



General Certificate of Education

AS Archaeology 1011

**ARCH2 Archaeological Skills
and Methods**

Mark Scheme

2009 examination - June series

This mark scheme uses the [new numbering system](#) which is being introduced for examinations from June 2010

The specimen assessment materials are provided to give centres a reasonable idea of the general shape and character of the planned question papers and mark schemes in advance of the first operational exams.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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SECTION A

Question 1

01 Study **Figure 1** and use your own knowledge.

Outline the advantages and disadvantages of the excavation strategy illustrated.

(12 marks)

(Target AO1: 12)

L1: Poorly developed and/or listed/thin points.	1-2
L2: More detailed generic or undeveloped points clearly linked to techniques or source.	3-6
L3: Developed points linked to source or technique(s) illustrated.	7-9
L4: Well-developed points linked to technique(s) illustrated utilising source via contexts/conventions.	10-12

NB1: markedly unbalanced responses will be credited in the level below.

NB2: deduct one mark for responses in L3 and L4 that do not name appropriate technique.

Guidance:

Technique; box grid, open area, step trenches, section and plan, baulk.

Advantages; good for capturing complex stratigraphy; importance of XYZ recording of data; small dedicated areas give focus; ease of site movement (barrow runs).

Disadvantages; material buried under baulks; slow; baulks can collapse, expensive on man power, correlation between boxes can be difficult.

Question 2

02 Study **Figure 1** and use your own knowledge.

Describe and explain the surveying and recording techniques illustrated.

(6 marks)

(Target AO1: 6)

L1: Thin description with no explanation or an appreciation of the technical terms/equipment.	1
L2: One method identified and partially explained or 2+ techniques identified but not explained.	2
L3: One method identified and well-explained or 2+ methods identified and partially explained.	3-4
L4: Fuller description and explanation.	5-6

Guidance: to access L4 2+ techniques need to be considered.

Expect: levelling-in finds; use of planning frame; EDM; dumpy level; ranging pole; drawing; how these techniques are carried out.

NB: credit any sensible method that could be occurring in photograph, e.g. photography, context sheets, GPS.

Question 3

03 Study **Figure 2** and use your own knowledge.

Explain how archaeologists recover environmental evidence such as these fish bones.

(6 marks)

(Target AO1: 6)

- L1: Thin response (e.g. 'sieving', 'with a trowel'). **1**
L2: Description of appropriate technique(s), with no appreciation of the size of the evidence **or** partially accurate description with some appreciation of the size of the evidence. **2-4**
L3: Description of appropriate technique(s) with sound appreciation of the size of the evidence. **5-6**

Guidance: wet sieving is the most appropriate technique, but flotation also acceptable. Column samples. Answers that are obviously only considering dry sieving cannot get higher than Level 2.

Question 4

04 Study **Figure 3** and **Figure 4** and use your own knowledge.

Why do archaeologists produce both drawings and photographs of artefacts such as these? (6 marks)

(Target AO1: 2; AO2: 4)

- L1: Generic and/or thin photo vs. drawn list-type response. **1**
L2: Some appreciation of sources or fuller generic response. **2-4**
L3: Fuller response with appropriate reference to the sources or very good generic response. NB: must include reference to source for 6 marks. **5-6**

Guidance:

Photo: no bias; quick; accurate; shows actual texture/nature of find; does have scale; more realistic 3D feel **but** shadow; reflection.

Drawing: scale; conventions; picks out key aspects of texture; easier to reproduce and store; archaeologists look carefully at feature; need for skilled draftsman.

Question 5

05 Study **Figure 3** and **Figure 4** and use your own knowledge.

Outline the techniques that archaeologists can use to understand how these artefacts were made and used. (10 marks)

(Target AO1: 10)

- | | | |
|-----|---|-------------|
| L1: | Low level general response with no technical language. | 1-2 |
| L2: | More substantial general response with some attempt to use appropriate technical language (if limited reference to axes is made 5 marks could be accessed). | 3-5 |
| L3: | Good general response with some attempt to use appropriate technical language and some limited reference to axes. | 6-8 |
| L4: | Good general response clearly focused on axes (good use of appropriate technical language required for 10 marks). | 9-10 |

Guidance:

NB: no more than Level 3 (7 marks) if ONLY made OR used are addressed.

Expect: use-wear/microwear; refitting; experimental knapping; experimental butchery; analysis of site formation processes; ethno-archaeology, etc.

