

**General Studies**

Advanced GCE

Unit **F734**: Culture, Science and Society: Making connections

**Mark Scheme for January 2013**

---

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of candidates of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, Cambridge Nationals, Cambridge Technicals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support, which keep pace with the changing needs of today's society.

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

© OCR 2013

**Annotations**

<b>Annotation</b>	<b>Meaning</b>
Yes	recognises a point worthy of credit
Dev	a developed point or development of a point
No	a content error
NAQ	not answering the question
Eg	appropriate examples
Sp/G/Eng	spelling, grammar and language error; you are not expected to correct all of them
(...)	indicates a choice or a key phrase OR
Key	written beside an underlined choice or key phrase
Rubric	rubric infringement
D	description
R	reason
Rep	repetition, often of the question
Ev	evaluation

**Subject-specific Marking Instructions****Assessment Objectives****AO1 Demonstrate Knowledge and Understanding**

- Demonstrate relevant knowledge and understanding applied to a range of issues, using skills from different disciplines.

**AO2 Analysis and Evaluation**

- Marshal evidence and draw conclusions; select, interpret, evaluate and integrate information, data concepts and opinions.

**AO3 Understanding Knowledge**

- Demonstrate understanding of different types of knowledge, appreciating their strengths and limitations.

**AO4 Communication**

- Communicate clearly and accurately in a concise, logical and relevant way.

**Guidance for Examiners**

Do not use ticks. It is essential that your annotations show clearly why marks have been awarded or withheld – your team leader will assess your annotation as well as your accuracy.

**Stages to an essay mark**

Read and annotate **fully** the candidate's response, using any question specific annotations agreed at Standardisation.

Review your annotation, and then consider at which level the answer is located.

Consider its position within the level and a possible mark.

**Write a full summative comment using the AO statements from the Generic Mark Descriptors as a comment bank.**

Eg

AO1 good knowledge  
very limited knowledge and eg

AO2 examples given

AO3 personal experience relevant  
restricted personal experience

AO4 clearly written  
Inaccurate Spg

You must make comments additional to the AO statements but **NOT** instead of them. Such comments must be positive and specific, eg *excellent use of specialist knowledge AO1, notable for clarity and elegance AO4, some unusual egs well developed, well integrated AO2, the inclusion of personal experience and different perspectives AO3.*

Enter the final mark in a circle.

**If bullet points are used where continuous prose is asked for, a maximum of 30 marks is available for a 50-mark question.**

Assessment objectives balance			
AO1	AO2	AO3	AO4
10	15	15	10

Question	Answer	Marks	Guidance
1	<p><b>General comment:</b></p> <p><b>Indicative content:</b></p> <p>This question is concerned with:</p> <ul style="list-style-type: none"> <li>• different rates of attendance at arts events within England</li> <li>• the different types of arts events available</li> <li>• the ways in which arts events can be accessed</li> <li>• the ways in which attendance at arts events might change or develop over the next ten years.</li> </ul> <p><b>The three sources cover</b></p> <p><b>Source A</b></p> <ul style="list-style-type: none"> <li>• the population who are engaged in the arts in the regions in England</li> <li>• the responses are divided into gender and ethnicity</li> <li>• there are several differences, for example it seems that <ul style="list-style-type: none"> <li>- females have a greater engagement in the arts than males while</li> <li>- in the North East there is a greater engagement by white people than ethnic groups,</li> <li>- some regions are more actively participating in the arts than others.</li> </ul> </li> </ul> <p><b>Source B</b></p> <ul style="list-style-type: none"> <li>• celebrates a UK theatrical institution that is extending the scope of its influence</li> <li>• the NT is embracing developments in technology by broadcasting its productions worldwide</li> <li>• the NT is widening the scope of its audience by new approaches to presentations.</li> </ul>	50	<p><b>Recommended annotation:</b></p> <p><b>CF, SF, SciF</b> - factors affecting attendance.  <b>AE</b> - example of an Arts event.  <b>PX</b> - personal experience or knowledge.</p> <p><b>Levels of response</b></p> <p>These descriptors are intended as a first guide to examiners. They indicate the characteristics of a top level answer. Marks within a level are awarded when an answer does not include all parts of the qualities shown in the descriptor. Any answers which are 'border line' should be awarded the lowest mark in a band.</p> <p><b>Level 5 (41–50 marks)</b></p> <p>The essay will show a very good understanding of the issues affecting attendance at arts events (AO1) and will be able to discuss and consider a wide range of ways in which attendance at arts events might develop or change in the next decade. All of the domains will be considered and links between them will be established (AO2). The essay will consider both possibilities: an increase in attendance at arts events, and a decrease in attendance at arts events; and will offer examples to support the argument (AO3). The essay will be communicated clearly and fluently with a range of vocabulary (AO4).</p>

