

19 December 2005

To: SQA Co-ordinator
Directors of Education
Biology Panel Members
Customer Accounts Managers

**For the attention of all staff responsible for the delivery
of National Qualifications in Biology**

Action by Recipient	
	Response required
✓	Note and pass on
	None — update/information only

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Dear Colleague

National Qualifications Update — Biology, Human Biology and Biotechnology

This letter is the latest in the series of update letters from SQA and should be passed on to the members of staff responsible for delivering NQ Biology, Human Biology and Biotechnology.

I would like to take this opportunity to introduce myself. I have replaced Mary Hoey as the Qualifications Manager and I can be contacted on the direct dial and e-mail address noted above. Paula McLeod has replaced Tracey Hope as Qualifications Officer and can be contacted by e-mail: paula.mcleod@sqa.org.uk, or by direct dial: 0141-242 2148.

1. Principal Assessor Reports

The Principal Assessor (PA) reports for the 2005 diet of examinations are available on the NQ Biology/ Biotechnology /Human Biology subject-specific pages of SQA's website (www.sqa.org.uk).

The PA reports contain statistical information on candidate entries, grade boundaries at C, B and A, and comments on candidate performance in areas of the external exam in which candidates have performed well and in areas in which candidates had difficulty.

2. Senior Moderator Reports for 2005

The Senior Moderator Reports for 2005 will be posted on the SQA website early in 2006.

The Senior Moderator Reports include general information on the moderation events and specific issues identified for the following areas:

- ◆ Standard Grade Biology Practical Abilities
- ◆ NQ Access 3 — Advanced Higher level Unit Assessments
- ◆ AH Biology Investigation (Unit Assessment)

3. Marking Instructions

The detailed marking instructions for Biology (Standard Grade, Intermediate 1, Intermediate 2, Higher and Advanced Higher), Biotechnology (Intermediate 2 and Higher) and Human Biology (Higher) for the 2005 examinations are available on SQA's website.

4. Electronic Marking of Objective Tests

SQA adopted electronic marking of objective test sections of examinations in 2005 and this practice will continue in 2006. Candidates will be issued with an answer sheet that will contain their pre-printed personalised details. **However, as from 2006, candidates will be required to complete the answer sheet using an HB pencil.** If a candidate wishes to make a change to their answer they must do so using an eraser. