

GCE

Critical Thinking

Unit 4 (CRIT4) Reasoning and Decision Making
Mark scheme

2770
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Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available from aqa.org.uk

Critical Thinking Unit 4 (CRIT4)

Marking methods

In fairness to students, all examiners **must** use the same marking methods. The following advice may seem obvious, but all examiners **must** follow it as closely as possible.

1. If you have any doubt about which mark to award, consult your Team Leader.
2. Refer constantly to the mark scheme throughout marking.
3. **Always** credit **accurate, relevant and appropriate** answers which are not given in the mark scheme.
4. Do **not** credit material irrelevant to the question / stated target, however impressive it might be.
5. If a one word answer is required yet a list is given, take the first answer (unless it is crossed out).
6. If you are considering whether or not to award a mark, ask yourself 'Is this student nearer those who have given a correct answer or those who have little idea?'
7. Read the information on the following page about levels of response mark schemes.
8. Use the full range of marks. Don't hesitate to give full marks when the answer merits them or give no marks where there is nothing creditable.
9. No half marks or bonus marks can be given under any circumstances.
10. The key to good and fair marking is **consistency**. Once approved, do **not** change your standard of marking.

Marking using CMI+

All GCE Critical Thinking papers are marked electronically using a software application called CMI+ (Computer Marking from Image). Instead of paper being posted to examiners, student responses are scanned and sent electronically. The software is easy to use, but demands a different approach.

1. Instead of marking paper-by-paper you will mark item-by-item. An item is a part-question. Each time you log on you will need to choose an item to mark.
2. Before you start marking your own items you will need to mark some pre-marked items known as seeds. These ensure you are still applying the same standard set during standardising. If you are not, you will need to speak to your Team Leader before you can continue marking in order to clarify the correct interpretation and application of the mark scheme.
3. Seeds will also appear at random intervals during your marking to ensure you are maintaining the correct standard. If your marking is out of tolerance for a seed you will be prevented from marking that item until your Team Leader discusses this with you and clears you. You will, however, be able to mark other items.
4. Some higher mark questions are Double Marked. This means that a certain number of answers that you mark will be marked by another person. If the marks are within tolerance of one another, the higher mark awarded is the mark the student will be awarded.
5. You can annotate items in various ways: underlining, highlighting and adding icons from a drop-down menu. Your Team Leader will tell you which types of annotation to use. Examiners must not add extra annotation as this can be confusing for teachers and students if they request Access to Scripts.

6. As you mark each response, enter the mark you are going to award in the box at the bottom of the screen. If you realise you have made a mistake you can go back one paper to change the mark.
7. Your assessments will be monitored throughout the marking period. This ensures you are marking to the same standard, regardless of how many clips you have marked or what time of day you are marking. This approach allows senior examiners to ensure your marking remains consistent. Your Team Leader can bring you back to the right standard should you start to drift.
8. If your marking of a particular item is out of line, your Team Leader will contact you as soon as possible to explain where differences are occurring and how this can be addressed.

Levels of Response marking

Levels of response marking requires a different approach than traditional 'point for point' marking. It is essential the **whole response is read** and allocated the level it **best fits**.

Marking should be positive, rewarding achievement rather than penalising for failure or omissions. The award of marks must be directly related to the marking criteria.

Use your professional judgement to select the level that **best** describes a student's work. Levels of response mark schemes enable examiners to fully reward valid, high ability responses which do not conform exactly to the requirements of a particular level.

If a student demonstrates knowledge, understanding and/or evaluation at a certain level, he/she must be credited at that level. **Length** of response or **literary ability** should **not be confused with critical thinking skills themselves**. A short answer which shows a high level of conceptual ability, for example, must be credited at that level.

Levels are tied to specific skills. Examiners should **refer to the stated assessment target** of a question (see the mark scheme) when there is any doubt as to the relevance of a student's response.

Levels of response mark schemes include either **examples** of possible students' responses or **material** which students might use. These are intended as a **guide** only as students will produce a wide range of responses to each question.

Assessment of Quality of Written Communication (QWC)

Where students are required to produce extended written material in English, they will be assessed on the quality of written communication.

Students will have to:

- ensure text is legible; spelling, punctuation and grammar are accurate and meaning is clear
- select and use a form and style of writing appropriate to purpose and to complex subject matter
- organise information clearly and coherently, using specialist vocabulary when appropriate.