Question	Answer	Marks	Guidance
	<p><b>Source C</b></p> <ul style="list-style-type: none"> <li>• some of the UK's greatest artists remain relatively unknown and unappreciated due to a lack of exposure to a wider audience</li> <li>• celebrations and commemorations of his centenary may promote a wider appreciation of his work.</li> </ul> <p>Factors that affect attendance at arts events include:</p> <p><b>Cultural</b></p> <ul style="list-style-type: none"> <li>• examples of ethnically centred performances such as street dance etc</li> <li>• changing nature of the arts: weekend festivals; televised concerts, pod casts</li> <li>• increased media coverage through TV channels: Sky Arts, Discovery,</li> <li>• media coverage in specialist magazines or magazine supplements</li> <li>• anniversaries and celebrations of art and artists.</li> </ul> <p><b>Scientific</b></p> <ul style="list-style-type: none"> <li>• developments in technology enable live performances such as those by 'National Theatre Live'</li> <li>• opportunity for 'video-conferencing' of events</li> <li>• internet enables 'virtual tours' of some museums</li> <li>• internet viewing of events can skew the data collected in relation to attendance at arts events</li> <li>• use of 'web-cam' events</li> <li>• web experiences as an art medium/event in its own right</li> <li>• events come to the home rather than people going to events.</li> </ul>		<p><b>Level 4 (31–40 marks)</b> The essay will show a good understanding of the issues affecting attendance at arts events (AO1) and will discuss a range of ways in which attendance at arts events might develop or change in the next decade. All of the domains will be considered and links may be established (AO2). The essay will explore the notion of either an increase or a decrease in attendance at arts events together with some reference to the opposing stance. Examples will be offered to support the argument (AO3). The essay will be communicated in a clear and coherent manner (AO4).</p> <p><b>Level 3 (21–30 marks)</b> The essay will show a range of knowledge relating to issues affecting attendance at arts events (AO1). The essay will consider some ways in which attendance at arts events might develop or change in the next decade. However, not all domains will be covered or there will be imbalance in the coverage (AO2). It is possible that the essay will have no examples of personal experience, or this will be 'hearsay' (AO3). The essay will be communicated with some clarity although there may be limitations in the quality of language and presentation (AO4).</p> <p><b>Level 2 (11–20 marks)</b> The essay will suggest a modest understanding of issues which relate to attendance at arts events (AO1). There will be limited discussion of the issues and this will probably cover one or two domains. (AO2). The essay will have limited inclusion of examples relating to attendance at arts events or the way in which this might change or develop over the</p>

Question	Answer	Marks	Guidance
	<p><b>Social</b></p> <ul style="list-style-type: none"> <li>• attitudes of the family to arts events may be negative</li> <li>• cost of tickets and implications of attending such events</li> <li>• regional variations in population affect data in sources, and ability to attend events</li> <li>• opportunity to access the arts through school varies due to policy, infrastructure, ability to access etc</li> <li>• access to arts events varies to due transport infrastructure in differing regions of the country</li> <li>• socio-economic issues affect attendance (eg disposable income).</li> </ul> <p><b>Using the sources and your own knowledge and experience, discuss how attendance at arts events might develop over the next ten years.</b></p> <ul style="list-style-type: none"> <li>• advent of cheap access to internet enables people to appreciate what they might not be able to afford to see</li> <li>• a number of 'important' exhibitions do not always reach the localities and are situated in major cities thus restricting access</li> <li>• photography and digital imaging might mean that fewer people want to see 'the real thing'</li> <li>• greater variety of type and style of event and method of accessing it should ensure awareness and interest for a wide range of public.</li> <li>• private funding of events will effect whether people will be able to attend due to costs and venue</li> <li>• in a time of recession government subsidies might be cut thus reducing opportunities to attend events for various social groups due to cost of entry and accessibility</li> <li>• the position of arts in the school curriculum will affect awareness and resultant interest in arts events</li> <li>• different ways in which the schools address the arts: 'Artist in residence' for example</li> </ul>		<p>next decade (AO3). The essay will lack clarity and/ or cohesion in presentation of ideas (AO4).</p> <p><b>Level 1 (0–10 marks)</b>  A restricted understanding of the concepts relating to attendance at arts events will be shown (AO1). Discussion relating to issues from the domains will be scant or only one domain will be considered (AO2). An essay in this band will probably have no relevant examples and there will be a restricted appreciation of any issues (AO3). The essay will lack development and clarity of understanding (AO4).</p>

