



**General Certificate of Education
June 2010**

AS Archaeology

1011

Archaeological Skills and Methods

ARCH2

Final

Mark Scheme

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.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' 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.

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SECTION A

Question 1

Study the **Introduction** and use your own knowledge.

Which desk-top sources could the archaeologists have consulted prior to carrying out fieldwork at Town Farm Quarry, and why? (6 marks)

(Target AO1: 6)

- L1: List. Specific source needed for 2 marks. **1-2**
 L2: Generic sources plus sound explanation **or** specific sources with thin explanation. **3-4**
 L3: Specific sources with sound explanation. For 6 marks some reference to introduction. **5-6**

NB: For 4+ (4 marks or above) must mention SMR/HER etc.

To access L3, at least 3 sources must be considered.

Responses could include: Devon SMR to obtain overview of prior work; previous site reports; recent air photographs; maps (OS, tithe, estate, etc.) to pick out features/field boundaries, etc. Accept chatting to locals.

Specific sources refers to **named** types of map (e.g. tithe; estate; enclosure); named types of book (e.g. VCH; Domesday). Less appropriate e.g. county maps of Speed and Morden.

Question 2

Study the **Introduction**, **Figure 1**, **Figure 2a**, **Figure 2b**, **Figure 3** and **Figure 4** and use your own knowledge.

Which geophysical survey techniques are most likely to have revealed the features illustrated, and why? (10 marks)

(Target AO1: 10)

- L1: Vague and/or listed/thin generic points. **1**
 L2: More detailed generic points **or** partially developed points linked to source. **2-4**
 L3: Developed points linked to source(s) but not considering why techniques might not be appropriate. **5-7**
 L4: Developed points linked to source(s) also considering why techniques might not be appropriate. **8-10**

Guidance: Magnetometers for burnt mounds, pits and troughs; resistivity for pits, troughs and stones; GPR may pick up stratigraphy illustrated in the section; location of springhead.

However, resistivity may not be wholly effective on a wetter site; smaller features may not be effectively located; GPR may be ineffective due to similar soil densities. Accept dowsing for spring head if qualified.

Question 3

Study **Figure 4** and **Figure 5** and use your own knowledge.

How might the archaeologists overcome the challenges faced when excavating and recording these wooden features? (12 marks)

(Target AO1: 12)

- L1: Thin description of issues without an appreciation of the solutions **or** vice versa. **1-3**
 L2: Both parts of L1 **or** fuller description of the issue **or** fuller description of the solutions. **4-6**
 L3: Fuller description of the issues together with limited appreciation of the solutions **or** vice versa **or** fuller appreciation of 1-2 issues together with their solutions. **7-9**
 L4: Fuller appreciation of 3+ issues and their solutions. **10-12**

NB: sources need to be considered to access 6+ marks.

For 8+ candidates must consider excavation and recording.

For 8+ there must be an appreciation that this is a waterlogged feature.

Guidance:

Issues: Drying out and/or decay of wood; compression/contraction; fragile artefacts; trowel scratching wood; heavy waterlogged soil; difficulty in observing stratigraphy; messy environment for recording.

Solutions: Duck boards; suspending excavators above trenches; misting the site; blunt, rounded tools. More on recording of these artefacts themselves, e.g. illustrating, recording, woodworking techniques and marks. Types of wood.

Question 4

Study **Figure 1**, **Figure 4** and **Figure 5** and use your own knowledge.

Describe and explain the processes by which archaeologists could have extracted environmental evidence from this site. (8 marks)

(Target AO1: 8)

- L1: Thin response, e.g. 'sieving'; 'with a trowel'; 'taking a soil sample'. **1-2**
 L2: Description of one appropriate technique, or thin comment on more than one technique. **3-5**
 L3: Description of more than one appropriate technique. **6-8**

For top L3 candidates need to consider extraction of sample and extraction of environmental evidence from the sample.

Guidance: Block, auger, core, column samples leading to wet sieving is most appropriate technique, but flotation also acceptable.