Quality of written communication will be assessed in all units in this specification via Assessment Objective 3.

Critical Thinking Mark Scheme

INTRODUCTION

The nationally agreed **assessment objectives** in the QCA Subject Criteria for Critical Thinking are:

- AO1** Analyse critically the use of different kinds of reasoning in a wide range of contexts.
- AO2** Evaluate critically the use of different kinds of reasoning in a wide range of contexts.
- AO3** Develop and communicate relevant and coherent arguments clearly and accurately in a concise and logical manner.

- Marks are allocated to the assessment objectives according to the nature of each question and what it is intended to test.
- Candidates should be able to achieve the highest marks with a selection of relevant points, not necessarily the complete range.
- **Indicative content is provided as a guide for examiners. It is not intended to be exhaustive and other valid points must be credited.**

Critical Thinking Unit 4 (CRIT4) Mark Scheme

Section A

- 1 **You are a student who is part of a group that is trying to convince your school to set less homework. You are trying to gather information to convince your head teacher. Your friend has found the poll on the above website, and has suggested you use it to convince your head teacher that you should have less homework.**

Suggest two reasons why the results of this poll might not convince your head teacher to set less homework.

**[4 marks]
4 AO2**

Possible criticisms may include:

- Small sample – it is based upon just 34 votes. Given the number of children there are that get homework, this is too small a sample.
- Unrepresentative sample – it is not a survey of the students in your school, thus does not necessarily represent the opinions of the relevant students.
- The third option – ‘yes and no’ is vague. Does this support lowering the amount of homework or not?
- 60% saying yes is not much over half, and so might not be overwhelmingly convincing enough.
- Just because students think they should get less homework, doesn’t mean that they actually should! People do not always know what is best for them, and it is teachers’ responsibility to decide what is best for students’ learning.
- There is no way of knowing how much homework is given to the students who completed the poll. It may be a lot more than your school currently gives, and so these students may think that the amount you get is fine.
- Don’t know if it’s students responding. If it’s not, the poll is not representing students’ views.
- We don’t know if it’s 34 different people or someone has voted more than once. If it is not 34 individuals then the sample is even smaller and/or inaccurate.
- Any other valid answer.

Up to 2 marks per reason. Brief description (e.g. ‘small sample’) =1 mark; explanation of why it is therefore not a good reason (e.g. not representative given how many students get homework) = 2 marks.

2 Complete the decision tree diagram below using the information on page 4, and calculate the probable outcomes in terms of numbers of parents likely to attend.

