



**General Certificate of Education**

**Health and Social Care  
8621/8623**

**HC04**

**Mark Scheme**

*2008 examination – June series*

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

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### **Quality of written communication**

The quality of written communication is assessed in all assessment units where candidates are required to produce extended written material. Candidates will be assessed according to their ability to:

- Select and use a form and style of writing appropriate to purpose and complex subject matter
- Organise relevant information clearly and coherently, using specialist vocabulary when appropriate
- Ensure that text is legible, and that spelling, grammar and punctuation are accurate, so that meaning is clear.

The assessment of quality of written communication must be included in question **4 (a) (ii)**.

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Mark scheme

Question 1

1(a) *The following are motor milestones achieved by most children during the first four years of life: threads beads, picks up small objects, shows the walking reflex, hops on one foot, climbs up stairs, turns door knobs. Identify three gross motor milestones from the list above, and write them in the order in which they occur (earliest first).* (6 marks)

1 mark each (up to 3) for picking out gross motor milestones, plus position marks as follows:  
If milestone is in the correct position, give 1 more mark each.

(Correct order) 1. shows the walking reflex (1) 2. climbs upstairs (1) 3. hops on one foot (1) plus 3 for correct position.

If fine motor milestones are given, only credit position.

If only one milestone is given and no position is suggested, give no position mark.

1(b) *Identify three fine motor milestones from the list above, and write them in the order in which they occur (earliest first).* (6 marks)

1 mark each (up to 3) for picking out fine motor milestones, plus position marks as follows:  
If milestone is in the correct position, give 1 more mark each.

1. picks up small objects                      2. turns door knobs                      3. threads beads.

If gross motor milestones are given, only credit position.

1(c) *Suggest three different types of play equipment that can aid a child's gross motor development.* (3 marks)

1 mark each for any three types of play equipment. Likely answers: slide, swing, climbing frame, ride-on toy, ball etc.

Question 2

2(a)(i) *Tanya is 7 years old. At her local park she takes turns in playing hopscotch with her friends. When one of her friends falls over, Tanya helps her to get up. Later another girl pushes Tanya to the ground. At school next day Tanya pushes another child over. A teacher sees this and tells Tanya that she must not push people. From the description identify one anti-social behaviour. (1 mark)*

Pushing (1)

2(a)(ii) *From the description identify two pro-social behaviours. (2 marks)*

Taking turns (1) helping (1)

2(a)(iii) *From the description identify two different agents of socialisation. (2 marks)*

Other children/peers (1); adult/teacher (1).

2(b) *Explain, using examples, two ways in which parents can help their children to develop pro-social behaviours. (6 marks)*

1 mark each for identifying ways (up to 2), plus 1 mark each for elaboration and 1 mark each for relevant example.

Likely ways are:

- Reinforcing prosocial behaviours;
- modelling prosocial behaviours;
- explaining/giving reasons for acting prosocially.

Do not credit the inhibition or punishment of anti-social behaviours.

2(c) *The park contains a paddling pool. Suggest two risks that might occur with this facility and outline how each risk could be reduced. (4 marks)*

1 mark each (up to 2) for risks, plus 1 mark each for appropriate method of reduction.

Likely answers:

- drowning – reduce water level
- injury from falls/slips – ensure edge/base of pool is non-slip when wet
- infectious disease – disinfect water/fence to keep animal away

Also credit adult supervision as one method of risk reduction (once only).

## Question 3

3(a)(i) *The table below records the heights of two children on four different occasions an 18 month period. The table also gives the mean expected height of children at these different ages. From the data in the table, draw conclusions about Janine's physical development.*  
(3 marks)

	Height (in centimetres) at different ages			
	6 months	12 months	18 months	24 months
Janine	68	78	83	88
Hayley	65	73	75	77
Mean expected height	65	75	80	85

1 mark per point up to 3. Likely points: Janine is slightly above the mean height (1) and remains above the mean height throughout the period (1). Her height increase during the period is the same as that of the mean (1). She gains height over the period (1).  
Credit correct statement about relative growth in two different periods (1).

