary syndrome
- Thyroid problems
- Damaged reproductive system, e.g. following ectopic pregnancy/ blocked/fallopian tubes
- Cervical mucus too thick
- Fibroids
- Endometriosis
- Sterilisation/hysterectomy/vasectomy
- Chemotherapy/long term use of ibuprofen
- Cancer treatment
- Age/menopause/old age
- Low sperm count/not enough sperm produced
- Testicular cancer/prostate cancer
- STIs
- Stress
- Smoking/alcohol/drugs
- Genetics
- Failure to ovulate/low egg production/count irregular periods
- Cervical/ovarian cancer
- PIV = pelvic inflammatory disease
- Obesity
- Sperm motility/slow sperm/failure to ejaculate/impotence
- Blockage in sperm duct
- Mumps
- Childhood injury/sports/teenage injury

All other valid points will be credited

Cancer = 0 Weight = 0

(3 × [1])

[3]

(b) Label the diagram of the fetus at 40 weeks. (AO1)

- (i) Placenta
- (ii) Umbilical cord
- (iii) Amniotic fluid/amniotic sac
- (iv) Uterus/uterus wall/womb
- (v) Cervix

(5 × [1])

[5]

(c) Describe the role of a paediatrician. (AO1, AO2)

Answers may address the following points:

- **Doctor** specialises in the care of **babies** and young **children** [2 marks]
- Carries out medical check upon babies born in hospital
- Supervises the treatment of babies
- Look after children through childhood

All other valid points will be credited

(1 × [2])

[2]

AVAILABLE
MARKS

10

3 (a) **Explain** two responsibilities parents and carers have in meeting the rights of a child according to the UN Convention on the Rights of the Child. (AO1, AO2)

Rights of child	Explanation may include:
Develop their personalities, abilities and talents	Parents/carers enrol them in clubs and activities, e.g. ballet, swimming, football, lego, jumping clay, drama, music
Keep safe/free from abuse protection	Use of safety equipment in the home, e.g. stair gates Avoid excessive shouting, negative comments, physical punishment
Right to education	Enrol child in preschool/school. Support with homework. Provide resources and games at home to promote learning.
Right to healthcare	Take child to GP when unwell. Ask for referrals for repeated illnesses, e.g. ears, nose and throat infections. Take child to immunisations.
Right to shelter	Provide a warm, safe home for the child.
Right to play	Parents/carers can provide a range of toys, books, outdoor play and encourage the child to take part. Take the child to parks.
Right to food	Adequate nutrition/growth and repair, child doesn't go hungry

Will develop SPICE needs

Any other valid responses will be given credit

(2 × [2])

[4]

(b) **Explain** one reason why an ultrasound scan is carried out. (AO1, AO2)

- **Confirm the date of pregnancy/calculate estimated date of delivery (EDD)** – allows for appropriate antenatal care to be given
- **To check that the baby is developing normally**, e.g. development of organs/size/weight/number of limbs – to reassure the mother
- **To check how many babies there are** – if it is a multiple pregnancy additional care would be provided/monitor more closely
- **To check the position, size and functioning of the placenta** – this may influence the method of delivery
- **To detect abnormalities, e.g. spina bifida, hydrocephalus, cleft palate** – pregnant woman would be referred to obstetrician for further tests
- **To check the gender of the baby if there is a risk of hereditary problems**, e.g. haemophilia
- **To check the position of the baby** – if in breech the mother may require a caesarean section
- **To detect a heartbeat** – provides reassurance for the mother especially

if she is anxious/experienced a miscarriage previously

All other valid points will be credited

Gender/sex of baby = 0

(1 × [2])

[2]

(c) Describe the following: (AO1, AO2)

(i) An ectopic pregnancy

- **When fertilised egg/foetus/baby develops in the fallopian tube rather than in the uterus** [2 marks]

- Can be fatal to the baby and can be dangerous for the mother
- The foetus has to be removed surgically
- The woman may sustain damage to her fallopian tube impacting fertility

[1] – Basic statement

[2] – Accurate statement

[3] – Accurate, full description using specialist terminology – must refer to **fallopian tube and uterus**

(1 × [3])

[3]

(ii) A breech birth (AO1, AO2)

- This is when the baby is positioned with feet or bottom presenting first rather than with head facing down for birth
- If the baby does not turn to present head down, birth will be difficult and dangerous for both mother and baby
- Often requires assisted delivery – obstetrician and anaesthetist present at birth, ventouse/forceps at delivery
- Longer recovery period for mother after birth

[1] – Basic statement

[2] – Accurate statement

[3] – Accurate, full description using specialist terminology – must refer to obstetrician

(1 × [3])

[3]

AVAILABLE
MARKS

12

4 (a) Patrick and Ellie are expecting (pregnant with) their first child. (AO1, AO2)
Discuss three points Patrick and Ellie should consider when choosing a cot.