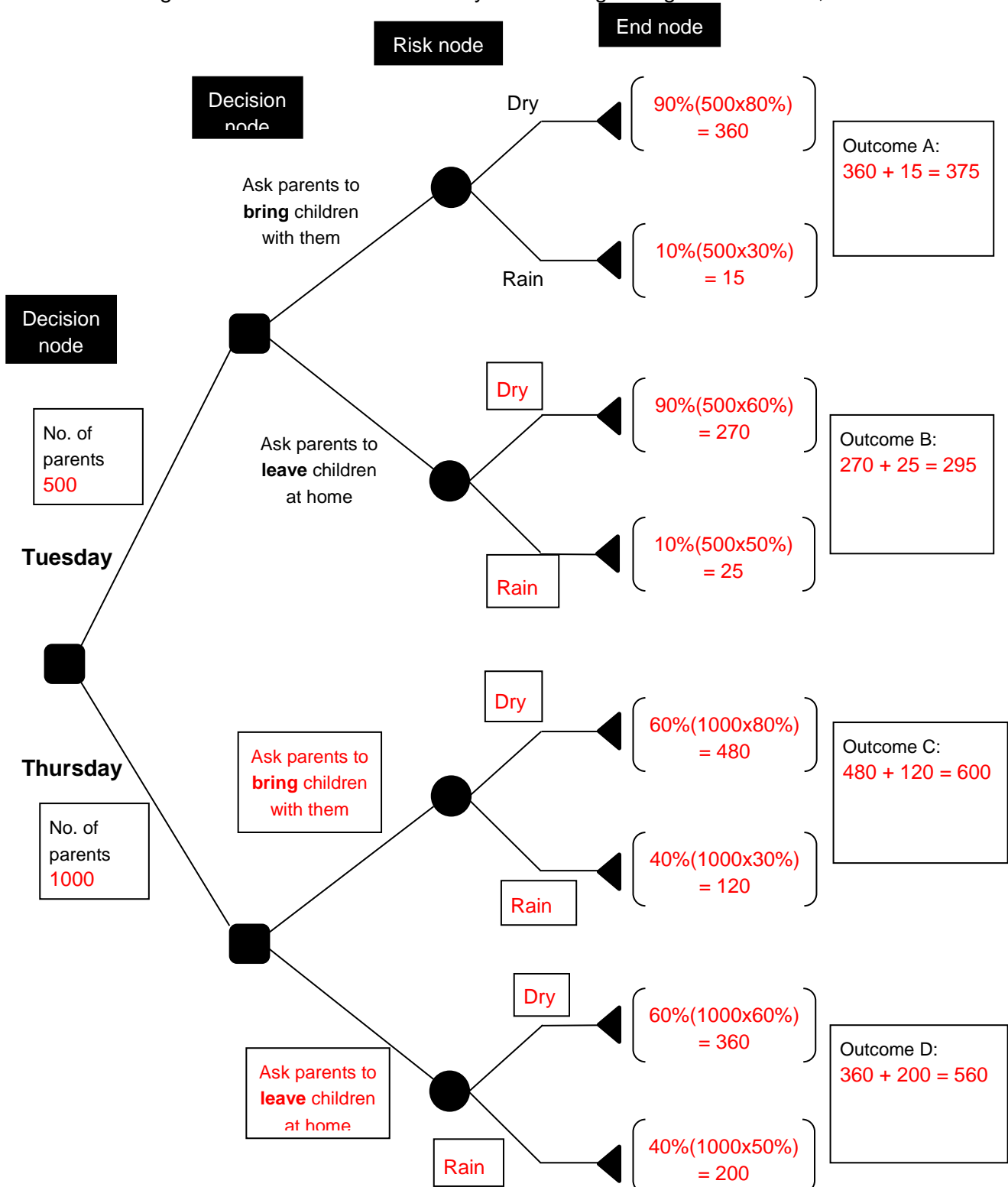
[9 marks]

5 AO1, 4 AO3

1–3 for evidence of understanding of the method.

4–6 for entering and processing some of the data correctly.

7–9 for entering most or all of the data correctly and making the right calculations, as below.



3 Use the diagram to judge whether to hold the meeting on Tuesday or Thursday, and whether to ask parents to bring their children with them or to leave their children at home.

State your judgement and a reason for it, based only on your calculated outcomes.

**[2 marks]
2 AO2**

1 mark for the correct answer based upon the *candidate's* calculations, + 1 for a supporting reason, i.e. that this option yields the highest probable number of parents attending.

On the basis of the statistical evidence the meeting should be held on Thursday and children should be invited, since this option yields the highest probable number of parents attending.

No mark for a lucky guess – i.e. if not supported by using decision tree.

Candidates **can** get both marks even if technically correct if they have come up with the wrong answer because of a simple calculative error.

Section B

Question 4 refers to Document A

4 Read paragraphs 2, 3 and 8.

In paragraph 8, the author of the article cites research that claims middle class and working class children have ‘unequal childhoods’ in terms of ‘good parenting practices’?

Do you think the author is suggesting that working class children or middle class children have the ‘better’ childhood in terms of ‘good parenting’?

Support your judgement with reference to the text of Document A.

[4 marks]
4 AO1

The authors suggest that middle class children have the better childhood.

Good answers will make a link between the claims in paragraph 8 – that middle class parents schedule more activities with the aim of enhancing academic development – with the claims in the paragraph 2 and 3 – that parents taking an active role in their child’s development, rather than passively letting them develop as part of ‘natural growth’, perform better academically.

Correctly identifying ‘middle class’. [1 mark]

Correctly identifying ‘middle class’ plus a reference to something in paragraph 8, e.g. because middle class parents play with their children more. [2 marks]

As above plus linking with research findings about parental involvement and academic achievement. [3–4 marks]

Answers which claim that working class children have the better childhood are unlikely to get any credit. Candidates may say things like working class children have more time to play on their own, and that this might make them happier/develop better. Whilst this may be true, it is not what the authors are implying.

Likewise, candidates may argue that academic success is distinct from a better childhood, however the question does not ask whether the author’s suggestion is justified, but rather simply what the author’s suggestion is. Max 2 marks for answers that are limited to such a response, but only if they identify that the author’s suggestion is “middle class”.