Question	Answer	Marks	Guidance
	<ul style="list-style-type: none"><li>• further developments in technology might affect attendance at live events: Sky Anytime</li><li>• 'live experience' versus what can be seen on TV might ensure continued attendance at events.</li></ul> <p>Please note it is possible that some candidates might make ill reasoned and frivolous comments such as attendance might improve if free meals or drinks are offered. Details of developments could be speculative as well as actual. There could be additional developments by the time the examination is taken particularly after the Olympics.</p>		



Assessment objectives balance			
AO1	AO2	AO3	AO4
10	15	15	10

Question	Answer	Marks	Guidance
2	<p><b>General comment:</b></p> <p><b>Indicative content</b></p> <p>The question is concerned with:</p> <ul style="list-style-type: none"> <li>Knowledge of a scientific invention or discovery and its key features, for example <ul style="list-style-type: none"> <li>who made the discovery/invention</li> <li>what the discovery/invention does</li> <li>how it works</li> <li>why it is important</li> </ul> </li> <li>Discussion about its impact on culture, science and society.</li> </ul> <p>The sources cover:</p> <p><b>Source D</b></p> <ul style="list-style-type: none"> <li>in the nineteenth century science was concerned with understanding the mysteries of the physical world and perhaps less with inventions.</li> </ul> <p><b>Source E</b></p> <ul style="list-style-type: none"> <li>the twentieth century was more concerned with inventions but still made discoveries.</li> </ul> <p><b>Source F</b></p> <ul style="list-style-type: none"> <li>discoveries and inventions are not always as a result of deliberate investigation and research.</li> </ul>	50	<p><b>Recommended annotation:</b></p> <p><b>Ch</b> – chosen discovery/invention.  <b>KF1, KF2</b> – key feature(s).  <b>Cu+, Cu-</b> – impact(s) on culture.  <b>Sc+, Sc-</b> – impact(s) on science.  <b>So+, So-</b> - impact on society.  <b>Dev</b> - development of point made.</p> <p><b>Levels of response</b></p> <p>These descriptors are intended as a first guide to examiners. They indicate the characteristics of a top level answer. Marks within a level are awarded when an answer does not include all parts of the qualities shown in the descriptor. Any answers which are ‘borderline’ should be awarded the lowest mark in a band.</p> <p>Assessors should note that some candidates might well deal with key features and impacts within a discussion about their chosen discovery/invention while others might develop a response which clearly falls into two distinct parts: ‘key features of discovery/invention’, and then ‘impacts on domain areas’</p> <p><b>Level 5 (41–50 marks)</b></p> <p>This essay will demonstrate a very good knowledge of a discovery/invention and its key features (AO1). There will be a full discussion on the positive and negative impacts this has had on each of the domains (AO2). There will be a range of examples to support the discussion (AO3). The essay will be communicated clearly and fluently, and a range of vocabulary. It is expected that a conclusion about the impact(s) will be drawn (AO4).</p>