- **Gaps between the bars should be close together, between 4.5–6.5 cm apart** – to prevent risk of baby’s limbs or head getting caught between bars
- **Check cot conforms to BSI standard, check for safety labels attached to cot** – parents will be reassured that cot has been tested and checked for safety
- **Gap around the mattress should be no more than 4 cm** – to prevent risk of baby’s limbs getting caught between mattress / using a new firm mattress to avoid SIDS
- If buying second-hand, **check paint is lead-free** as baby could chew on cot and get lead poisoning
- Choose cot with a **height adjustable base** that can be raised for easy access to newborn – Patrick and Ellie can reach baby easier, safer as less chance of dropping baby
- A cot with **one drop side** to allow easier access to baby, e.g. when picking up baby it is safer and easier to change nappy, less strain on Patrick and Ellie’s back. Catch needs to be secure so it cannot be opened/undone by other children
- A cot with **fixed sides** which do not drop down is safer – baby will not be able to open sides and climb out as easily as with drop side cot
- **Check for smooth rails**, no loose pieces or nails or screws – baby could choke on small pieces
- Check cot is **stable and will not topple over** when baby starts to stand up, move around – baby needs to be safe and not have risk of falling out
- **Cost – is affordable and is worth the price** – as money may be limited if mother is not working and is on maternity pay/parents will have other expenses, e.g. pram, nappies, clothes
- Cost and durability e.g. use again with other children - buy a cot bed to make transition into a bed more affordable

All other valid points will be credited

(3 × [2])

[6]

(b) Discuss how the Consumer Rights Act 2015 will protect Patrick and Ellie when buying the cot. (AO2)

- The cot should be of **satisfactory quality/be safe** – it should not be **faulty** or **damaged**/quality is reflective of how much it cost/last a reasonable amount of time
- **Fit for purpose** – suitable for a baby to sleep in
- **As described** on package or by seller – colour, adjustable height, drop side
- Cot can be **returned** if it is not up to the expected standard/they are entitled to a **refund**

(1 × [2])

[2]

(c) The care labels below may be found on babies’ clothes.
Write down what each label means. (AO1)

- (i) Wash at 30 °C / maximum temperature
(1 × [1])

[1]

		AVAILABLE MARKS
<p>(ii) Item can be tumble dried (1 × [1])</p>	[1]	
<p>(d) Suggest two pieces of advice Ellie should follow to help prevent the following minor problems in pregnancy. (AO2)</p>		
<p>(i) Constipation</p> <ul style="list-style-type: none"> • Drink 6–8 glasses of water/fruit juices/increase fluid intake • Eat fibre rich foods, e.g. white – wholemeal bread • Increase consumption of fruit and vegetables • Take gentle exercise • Change iron supplement/avoid iron supplements <p>(2 × [1])</p>	[2]	
<p>(ii) Varicose Veins</p> <ul style="list-style-type: none"> • Avoid standing for long periods of time • Avoid high shoes • Avoid sitting with legs crossed • Participate in gentle exercise to aid circulation • Sleep with legs raised up on pillows/rest legs • Try to stay a healthy weight in pregnancy • Wear support tights/compression socks <p>All other valid points will be credited (2 × [1])</p>	[2]	14

5 (a) List **two** possible sterilisation methods used when bottle feeding. (AO1)

- Cold water sterilising solution/chemical sterilisation/Milton solution/sterilising tablet
- Electric steriliser/steam steriliser
- Electrical steamer
- Microwave steriliser
- Boiling for 10 minutes

Steam = [0], Hot water = [0], Tablet = [0], Boiling = [0] Chemical = [0]

(2 × [1])

[2]

(b) Explain two rules to follow when preparing a formula feed for a newborn baby. (AO2)

Answers may address two of the following points:

- **Always use clean equipment** – wash hands before handling clean equipment, clean work area, ensure bottles have been sterilised prior to using to prevent bacterial being spread
- **Use boiled, cooled water** – leave to cool for less than 30 minutes. Boiling the water makes it sterile – water should not be reboil
- **Read and follow instructions on formula container** – use leveler on the formula container to level spoonfuls of powder – correct proportions are important to avoid overfeeding, dehydration or underfeeding/lack of nutrition/too rich in excess salt/damage to kidneys
- **Always put the water in first then add formula to avoid over concentrating** – shake well to mix the milk
- **Only make up bottles as required**, use at once, do not store prepared bottles/discard unfinished bottles/do not reheat in fridge – danger of food poisoning, dangerous to baby
- **Test temperature of the formula** on wrist to ensure it does not scald baby's mouth. Do not microwave = hot spots