Question 5 relates to Document B

5 Which one of the three commenters – Joani, erikbloodaxe or moonunit – gives the most relevant response to the article?

Explain the reasons for your choice and state briefly why the others are less relevant, with reference to the text of Document B.

**[5 marks]
2 AO1, 3 AO2**

Moonunit's response is the most relevant, as it responds to Hollande's reasons for scrapping homework [1 mark] – that it will go towards creating equality for middle class and working class children. [1 mark]

The other comments respond only to his position. [1 mark]

Joani's comment is just an irrelevant appeal to history. [1 mark] or Joani's comment has already been discarded by Holland – his reasons are not about giving children more time to play outside [1 mark].

Erikbloodaxe says that he agrees with Hollande, but his reasons for doing so are not the same as Hollande's and so does not respond to the point of the article. [1 mark]

Question 6 refers to Document I

6 Re-read numbers 9, 10, 11 and 12 of the interviewer’s questions, and Kohn’s responses to these questions.

The title of the interview is ‘On how all that homework is hurting kids’.

In the claim ‘all that homework is hurting kids’ justified by Kohn’s responses to these questions?

Explain your answer with reference to these sections of the document.

[8 marks]

2 AO1, 4 AO2, 2 AO3

Good (7–8)	For relevant, perceptive, and <i>thoroughly</i> developed points which directly answer the question, and which show that the candidate clearly understands the issues; and for a clear and well supported judgement.
Intermediate (4–6)	For an appropriate response to the question, showing reasonable understanding of the issues involved and giving two or more relevant points of view which are likely to be partially supported / explained.
Basic (1–3)	For one or more relevant points related to the question, with some supporting or explanatory development.

The journalist/way the interview has been presented may make Kohn’s claims appear more extreme than they actually are: the title may be overly dramatic.

There is little evidence offered that homework *hurts* children. Rather, Kohn presents evidence that homework does not have the benefits that some assume that it does, and that what it is ‘hurting’ is children’s ‘disposition to learn’.

Examples include that there is no correlation between homework and performance at primary school age, and that the correlation at secondary school age may not be cause-effect.

He dismisses beliefs that have not been proved empirically as ‘urban myth’. However, he offers no empirical support for the conclusion that homework harms children.

He suggests that it infringes upon their ‘rights’ to do other things, that it is based upon a cynical view of children, but points to anecdotal evidence of family tensions – evidence that he presumably would not accept as evidence for homework improving children’s performance.

He talks of the ‘apparent effect’ on children’s love of learning, but offers no empirical support for this. Thus his view seems to be largely speculative. That homework does not improve performance does not entail that it ‘hurts’ children.

He says that it is ‘actively hurting their disposition to learn’ which may not mean that it is ‘hurting them’.

The journalist/way the interview has been presented may make Kohn’s claims seem more dramatic than they really are.

Section C

Questions 7, 8 and 9 relate to Document J

7 In paragraph 4, the author, Hilary Wilce writes:

The fuss stems from a book due out in the spring in which the American academic Alfie Kohn argues that the returns on homework are too small to warrant the family stress it causes, and that children would be better off having fun after school.

What assumption does Kohn’s argument make, according to Wilce’s above description of it?

**[2 marks]
1 AO1, 1 AO2**

The argument assumes that homework is not fun. [2 marks]

The argument assumes that children cannot do homework *and* have fun. [1 mark]

If this is expanded to demonstrate understanding that the homework itself could be fun, e.g. do homework and have fun *at the same time*. [2 marks]

Alternatively, it assumes that the ‘return’ is just academic. [2 marks]

8 **Does Wilce agree or disagree with Kohn’s conclusion that homework should be abolished?**

Support your answer with references to the text.

**[4 marks]
2 AO1, 2 AO3**

Wilce disagrees with Kohn's conclusion.

Although Wilce sees some merit in Kohn's arguments, she clearly does not think homework should be abolished.

Supporting evidence might be:

- She says that homework is not a waste of time (paragraph 3)
- She cites evidence that some homework is worthwhile (paragraph 5)
- She suggests that he is making an extreme claim in order to sell his book (paragraph 7)
- She shows concern at the idea of primary schools banning homework (paragraph 9)

Good 4	Realization that Wilce disagrees with Kohn with at least 2 strong supporting references from the text.
Intermediate 2-3	Realization that Wilce disagrees with 1 <u>strong</u> supporting ref/at least 2 <u>plausible</u> refs to text. If the candidate claims that Wilce agrees with Kohn, or agrees with him 'to an extent', then they have failed to understand the requirement of assessing agreement with the <i>conclusion</i> rather than the reasons. Maximum 2 marks if this is the response.
Poor 1	Statement that agrees/disagrees with at least a plausible attempt at justification.