Question	Answer	Marks	Guidance
	<p>Candidates are expected to outline any <b>one</b> discovery or invention known to them and identify its key features.</p> <p><b>Impact of discovery or invention on culture, science and society.</b></p> <p>The choice of invention or discovery could be quite wide (wind turbines, solar panels, hybrid engine are some more 'modern' examples). Examples are given as illustration after each of the points suggested in the mark scheme.</p> <p>To assess the impact of the discovery/invention discussion may include reference to:</p> <p><b>Culture</b></p> <ul style="list-style-type: none"> <li>• impact upon religious beliefs for example transplants and transfusions</li> <li>• impact upon beliefs and attitudes of people of different ethnicity; eg 'playing God,'</li> <li>• media influence on public perceptions of some discoveries/inventions; eg growth of organs (ear on mice)</li> <li>• access to inventions/discoveries for/by some groups; eg cure for sickle cell anaemia</li> <li>• attitudes of people to change over time; eg use of telephone (call box to mobile).</li> </ul> <p><b>Science</b></p> <ul style="list-style-type: none"> <li>• inquisitive nature of Man leads to invention and discovery; eg computer technology</li> <li>• subsequent developments as a result of initial invention/discovery; eg internet</li> <li>• awareness of science needed in order for chosen invention to have been discovered; eg gene therapy potential drawbacks of discovery or invention; eg mutation of viruses to combat antibiotics</li> <li>• improvements in fuel; eg hybrid cars, alternative fuels.</li> </ul>		<p><b>Level 4 (31–40 marks)</b>  This essay will show good knowledge of a discovery/invention and identify a range of key features (AO1). There will be a discussion about the impact on each of the domains and there might be some consideration of benefits and drawbacks of the impact in relation to some domains (AO2). There will be a range of examples to support both positive and negative impacts (AO3). The essay will be communicated in a clear and coherent manner. A conclusion about the impacts might be present. (AO4).</p> <p><b>Level 3 (21–30 marks)</b>  This essay will show relevant knowledge about a discovery/invention and some of its key features (AO1). There will be discussion and consideration of its impact on the domains but one might be omitted or with less development than the other two. (AO2). There will be some consideration of the benefits and drawbacks of the chosen invention. There will be some appropriate examples to support the discussion (AO3). The essay will be communicated with some clarity although there may be limitations in the quality of language and presentation (AO4).</p> <p><b>Level 2 (11–20 marks)</b>  This essay will probably identify a discovery/invention but struggle to identify its key features (AO1). As a result discussion about its impact on each of the domains will be limited and it is possible that only one or two domains will be considered (AO2). Examples to support discussion will be restricted and possibly based on 'hearsay' rather than personal experience (AO3). The essay will lack clarity and/ or cohesion in presentation of ideas (AO4).</p>

Question	Answer	Marks	Guidance
	<p><b>Society</b></p> <ul style="list-style-type: none"> <li>• postcode lottery in relation to some inventions/discoveries; eg survival rates for some cancers in south of UK better than those of north</li> <li>• improvement in living standards (for some but perhaps not all); eg immunisations</li> <li>• lack of personal responsibility due to invention/discovery; eg rise in use of 'morning after pill as a form of birth control</li> <li>• costs of invention/discovery and 'who foots the bill'; eg cost of medicines and whether they are approved for use by NHS</li> <li>• improvements in transport of/for goods/people; eg bullet train in Japan.</li> </ul>		<p><b>Level 1 (0–10 marks)</b></p> <p>This essay will lack knowledge about a discovery/invention and will fail to include any key features relating to it (AO1). As a consequence any discussion about its impact on the domain areas will be poor and it is possible that only one domain will be considered (AO2). It is unlikely that there will be examples to support any observations or comments which are made (AO3). The essay will lack development and clarity of understanding (AO4).</p>

## Generic Mark Scheme for questions worth 50 marks.

## Levels descriptors

## Level 5

<b>AO1</b>	<ul style="list-style-type: none"> <li>select, use and integrate a very good range of relevant knowledge</li> <li>show a good understanding of the concepts involved</li> </ul>	<b>41–50</b>
<b>AO2</b>	<ul style="list-style-type: none"> <li>interpret and analyse issues and problems well and evaluate them appropriately</li> <li>use evidence to develop complex reasoned arguments and draw sound conclusions on the evidence</li> </ul>	
<b>AO3</b>	<ul style="list-style-type: none"> <li>demonstrate very good awareness of the differences between types of knowledge</li> <li>have a very good appreciation of the strengths and limitations of the different types of knowledge</li> </ul>	
<b>AO4</b>	<ul style="list-style-type: none"> <li>communicate complex ideas clearly and accurately, using specialist vocabulary where appropriate, in a concise, logical and relevant way</li> <li>use a range of the rules of grammar, punctuation and spelling with accuracy and facility.</li> </ul>	