(2 × [2])

[4]

(c) Analyse how alcohol consumption can affect the unborn baby. (AO2, AO3)

Answers may address the following points:

- Passes through placenta
- Heavy drinking can cause miscarriage, premature birth, increased risk of stillbirth
- Small birth weight baby
- During first 10 weeks of development of unborn baby, alcohol can cause malformations to the heart, limbs and facial disfigurements
- Damage baby's cells, affecting baby's organs, brain and baby's nervous system
- Foetal alcohol syndrome (FAS) – long term effects – learning difficulties, poor muscle tone and co-ordination, behavioural problems
- If mother is drunk she may be unsteady, could fall and harm baby
- Baby could suffer from lack of nutrients if mother has a poor diet, could affect development of foetus/poor growth and development of baby
- Baby could be addicted to alcohol/unsettled

All other valid points will be credited

[1]–[2] Basic points

[3]–[4] **Accurate and detailed** understanding

(1 × [4])

[4]

10

6 Sinead is pregnant with her **second child**. Evaluate a hospital birth for Sinead. (AO2, AO3)

Answers may address the following points:

Positive +	Negative -
<ul style="list-style-type: none"> • Trained staff available to help during labour and birth, will reassure mum, important if an emergency arises • Equipment for emergency use, e.g. incubator, facilities for Caesarean section if needed to save baby's or mother's life • Mother has opportunity to rest and relax after the birth, midwives are always available, there are none of the worries of home life • Visiting is restricted, mother will not be exhausted by too many visitors • Other mothers to share experiences and worries with, this can be comforting • A range of pain relief is available in hospital, e.g. epidural as anaesthetist is available • Mother feels more at ease and reassured that doctors and equipment is there, not as stressed • Mother and baby get "after care" if there are any problems, concerns – can discuss these with staff and other mothers/give mother time to recover from birth. 	<ul style="list-style-type: none"> • Sinead will need a babysitter for other child, may unsettle child and mum may worry, child will not be involved in birth and may feel left out and could make child feel more jealous of new baby • No privacy in hospital, lots of staff and patients around, strict routine for mum, e.g. meals, visiting times, may feel under pressure. • Hospital have their own procedures for labour and birth, stricter than at home – mum may feel less in control • Midwife may not be one she knows from during her pregnancy, could have several midwives she doesn't know, may be unsettling for mum • Distance from hospital may be a factor, mother could feel anxious. • Covid regulations - partner only present during some of the birth/ reduced visiting = lack of support

All other valid points will be credited

AVAILABLE MARKS

Level 1 ([1]–[2])

Overall impression: Basic

- shows limited knowledge and understanding
- identifies and comments on a few obvious points relevant to question
- a limited evaluation applied in simple terms to the question

Level 2 ([3]–[4])

Overall impression: Competent

- shows good knowledge and understanding
- identifies and comments on some key points relevant to the question
- a competent understanding of the advantages and disadvantages of a hospital birth

Maximum of 4 marks awarded if only positive or negative points discussed

Level 3 ([5]–[6])

Overall impression: Highly competent

- shows excellent knowledge and understanding
- identifies and comments on a range of points relevant to a hospital birth
- a highly competent evaluation with **reference made to the child at home**

(1 × [6])

[6]

6

7 Discuss the benefits of a young couple **planning** for a family. (AO3)

AVAILABLE
MARKS

- **Can plan for the cost of the baby and financial implications for the couple**, have time to save money, plan for less money coming in if both now work, have time to find out about benefits available and can decide how to cope with extra costs, e.g. equipment for baby
- **Can plan for changes to their house**, have time to consider moving to bigger house for more space/closer to primary schools, can extend the house or re-plan use of rooms for when baby is born/consider safety
- **Can prepare for pregnancy** – stop smoking and limit alcohol intake to increase sperm count, eat a balanced, varied diet, e.g. low in fat, include folic acid, take regular exercise, have a GP check up, e.g. immunity to Rubella, genetic counselling if there is a history of certain medical conditions, birth plan
- **Can plan work/childminding before they have baby**, have time to consider all options, e.g. working part-time, family support available, who will stay at home
- **Have control over size of family**, can plan when is the best time, can discuss number of children they would like, cultural influences
- **Can plan their social life**, e.g. talk about what they will still be able to do if they have a baby, may help them have less arguments when baby comes along and their life changes, can help ease them into changes that will happen
- Their **relationship could benefit** from them not rushing into having a baby, having time together as a couple and not feeling stressed or pressurised to have a family, will feel they both decided when to have a baby/emotionally ready, mature
- **Will be using contraceptives to try to avoid an unplanned pregnancy**, can be more relaxed with each other, plan number of children, gap between children
- **Couple can prepare home environment that will encourage SPICE development** – baby/young child can be provided with an environment that stimulates development. Parents can access information on parenting skills/activities/role in developing these skills
- **Can make decision about religion, culture, values and traditions** – less chance or arguments when the baby is born