Question 6

06 Study **Figure 5** and use your own knowledge.

Explain what archaeologists mean by: Layer, NISP and MNI. (6 marks)

(Target AO1: 6)

- | | | |
|-----|------------------------------------|----------|
| L1: | Partially accurate description. | 1 |
| L2: | Accurate description/correct name. | 2 |

(As above for each term) 3 x 2 = 6

- (i) Layer; refers to stratigraphic layer/context in which the finds were located.
- (ii) Number of Individual Specimens (allow number of identified specimens); number of fragments recovered.
- (iii) Minimum Number of Individuals; single bone identified for each species; quantified/counted to arrive at least number present.

Question 7

07 Look again at the **Introduction, Figures 1 to 5** and use your own knowledge.

Given that the evidence at Boxgrove is 500 000 years old, describe the methods that are applicable for dating the site and the associated finds. (6 marks)

(Target AO1: 6)

- L1: List and/or poor description of 1–2 relevant techniques **or** limited development of 1 technique. **1-2**
- L2: More accurate description of technique(s) with limited appreciation of the type of site **or** a list of 3+ relevant techniques (max 3 marks). **3-4**
- L3: Accurate description of relevant techniques with an appreciation of the site/sources. **5-6**

Guidance: +1 mark for expanded comment that discounts certain methodologies, such as carbon dating.

2 techniques need to be properly considered for 6 marks.

Expect: stratigraphy (references to deep sediments, etc.); typology (reference to artefacts); thermoluminescence acceptable, although not actually used on this site; accept but do not expect faunal dating. Credit any other technique that could feasibly have been used if justified within the answer, e.g. Darwinism.

NB: some candidates that have studied the site more directly may refer to amino acids ‘the vole clock’ – although not listed on the specification these can be accepted but not expected.

Question 8

08 Only one hominid tooth and one hominid shin bone were recovered from Boxgrove. What might archaeologists learn from studying these remains? (8 marks)

(Target AO1: 2; AO2: 6)

- L1: List/thin description. **1-2**
- L2: Partial explanation (balance required for 6 marks). **3-6**
- L3: Developed explanation (balance required for 8 marks). **7-8**

Guidance: for top of Level 2 and Level 3 responses must also consider the antiquity and/or possible condition of the finds.

Obviously generic responses considering the whole skeleton cannot exceed L1.

Allow techniques such as isotope analysis where it could be unreasonable for AS students to appreciate their value on a site of such antiquity.

Consider +1 mark if responses draw upon relevant case study material.

Expect: diet; age; build; sex; lifestyle; environment; adaption to climate; stage in evolution.

Unit ARCH2: Marking Section B essays

The knowledge-based approach of this section enables candidates to select content from a wide variety of contexts. As a result, highly specific mark schemes are inappropriate. The scheme must be sufficiently flexible that it can embrace whatever case studies that teachers and candidates may select to study in that particular year.

Marking guidance therefore falls into two main types. A broad hierarchy of levels based on the assessment objectives for all essays and then exemplification for each particular question. In the latter case the contexts and lists of expected content are simply for the sake of illustration. There are many other sets of evidence, which would provide equally good answers.

The balance of assessment objectives on this section between AO1 and AO2 is 33.3:66.6. The primary aim of the assessments is to test candidates' understanding of key techniques and issues in practical archaeology (AO2). Depending on the questions chosen they will focus, to a greater or lesser extent, upon the basis of archaeological knowledge, its limitations, and the nature of the factors affecting continuity and change in the past. Understanding of AO1 will also be a key factor in differentiating responses.

Good examining is, ultimately, about the consistent application of judgement. Levels of response mark schemes provide the necessary framework for exercising that judgement but cannot cover all eventualities. Where you are very unsure about a particular response, refer it to your team leader.

Generic Essay Levels Mark Scheme

Below Level 1 0 marks

Answers with no merit or relevance to the question set.

Responses at this level may be of reasonable length and may contain archaeological examples and material but they will not respond to demands of this specific question. The candidate may have incorrectly interpreted a concept or simply responded to a word or phrase in the question by writing all they can think of about that 'trigger'.

Level 1 1-6 marks AO1 (2) AO2 (4)

Weak or undeveloped answers.

