

**Published Mark Scheme for
GCSE Home Economics (Child Development)**

Summer 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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New
Specification



Rewarding Learning

General Certificate of Secondary Education
2010

Home Economics: Child Development

Unit 1

assessing

Parenthood, Pregnancy and Childbirth

[GHC11]

FRIDAY 4 JUNE, AFTERNOON

**MARK
SCHEME**

1 (a) Label the diagram using the correct words from the box. (AO1)

(i) foetus

(ii) umbilical cord F A

(iii) placenta U C

(iv) amniotic fluid P

(v) cervix

(5 × [1])

[5]

(b) Write down **two** possible effects, **on a baby**, of a mother smoking during pregnancy. (AO1)

Answers may address the following points: no explanation required.

- stillbirth
- miscarriage
- small-for-date baby/low birth weight
- breathing problems/asthma/bronchitis
- foetal abnormalities/cleft palate
- premature birth
- possible learning difficulties/foetal brain damage
- passive smoking/crosses placenta
- risk cot death
- speeds up heat rate
- damage to placenta
- small baby = 0
- addicted to nicotine = 0

All other valid points will be given credit.

(2 × [1])

[2]

(c) Write down **two** possible causes of infertility (AO1)

Answers may address the following points: no explanations required

- blocked fallopian tubes/egg stuck
- cancer treatment
- smoking or alcohol or drugs
- too few sperm being produced
- failure to ovulate/unable to produce eggs/not egg released/hormonal problem
- cervical mucus too thick
- hysterectomy
- sexually transmitted diseases
- fibroids
- endometriosis
- age – fertility decreases with age
- blocked vas deferens

- testicular failure
- obesity
- cancer treatment/ovarian cancer
- cancer = 0
- overweight = 0

All other valid points will be given credit.

(2 × [1])

[2]

AVAILABLE
MARKS

9

2 (a) Complete the sentences below: (AO1)

(i) uterus

(ii) 40

(iii) breech

(iv) paediatrician

(v) ectopic

(vi) epidural

(6 × [1])

[6]

(b) Write down **two** methods of contraception (AO1)

Answers may address the following points: no explanation required.

- Abstinence
 - Implant
 - Withdrawal
 - Coil/IUD
 - Contraceptive injections / patch
 - Female / male sterilisation
 - Male condom
 - Female condom
 - IUS
 - Diaphragm /cap
 - Natural method / rhythm method
 - pill
 - mini pill
 - combined pill
- } (only award once)

All other valid points will be given credit.

(2 × [1])

[2]

(c) Describe the menstrual cycle (AO1, AO2)

Answers may address the following points:

28 day, monthly cycle/ lining of uterus breaks up/ ovulation day 13–15/
period, bleeding occurs/ uterus is being prepared to receive egg/
ovary releases the egg

All other valid points will be given credit.

Max 1 mark if just **name** phases

(1 × [3])

[3]

(d) Explain the role of the hormone oxytocin. (AO1, AO2)

AVAILABLE
MARKS

One explained point.

Answers may address the following points:

- maintains pace labour
- starts labour / contractions
- helps uterus contract
- in drip for induction
- returns uterus to normal size if breast feeding
- ripens cervix for dilation
- stimulates breast feeding

(1 × [2])

[2]

13

3 (a) Write down what happens during conception (AO1, AO2)

Answers may address the following points: no explanation required.

- intercourse occurs
- penis enlarges and deposits sperm in vagina
- sperm travels through uterus to fallopian tube
- **sperm meets egg in fallopian tube** / egg is fertilised in fallopian tube
sperm meets egg = 0 (must specify in fallopian tube)
- fertilised egg travels to uterus to embed.

All other valid points will be given credit.

(2 × [1])

[2]

(b) Below is a diagram of non-identical twins in the womb. (AO1, AO2)

Write down **three** differences between non-identical and identical twins **in the womb**.

Answers may address the following points: no explanation required.

- identical twins develop when a fertilised egg splits into two
- non-identical twins develop when two separate eggs are fertilised / two sperm fertilise two eggs
- identical twins share one placenta
- non-identical twins each have own placenta
- identical twins have same genes and always same sex /
non-identical twins not always same sex and have own genes } only one credit
- identical twins are enclosed in the same outer membrane / amniotic sac
- non-identical twins have separate outer membrane / amniotic sac

All other valid points will be given credit.