## Level 4

<b>AO1</b>	<ul style="list-style-type: none"> <li>select, use and integrate a good range of relevant knowledge</li> <li>show an understanding of the concepts involved</li> </ul>	<b>31–40</b>
<b>AO2</b>	<ul style="list-style-type: none"> <li>interpret and analyse issues and problems and evaluate them competently</li> <li>use evidence to develop reasoned arguments and draw conclusions on the evidence</li> </ul>	
<b>AO3</b>	<ul style="list-style-type: none"> <li>demonstrate good awareness of the differences between different types of knowledge</li> <li>have a good appreciation of the strengths and limitations of the different types of knowledge</li> </ul>	
<b>AO4</b>	<ul style="list-style-type: none"> <li>communicate ideas clearly and accurately, using specialist vocabulary where appropriate, in a concise, logical and relevant way</li> <li>use a range of the rules of grammar, punctuation and spelling with facility.</li> </ul>	

## Level 3

<b>AO1</b>	<ul style="list-style-type: none"> <li>select, use and integrate a range of relevant knowledge</li> <li>show an adequate understanding of the concepts involved</li> </ul>	<b>21-30</b>
<b>AO2</b>	<ul style="list-style-type: none"> <li>undertake some interpretation and analysis of issues and problems and make a superficial evaluation</li> <li>use evidence to develop arguments and draw conclusions</li> </ul>	
<b>AO3</b>	<ul style="list-style-type: none"> <li>demonstrate awareness of the differences between types of knowledge</li> <li>have an appreciation of the strengths and limitations of the different types of knowledge</li> </ul>	
<b>AO4</b>	<ul style="list-style-type: none"> <li>communicate clearly, using some specialist vocabulary with facility</li> <li>use some of the rules of grammar, punctuation and spelling with facility.</li> </ul>	

## Level 2

<b>AO1</b>	<ul style="list-style-type: none"> <li>select, use and integrate a limited range of relevant knowledge</li> <li>show a modest understanding of the concepts involved</li> </ul>	<b>11-20</b>
<b>AO2</b>	<ul style="list-style-type: none"> <li>demonstrate limited interpretation and analysis of issues and problems with limited evaluation</li> <li>use evidence to develop limited arguments and draw limited conclusions</li> </ul>	
<b>AO3</b>	<ul style="list-style-type: none"> <li>demonstrate limited awareness of the differences between types of knowledge</li> <li>have a restricted appreciation of the strengths and limitations of the different types of knowledge</li> </ul>	
<b>AO4</b>	<ul style="list-style-type: none"> <li>communicate ideas with limited clarity, using some specialist vocabulary</li> <li>use some rules of grammar, punctuation and spelling.</li> </ul>	

## Level 1

<b>AO1</b>	<ul style="list-style-type: none"> <li>select, use and integrate some knowledge which may not be accurate</li> <li>show a restricted understanding of the concepts involved</li> </ul>	<b>0-10</b>
<b>AO2</b>	<ul style="list-style-type: none"> <li>demonstrate poor interpretation and analysis of issues, problems and evaluation</li> <li>recognise arguments and conclusion</li> </ul>	
<b>AO3</b>	<ul style="list-style-type: none"> <li>demonstrate very limited awareness of the differences between types of knowledge</li> <li>have a very restricted appreciation of the strengths and limitations of the different types of knowledge</li> </ul>	
<b>AO4</b>	<ul style="list-style-type: none"> <li>communicate with little clarity using occasional specialist terms</li> <li>use poor grammar and punctuation, and inaccurate spelling.</li> </ul>	

**OCR (Oxford Cambridge and RSA Examinations)**  
1 Hills Road  
Cambridge  
CB1 2EU

**OCR Customer Contact Centre**

**Education and Learning**

Telephone: 01223 553998

Facsimile: 01223 552627

Email: [general.qualifications@ocr.org.uk](mailto:general.qualifications@ocr.org.uk)

**[www.ocr.org.uk](http://www.ocr.org.uk)**

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored

**Oxford Cambridge and RSA Examinations**  
is a Company Limited by Guarantee  
Registered in England  
Registered Office; 1 Hills Road, Cambridge, CB1 2EU  
Registered Company Number: 3484466  
OCR is an exempt Charity

**OCR (Oxford Cambridge and RSA Examinations)**  
Head office  
Telephone: 01223 552552  
Facsimile: 01223 552553

© OCR 2013