Either: A Responses at the bottom of this level (1-3 marks) may provide some information which could be relevant to the question but it will be undifferentiated from irrelevant or inaccurate material – in other words it will randomly rather than purposely linked to the question. More typically (4-6 marks) the candidate will demonstrate some understanding of the thrust of the question but is unable to respond in an adequate manner. Some understanding may be shown by the selection of relevant material although this will be presented in a 'scattergun manner' with little discrimination, explanation or attempt to use it as part of a logical argument. The account will be superficial and may be within the context of a purely narrative or descriptive framework.

Or: **B** Alternatively the response may consist of a very weak description of technique(s) or a very thin account of a site(s), some of which may be relevant to the question but which are undeveloped. Nevertheless, some of these could have been developed into higher level responses.

At Level 1, where candidates submit full essays they are likely to display poor communication skills, work being characterised by disjointed prose, poor organisation and frequent lapses of spelling and grammar. This level also includes responses which do address the question but are only a few sentences in length or undeveloped lists or plans which had the potential to become higher level answers.

Level 2 7-12 marks: AO1 (4) AO2 (8).

Limited responses with some merit.

Either: Responses which demonstrate understanding by including some material relevant to the question. However, it is likely that the candidate has been unable to organise their work successfully in order to meet the demands of the question. Typically this may include the very basic description of techniques with little or no exemplification. Understanding of the issues in the question will be simplistic and there will be very little assessment of the data which will often be presented in a descriptive format.

Or: **B** Answers which do address the question and demonstrate some understanding of the issues, perhaps making several valid points. However, there will be very little or no relevant archaeological examples or explanation of technique(s) to support their case.

At Level 2, candidates are likely to display some poor communication skills. Some of their work may be characterised by disjointed prose, poor organisation and frequent lapses of spelling and grammar. This level also includes good, detailed essay plans and promising essays which have not been developed (e.g. very brief or truncated).

Level 3 13-18 marks: AO1 (6) AO2 (12).

Sound responses.

Either: **A** Responses which largely contains material relevant to this question and where the candidate has begun to organise and structure their work successfully in order to meet its demands. This may be of similar depth to Level 2 responses but will be largely focussed on issues raised by the question. Introductions and conclusions are likely to be limited at this level and appraisal will be simple.

Or: **B** Answers which address the question and demonstrate a reasonable understanding of many of the issues it raises. They will be able to reach sensible conclusions but provide limited explanation of archaeological technique(s) to support their case.
Include at this level: responses which are of Level 4 or 5 quality but which have only addressed half of a question which contains two main elements; good generic responses which include no exemplification; detailed accounts of archaeological sites which only partially address the question.

At Level 3 communication skills may remain limited and may be adequate at best. At the lower end of the level spelling and grammatical errors are likely to be frequent and answers will show

limited powers of organisation. At the higher end there may still be insecure structuring of paragraphs and weaknesses of expression breaking the flow of the answer.

Level 4 **19-24 marks: AO1 (8) AO2 (16).**

Good responses.

Either: A Responses largely containing well focused, relevant material organised in the form of 1-2 explanations of techniques or a range of 3+ with some limited development. Reasonable exemplification will be present. The response must reach some conclusions – perhaps in the final paragraph. Depth of understanding of terms may be very good but commentary and argument will be underdeveloped.

Or : **B** Well-focused responses which address the question directly and demonstrate a good understanding of the issues raised by it. The account is likely to have a coherent structure and may be argued consistently. However, explanations of techniques will still be limited despite being supported by some examples. Detailed appraisal of specific techniques will not therefore be possible.

At Level 4 communication skills will generally be sound. Though spelling and grammar will be secure there may still be lapses with technical vocabulary. Organisation will be sensible but there may be passages of less well directed writing or an overly schematic approach.

Level 5 **25-30 marks: AO1 (10) AO2 (20)**

Very good responses.

Either: A Responses containing considerable, well focused relevant material either in the form of 1-2 detailed explanations of techniques or a range of 3+ with relevant development. (Expect the equivalent of a couple of sentences on each.) Analysis will be present although at the bottom of this level this will not necessarily be consistent and not all the data will be necessarily appraised. Exemplification will be sound. Evaluation and assessment of the relative merits of different sources and lines of argument will be present. A conclusion will be reached about the main element in the question.

Or: **B** Responses which address the question directly and precisely, and demonstrate a very strong understanding of the issues raised by it. The account will be well-structured and should be argued consistently. Appraisal of specific case studies via supporting evidence will be sound.