(3 × [1])

[3]

(c) Discuss **two** factors a couple should consider **when planning to start a family**. (AO1, AO2)

AVAILABLE
MARKS

Answers may address the following points:

- **Stable relationship** / commitment – should be able to give child love and care for it in a loving relationship, without arguments, need to support each other, their relationship may be under stress with lack of sleep etc
- **Financial considerations** – can couple afford baby, baby is expensive eg equipment required, child minding can be very expensive, need to consider their reduced income if mother not going to return to work. Will they need to move house to get more room for the baby, how will their lifestyle change to save money for the baby, what effect will it have on their leisure activities – will they still be able to afford to go to the gym, go out at weekends, have meals out
- **Career implications** – mother may not be returning to work, she may miss out on promotion, she may not be able to get or afford childminder and so may need to give up work, father may need to work longer hours to earn more money, may need to go for promotion to earn more money – more pressure on relationship
- **Available support** – need to consider what family and friends they have to help them eg for babysitting, for advice, for socialising, to take child to nursery school if needed, for childminding if they need it. Is there support at work eg maternity leave, paternity leave available, crèche available
- **Parental age** – are they mature enough to cope with a baby – are they prepared to give up their time to look after a baby, will they be prepared to put their needs to one side, are they too old to have a young baby – can they cope physically with a new baby, how will their lifestyle change
- **Cultural variations** – role of extended family, number of children in family
- **Home** – changes may be required – need to move house possibly / space for baby, pram etc / garden for baby
- **Pre-conceptual care** – changes to diet e.g. folic acid, need for exercise, controlling weight etc

All other valid points will be given credit.

(2 × [2])

[4]

9

4 (a) Describe the first stage of labour (AO1)

Answers may address the following points:

- A show occurs – small discharge of mucus mixed with blood
- Waters break – membranes rupture, amniotic sac bursts
- Regular or strong contractions start – every 20-30 minute intervals
- Cervix dilates
- Diarrhoea, backache or nausea
- Contractions = 0

All other valid points will be given credit.

(1 × [2])

[2]

(b) Describe what happens during a caesarean birth (AO1,AO2)

Answers may address the following points:

- an operation takes place – about 20 mins/ carried out by obstetrician
- epidural given by anaesthetist / numbs lower body
- incision made in abdominal wall into uterus / baby removed
- cord cut, placenta removed
- uterus and abdominal wall sewn up
- stomach = 0
- description of why = 0

All other valid points will be given credit.

(1 × [3])

[3]

- (c) John and Samantha have a 2 year old son who has special needs and uses a wheelchair. They also have a 3 year old daughter.

AVAILABLE
MARKS

Discuss the **possible impact, on their family**, of having a son with special needs.
(AO1, AO2, AO3)

Answers may address the following points:

Three explained points

- **Financial** implications – money for equipment he may need, changes may be needed to home eg doors widened /mother may leave work to look after him so less income / may need to pay for specialist childminder/need big car with room for wheelchair, two car seats
- **House** may need to be adapted eg door frames widened, ramps at front door, may need to move to a bungalow so there are no stairs
- **Daughter may feel neglected** and, or jealous as parents need to spend more time with their son / may become withdrawn or badly behaved / may become aggressive towards her brother, may feel he gets all attention / daughter will need to be tolerant of brother's needs
- **Family may be stressed** / relationships may suffer, may argue a lot, children may feel unloved, parents may not be sleeping much and may find physical jobs tiring, parents worry who will look after their son when they die, worry about his future
- **Not have much time as a family**, difficult to give time to both children, hard to find activities for both children to do together, daughter may have to compromise, may miss out, hard work getting both children ready to go out, parents have less time alone
- **May bring them closer together** – appreciate each other more, have fun as a family, realise need to appreciate time together
- **Difficult to plan days out**, some places may not have access for wheelchair, need transport for wheelchair and family. Holidays difficult.
- **Social life** may suffer / need to find and pay for babysitter (extra cost too) / won't be able to go out as much (stress on relationship possible)
- **Career implications** – may need to leave work, could affect career, may need restricted hours (less money)
- daughter may struggle to understand situation, may be sad that she can't play with her brother etc.

* Take care – don't award **twice** for same reason.