All other valid points will be credited

(Answers must relate to the benefits for the

couple)

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

Level 1 ([1]–[3])

Overall impression: Basic

- shows limited knowledge and understanding of the benefits of planning for a family
- limited range of points, little or no explanation
- quality of written communication is basic

Level 2 ([4]–[6])

Overall impression: Competent

- shows good knowledge and understanding related to the benefits of planning for a family
- identifies and comments on some key points relevant to the question
- competent range of explained points with reference to benefits of planning for a family
- quality of written communication is competent

Level 3 ([7]–[9])

Overall impression: Highly Competent

- shows excellent knowledge and understanding related to the benefits of planning for a family
- identifies and comments on the key points relevant to the question
- quality of written communication is highly competent

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

changes to lifestyle = [0]

benefits of having a family = [0]

being young = [0]

(1 × [9])

[9]

9

AVAILABLE
MARKS

- 8 Explain how a pregnant woman can help prevent food poisoning when preparing and cooking her meals. (AO3)

AVAILABLE
MARKS

Answers may address the following points:

Preparing Meals

- Ensure work surfaces and equipment are washed and clean before preparing food
- Animals should not be allowed in the food preparation area, e.g. cats on work surfaces/cat hair in food/unclean paws/risk of toxoplasmosis/covering food e.g. flies
- Wash raw fruit and vegetables thoroughly/toxoplasmosis in soil/miscarriage, eye damage, hydrocephalus
- Check food labels for best before/use by dates to ensure food is safe
- Red lion stamp on eggs reduces salmonella
- Wash hands after handling raw meat, going to toilet/avoid salmonella which may result in food poisoning/miscarriage, premature birth
- Avoid cross-contamination when preparing food/using different coloured chopping boards for different foods/wash preparation equipment thoroughly/ prevent food poisoning
- Good personal hygiene, wearing apron, avoid cross-contamination/covering open wounds with plasters to prevent food poisoning infections which may lead to premature birth/prevent streptococci infection
- Do not prepare food if suffering from gastroenteritis/feeling unwell – increases risk of infection
- When preparing in advance, food should be stored at the correct temperature (1–4 °C) in a fridge
- Food should be defrosted thoroughly

Cooking Meals

- Always follow cooking instructions on food labels, recipes for cooking times and temperatures – ensures food is cooked thoroughly/cooking from frozen
- Cook meat thoroughly/prevent toxoplasmosis/leads to miscarriage, eye damage, hydrocephalus
- Cook poultry thoroughly/salmonella food poisoning/miscarriage, premature birth
- Avoid raw or softly cooked eggs/salmonella food poisoning/miscarriage, premature birth
- Ensure beef products are thoroughly cooked to prevent e-coli risk of miscarriage/premature delivery/stillbirth
- Reheat cook-chill products thoroughly/avoid salmonella food poisoning/ miscarriage, premature birth
- Do not reheat food more than once as it increases the growth of bacteria which may result in food poisoning
- Place leftover food in the fridge and consume within three days

All other valid answers will be given credit

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

Level 1 ([1]–[3])

Overall impression: Basic

- limited range of points, not all explained

- shows basic knowledge of hygienic food preparation and safe cooking procedures during pregnancy
- quality of written communication is basic

Level 2 ([4]–[6])

Overall impression: Competent

- good range of valid points with some explanation
- shows good knowledge and understanding of **hygienic food preparation and safe cooking** procedures during pregnancy
- quality of written communication is competent

Maximum of 5 marks awarded if only one aspect is discussed

Level 3 ([7]–[9])

Overall impression: Highly Competent FOR BOTH

- wide range of valid clearly explained points
- shows excellent knowledge of **hygienic food preparation and safe cooking** procedures during pregnancy
- quality of written communication is highly competent

(1 × [9])

[9]

Total

**AVAILABLE
MARKS**

9

75