



General Certificate of Secondary Education

General Studies 3761

Paper 2 Higher Tier

Mark Scheme

2007 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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GCSE General Studies

Paper 2 Tier H

Question 1

How are the arguments about the benefits and drawbacks of scientific advances, discussed in **Source 1**, supported by the content of **Source 2** and **Source 4**?

Skills Descriptors	Marks	Content Descriptors
<p>Simple interpretation / selection of pre-released material.</p> <p>(Where points are lifted straight from the source, without elaboration, the maximum mark is 3.)</p>	<p>(1 – 3)</p>	<p>Points such as:</p> <p>Source 1 major benefits could lead to “boon to humanity”</p> <p>science has been used for destructive purposes and scientists not blameless.</p> <p>Source 2 UK uptake of science course in decline – clear impact on research</p> <p>either other countries will take over or scientific research will slow down with obvious effects.</p> <p>Source 4 clearly supports the anti-war sentiments of Source 1.</p>
<p>Some cross-referencing of material – linking figures in different documents.</p>	<p>(4 – 5)</p>	<p>Sees Source 1 as being reliable because of Nobel Prize, but questions validity of Source 4 as it is from a pressure group. The answer might raise the point that some arguments are more valid and better supported than others.</p> <p>Source 2 raises social questions about the role of science which are part of the argument in Source 1.</p>

Question 2

Considering the scientific developments outlined in **Source 3**, discuss the moral arguments versus the pure science arguments raised in **Source 5** and **Source 6**.

Skills Descriptors	Marks	Content Descriptors
<p>Simple interpretation / selection of pre-released material.</p> <p>(Where points are lifted straight from the source, without elaboration, the maximum mark is 3.)</p>	(1 – 3)	<p>Source 5 Stem cells could cure disease but there are concerns about using human embryos</p> <p>Source 6 Stem cells might not be so useful as some believe</p>
<p>Some cross-referencing of material – linking figures in different documents. Answers in this band should draw clear comparisons and not simply give isolated facts</p>	(4 – 5)	<p>Source 5 tries to sidestep the moral issue by suggesting that the process does not destroy the embryo</p> <p>Source 6 urges caution in general as the science is not yet good enough to justify the ignoring of moral arguments</p>

Question 3

In answer to this question you should refer to **all** the **Sources** (1 to 6) as well as using **your own knowledge**.

What do you see as some of the major benefits and drawbacks of a continued increase in scientific knowledge in the 21st century?

As this is, by its very nature, a very open ended topic there are no specific guidelines as to the content of answers that may be presented. Matching the answer to the two sets of descriptors should allow for the placing of an answer within a mark range. The degree to which the answer matches the criteria for that range will determine which of the two marks available within the range it should receive.

Simple selection of relevant material. Basic level of organisation of material – probably in the order in which it was presented.	(1–2)	The answer contains some simple reference to the material provided or to additional material. Information presented should be clear and simple to understand. The answer should contain one or two conclusions in the simplest form.
Ability to select relevant material from a large body of such information. Sequencing of material other than chronologically. Ability to draw relevant simple conclusions.	(3–4)	The answer should contain some evidence of reorganisation of the material provided and / or of additional material. Information presented should be clear and simple to understand with some illustration of points. The answer should contain clear conclusions, though these may be in the simplest form.
More astute selection of material. Becoming more aware of audience and selecting supporting material accordingly. Ability to draw other than simple conclusions.	(5–6)	The answer should contain some evidence of reorganisation of material with personal opinion beginning to be expressed. Information presented should be clear and simple for the general reader to understand. Points should be illustrated with well chosen examples. The answer should contain clear conclusions drawn from relevant material.
Ability to select from pre-released material and to introduce and link material from elsewhere. Ability to carry out independent research. Aware of links between elements of the subjects. Conclusions drawn logically from some clear analysis.	(7–8)	The answer should contain clear analysis of the facts and well informed personal opinion. Full use should have been made of relevant supporting material. The answer will contain evidence of some additional research. Information should be clearly presented and simple for the general reader to understand. The answer should contain clear conclusions drawn from a range of relevant material and based on clear analysis.
Personal opinion expressed and supported. Greater ability to select material from external sources. Draws detailed conclusions.	(9–10)	The answer should draw its conclusions in a clear and logical way, offering personal judgements supported by detailed evidence drawn from a wide range of subject areas / significant additional research. Shows an understanding of the differences between fact and opinion.