9 Briefly explain, and critically evaluate, the reasoning in paragraphs 5 and 6.

**[6 marks]
3 AO1, 3 AO2**

Conclusion: The findings were a ‘thumbs up’ for common sense.

Argument:

Younger children benefit from reading, but not much else

Older children benefit from a moderate amount of homework

Homework isn’t going to turn an academically-poor child into an academically-gifted child

Some evaluative points – e.g.

Positive:

The argument assumes that the findings accord with common sense which seems reasonable.

Wilce bases her argument on the findings of the research and does not go beyond them.

Negative:

Wilce isn’t taking into consideration any of the reasons against homework.

Just because something is ‘common sense’ does not, of course, mean that it’s right.

Any other valid point.

Good 5-6	For at least 2 relevant, perceptive and developed evaluative points which demonstrate the candidate clearly understands the reasoning.
Intermediate 3-4	For at least two relevant explanatory/evaluative points which demonstrate reasonable understanding of the reasoning.
Basic 1-2	For one or more relevant points with some supporting or explanatory development. Could be explanation (not just the conclusion) without any evaluation.

10 You may use any of the source documents when answering Question 10.

Imagine you are a class teacher in a state-funded primary school in England. The children at your school come from a variety of backgrounds, and there is a range in success of children completing homework, with some completing everything without fail, and others consistently failing to do any of it. Your head teacher has asked all of the teachers to vote whether or not the school should set homework for its children.

The question on which you are asked to vote is;

Should our school set any homework at all for the pupils?

State whether you would vote yes or no. Give supporting argument for your decision by considering some of the possible consequences of each of the options.

Give further support for your decision by introducing:

- **values and principles that you consider relevant**
- **information from the source documents and/or your own knowledge or experience.**

Briefly but clearly explain your decision, and give your main reason(s) for reaching it.

**[26 marks]
26 AO3**

This task requires that candidates make a decision one way or another – this does not mean that they need to give a definitive argument for the merits or demerits of homework, as the situation requires that a decision between two options is made – there is no opt-out or sitting on the fence.

Expect a wide range of material to be used and a wide range of arguments. Students have many considerations to evaluate. For example, it may be that homework does not improve academic achievement, but it may be that it improves parent-school relationships, or vice versa – that it helps children’s learning, but damages home-school relationships.

This question is not asking for an answer on what anyone else should do, but on what the candidate would do in the situation.

Generic mark-grid for Question 10:

	Award level		
CRITERION: The candidate has:	<i>Thoroughly met, and presented in the context of a well-structured and clearly expressed argument</i>	<i>Satisfactorily or partially met with adequate expression and structure</i>	<i>Inadequately met. Basic response with some weaknesses of expression / presentation</i>
<i>identified appropriate choice consistent with their argument</i>	2	1	N/A
<i>identified a range of consequences which bear on the decision</i>	3	2	1
<i>presented an effective argument by considering the consequences in terms of their likelihood and importance – desirability, cost, benefit – and whether they count for or against each option</i>	5 – 6	3 – 4	1 – 2
<i>taken account of relevant values and principles</i>	5 – 6	3 - 4	1 – 2
<i>clearly articulated a decision, with summary of reasons</i>	3	2	1
<i>made good use of relevant source materials and introduced some relevant arguments of his or her own</i>	5 – 6	3 – 4	1 – 2

Distribution of marks across the questions and assessment objectives for Unit 4

AO Balance	AO1	AO2	AO3	Totals
Qu 1		4		4
Qu 2	5	4		9
Qu 3		2		2
Total Section A	5	10		15
Qu 4	4			4
Qu 5	2	3		5
Qu 6	2	4	2	8
Total Section B	8	7	2	17
Qu 7	1	1		2
Qu 8	2	2		4
Qu 9	3	3		6
Qu 10			26	26
Total Section C	6	6	26	38
Paper Total: [70] Marks	19	23	28	70
Paper Total: [70] Percentage	27%	33%	40%	100%