At Level 5 communication skills will be generally effective and organisation clear and logical. Spelling and grammar will be sound, though there may be occasional errors.

Deciding on marks within a level

One of the purposes of examining is to differentiate between responses in order to help awarders distinguish clearly and fairly between candidates. We want to avoid too much “bunching” of marks which can lead to regression to the mean. A key element here is the way examiners approach the work. Given the constraints of time and circumstance, candidates will not produce perfect work. Ideally you should take a ‘cup half full’ rather than ‘cup half empty’ approach to responses above Level 2. This should help you to use the full range of marks available. Start by allocating the essay to the level which best describes it even though it may not be a perfect fit. If you really cannot decide between a level, award the response the top mark of the lower level where the decision is between levels 1-2 or 2-3 and at the bottom of the higher level in all other cases.

Where you are confident about a level, you should start by placing the essay on one of the middle marks for that level. Next consider whether you feel that mark to be about right, slightly generous or slightly harsh in comparison with other responses at that level. In the latter cases move the essay out to the lower or higher mark in the level. In making decisions away from the middle of the level, examiners should ask themselves whether the response is:

- Precise in its use of factual information?
- Technically accurate?
- Appropriately detailed?
- Factually accurate?
- Appropriately balanced, or markedly better in some areas than in others?
- Generally coherent in expression and cogent in development (as appropriate to the level awarded)?
- Well-presented as to general use of syntax, including spelling, punctuation and grammar?

The latter two points indicate how the candidate’s quality of written communication might influence the award of marks within a given level of response and complement the information given elsewhere.

Question 9

- 09** Boxgrove is a research project. Using examples, explain the similarities and differences between rescue and research projects. (30 marks)

Use generic levels mark scheme

Indicative content

Responses are likely to draw upon well known case studies that are available on video. Research project examples could be such sites as Sutton Hoo or Silchester Insula IX, with rescue projects likely to reflect either local archaeological case studies that the students have observed/assisted or the Time Team/MoLAS Big Roman and Canterbury excavations.

Expect:

Research: more funding; larger scale; longer time scale; sampling lead by research agenda; more pre-excavation work; pioneering new ideas/techniques; training opportunities; linked to university department; etc.

Rescue: developer funded; restricted time scale; fewer opportunities to train; less time to carry out pre-excavation work; sampling determined by planning agenda; often encourages innovative approaches; can become a research project.

Question 10

- 10** Explain how an understanding of site formation processes can enhance knowledge of sites such as Boxgrove. (30 marks)

Use generic levels mark scheme

Indicative content

Responses are likely to define Cultural and Natural Transforms giving examples of each related to archaeological sites that students have studied. They are likely to consider: differential preservation; the role of water and other natural forces; animal activity; how material is moved; soil/sediment formation; importance of context and association; activities of hominids and animals in the past. Expect Boxgrove and Olduvai Gorge to be considered as case studies (the former being well represented in texts and on video and the latter being a past ACH2 paper).

Question 11

11 How useful are desk-top research and pre-excavation techniques when preparing to excavate a site such as Boxgrove that until recently was deeply buried? (30 marks)

Use generic levels mark scheme

Indicative content

Responses to this question should discuss both desk-top sources and pre-excavation techniques. The most relevant ones in a case such as Boxgrove will probably be:

Desk-top sources

SMR/HER
 Records for capital RCHME or EH
 Reports on other sites of equivalent age/nature

OS maps
 Geological maps

Pre-excavation techniques

Ground penetrating radar
 Resistivity (for old river channels)
 Aerial photography (for contextualising the landscape in which the site sits)
 Field walking

Candidates who try to confine their answer to Boxgrove/deeply buried sites may well also explain why other sources/techniques are not relevant. This could contribute to a candidate achieving L4 or L5. Differentiation will be evident where candidates discuss the appropriateness of such sources and techniques – inappropriateness is part of the answer.

Other candidates might approach the question more generically, considering the range of sources/techniques available to archaeologists for sites generally. Such answers may include Boxgrove amongst other examples. If Boxgrove/deeply buried sites are not specifically referred to then top L4 maximum.

NB: a Boxgrove focused approach may prove to be more difficult than a generic one, consequently arguments may not be so fluent, QWC not so accomplished and relevance/connections less confidently promoted. This should not result in marks being withheld.

Marking Grid

Question Number	AO1	AO2
9	10	20
10	10	20
11	10	20