3(a)(ii) *From the data in the table, draw conclusions about Hayley's physical development.* (3)

1 mark per point up to 3. Likely points: Hayley's height is normal/same as the mean at 6 months (1). She gains height over the period (1) but at a slower rate than normal/the mean (1).  
Her increase in height slows down after 12 months old (1).

3(b) *Name and outline three biological factors that might explain the difference in development between these two children.*  
(6 marks)

1 mark each (up to 3) for naming relevant factors, plus 1 mark each for explanation.

Likely answers:

Nutrition (1) plus explanation e.g. Hayley has some dietary deficiency/Janine has a higher intake of food (1)

Disease/disability (1) plus explanation e.g. Hayley had an illness that reduced her ability to absorb nutrients/build tissue (1).

Genetics/maturation (1) plus explanation e.g. Hayley's genes code for slight build/short stature/Hayley's maturation rate is slower than normal (1).

3(c)(i) *The mean data on heights at different ages was obtained from a longitudinal study. What is meant by a longitudinal study in this case?*  
(2 marks)

A study in which the same individuals/Janine and Hayley (1) are observed/studied at several different times during their development/on four different occasions (1).

3(c)(ii) *Suggest one other measurement of physical growth, apart from height.* (1 mark)

1 mark for any valid answer. Most likely answer is weight, but others are acceptable providing they are measurements e.g. girth.

## Question 4

4(a)(i) *What did Piaget mean by the term conservation?* (2 marks)

2 marks for accurate answer – understanding/knowning that (1) redistributing material does not affect its mass (or number or volume) (1).

Answers which are partly inaccurate, vaguely expressed, or which omit the understanding/knowning that element – 1 mark only.

4(a)(ii) *Describe one test of conservation. Include details of what the tester would do and say, and what response would be evidence of conservation.* (6 marks)

1 mark each (up to 6) for the following:

Naming type of conservation; Describing/drawing materials; initial state;  
first question; changed state; second question (which must be the same as the first to  
receive credit); conserving response.

Sample answer: Piaget tested conservation of volume (1) by using two identical beakers and a third beaker with a different cross-section (1). To start with the two identical beakers contained equal volumes of liquid (1). The child was asked "Is there the same amount of water in these two beakers or is there more in one than the other?" (1). Then the liquid from one beaker was poured into the third beaker (where it reached a different level) (1). The child was asked the same question again (1). If the child answered that there was the same, s/he had conserved (1).

Also accept tests of conservation of mass and number.

Faulty questions or faulty second questions such as "**Now** is there more in one than the other?" should not be credited.

**Quality of written communication:**

Answers not expressed in continuous prose, e.g. mainly in unexplained bullet points or answers featuring frequent errors in spelling/sentence construction/grammar so that meaning is obscured – maximum 4 marks.

Answers featuring repeated communication errors, but where meaning is still clear **or** answers that are rambling, long-winded and unfocused – maximum 5 marks.

4(a)(iii) *By what age are most children able to conserve?* (1 mark)

1 mark for answers ranging from 6 to 8 years.

4(b)(i) *Child development is influenced by nature and nurture. Outline what is meant by nature in this context.* (2 marks)

Genetics/DNA/inherited (1) the process of maturation/or description of (1)

4(b)(ii) *Describe the role of nurture in cognitive development. In your answer refer to at least one play situation.* (4 marks)

1 mark for evidence of clear understanding that nurture means the influence of environmental factors (1). Up to 2 marks for relating this to cognitive development – likely points: the presence in the environment of

materials that aid discovery learning/educational toys (1) and parents/adults who provide these opportunities/present challenges/provide support/scaffolding (1).

Plus 1 mark for relevant example e.g. play with beakers (leading to understanding of volume) (1).