Question 5

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

Outline the sequence of events in feature 658. (6 marks)

(Target AO1: 6)

- L1: Simple appreciation: pit dug – filled in, but limited use of context number. **1**
- L2: More complex appreciation of sequence. Explanation need for 4 marks. **2-4**
- L3: Significant use of context numbers to demonstrate sequence. Explanation needed for 6 marks.

Explanation needed for top of L2/3

Guidance: 658 dug; appreciation that 474, 475, 483 could be next (laid at bottom); appreciation that 471 or 472 probably next (as they overlay early features); appreciation that some fill has got in prior to 450, 469.

Credit responses that are logical and possible. **5-6**

Question 6

Study **Figure 4** and **Figure 6** and use your own knowledge.

What information, other than dates, can archaeologists derive from the study of artefacts such as those illustrated? (8 marks)

(Target AO1: 8)

- L1: List of possible information. **1-2**
- L2: Thin outline of possible information with limited use of sources **or** fuller generic response. **3-4**
- L3: Fuller response with some reference to sources. **5-6**
- L4: 3+ pieces of information, clearly referenced to source. **7-8**

Guidance: Grain gives environmental information (linked to tree rings); tree species identification – environmental reconstruction; tool marks/processing skills; joinery skills; wear compared to replicas; may have had previous uses.

Question 7

Study **Figure 7** and use your own knowledge.

What did the archaeologists do to arrive at the information shown? (10 marks)

(Target AO1: 10)

- L1: Description of source (max 1) **or** very thin description of techniques without the use of technical terms. **1-2**
- L2: Thin responses using **either** some use of technical vocabulary **or** reference to the source. **3-5**
- L3: More detailed responses using appropriate technical vocabulary and appropriate use of source. **6-8**
- L4: L3, but must include oak/calibrated species and need for 50+ rings. **9-10**

NB: Candidates must refer to dendrochronology by name to access the top mark in a level.

Guidance: Sample taken either by sawing off a section of wood or coring; rings examined and measured under a microscope; sequence arrived at compared to a master sequence for the region; calibration; must be Oak as an absolute date has been provided; presence of sapwood means that outer rings are present so t.p.q. for felling date can be determined; need at least 50 rings; no sapwood present means this cannot be determined, hence 'after AD 580', etc.).

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: A 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, 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 8

Describe and explain the various on-site and off-site conservation techniques that can be used on organic remains. (30 marks)

Use generic levels mark scheme

Indicative content

Responses are likely to draw upon well-known case studies that are available on video. Expect, but do not demand, examples from such sites as The Mary Rose, Flag Fen, Boxgrove, Oetzi the Iceman, local archaeological case studies that the students have observed/assisted or the various Time Team excavations.

Responses should consider keeping material damp through misting; placing finds in water tanks; placing finds in refrigerated conditions (all passive conservation). Washing with distilled water; use of PEG; temperature controlled storage; treatment/removal of fungal infestations; removal/destruction of pathogens.

Must consider on and off site to access Level 4 and above.

Question 9

Outline the information that archaeologists could derive from the analysis of micro-floral and micro-faunal evidence. (30 marks)

Use generic levels mark scheme

Indicative content

Responses are likely to draw upon well-known case studies that are available on video. Expect, but do not demand, examples from such sites as Boxgrove, Oetzi the Iceman, local archaeological case studies that the students have observed/assisted or the various Time Team excavations.

Expect discussions to focus around beetles and molluscs, with the emphasis being on micro/macro environment, diet, human inhabitation, etc. Some responses may also consider pests and parasites such as worms, flukes, etc. Students will discuss abundance, environmental sensitivity, durability, ability to match to reference collections, etc.

Must consider floral and faunal evidence to access Level 4 and above.

Question 10

Describe and explain how archaeologists organise and carry out the recovery of finds from the surface of fields. (30 marks)

Use generic levels mark scheme**Indicative content**

Responses to this question are likely to consider fieldwalking on ploughed land, but the recovery of information from the surface of pasture is also admissible. Answers should consider the whole process in detail, from the pre-planning stage (map work, timing, permission, etc), to the planning stage, getting the required equipment and resources, gridding out, walking, recovery, plotting, etc. Candidates are likely to include localised examples, either from class projects and/or coursework.

Must consider organisation and process to access Level 4 and above.

Marking Grid

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