Annotate D

All other valid points will be given credit. **For full marks at least one point should refer to daughter.**

(3 × [2])

[6]

11

5 Rose is pregnant. Below is a typical lunch she enjoys.

AVAILABLE
MARKS

Evaluate **this** lunch for Rose. (AO1, AO2, AO3)

Grilled chicken and wholemeal bread	Soft cheese and biscuits
Low fat strawberry yoghurt	Glass of coke

Answers may address the following points:

Positive points

- chicken - protein – growth of mother and baby / roasted – low in fat – healthy guidelines, prevent weight gain and obesity
- wholemeal bread – carbohydrate – energy / NSP – prevent constipation, common in pregnancy, helps control weight gain as bread is filling / iron – prevents anaemia
- yoghurt – calcium – teeth and bone – protein – growth of mother and baby / low fat – help mother keep weight gain down – difficult to get weight off after birth
- biscuits – carbohydrate – energy / NSP – prevent constipation, common in pregnancy
- strawberry in yoghurt – one of recommended 5 a day / fruit provides vitamins, NSP
- ease of preparation – less standing time / use of energy / less equipment used (Max 1 point)
- if specify a processed, soft cheese e.g. dairylea, philadelphia can be credited for calcium, protein content

Negative points

- yoghurt – high in sugar – tooth decay – pregnant women weak teeth, weight gain obesity
- soft cheese – not recommended for pregnant woman – risk of listeriosis – dangerous for baby
- biscuits – high in fat – weight gain – difficult to get off after birth, risk of obesity / high in sugar – tooth decay – pregnant women weak teeth, weight gain obesity, gestational diabetes / high salt content
- coke –fizzy and high in sugar – risk tooth decay – pregnant women weak teeth, weight gain obesity / caffeine – can raise heart rate – not recommended for baby – limits for caffeine
- lacking in fresh fruit and vegetables – NSP / vitamin C
- lacking in iron – to prevent anaemia
- may be lacking in vitamin C – healthy placenta, mothers gums
- chicken – must be cooked thoroughly / food poisoning
- cheese = protein, calcium etc = 0 unless specify **processed**

All other valid points will be given credit

Level 1 ([1]-[3])

Overall impression: Basic

- Limited range of points, not all explained
- Shows basic knowledge and understanding
- Quality of written communication is basic

Level 2 ([4]-[6])

Overall impression: Competent

- Good range of valid explained points
- Shows good knowledge and understanding
- Includes some evaluation of the lunch
- Quality of written communication is competent

} Max 4 marks if only +ve or
-ve points + must be **highly
competent** QWC

Level 3 ([7]-[9])

Overall impression: Highly competent

- Wide range of valid well explained points
- Shows excellent knowledge and understanding for pregnancy – Rose
- Evaluates the lunch competently
- Quality of written communication is highly competent

Must give at least one positive & one negative point for level three

[9]

9

AVAILABLE
MARKS

6 Discuss the value of a first time mother regularly attending the antenatal clinic.
(AO1, AO2, AO3)

AVAILABLE
MARKS

Answers may address the following points:

- **Tests** carried out to reassure mother eg blood test for anaemia, blood group, rhesus factor, rubella, hep B, HIV / urine test to check for sugar and diabetes, protein and infection or pre-eclampsia
- **Blood pressure** checked at each visit– pre-eclampsia can be detected early – risk of death for baby and mother
- **Advice on diet** – midwives give leaflets and information about listeriosis, toxoplasmosis / nutrients needed + example / need for folic acid to prevent spina bifida / follow healthy eating guidelines + example
- **Advice from midwives** on how to deal with problems during pregnancy eg minor ailments, lifestyle + explanation
- **Meet other mothers** – get advice, discuss common problems, feel reassured not alone, talk about own experiences
- **Ultra sound scan** carried out – reassure mother that baby is developing normally eg weight, limbs / confirms expected date of delivery, lets mother know if multiple birth, checks position and function of placenta
- **Information on options for birth** – discuss types of birth available, if water birth available, see delivery rooms, understand what will happen when she is admitted
- **Information about pain relief available** – effectiveness of each and any after effects, procedure for epidural and when available
- **Write birth plan**, allow mum to make choices about birth and discuss options with staff eg who will be present etc.
- **Listen to baby's heartbeat** – check baby is alive and monitor regularity and strength of foetal heartbeat
- **Mother's weight** is checked, advice given, weight gain could be sign of pre-eclampsia, weight loss could indicate baby not growing
- **Opportunity for partner/father** to discuss concerns re baby's progress, discuss problems etc
- Classes = 0

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

- Limited range of points, not all explained
- Shows basic knowledge
- Quality of written communication is basic

Level 2 ([4]-[6])

Overall impression: Competent

- Good range of valid explained points
- Shows good knowledge and explains how this will benefit the mother
- Quality of written communication is competent

Level 3 ([7]-[9])

Overall impression: Highly competent

- Wide range of valid well explained points
- Shows excellent knowledge and explains clearly how this will benefit the mother
- Quality of written communication is highly competent

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

Must give at least one positive and one negative point for level 2

[9]

Total

**AVAILABLE
MARKS**

9

60

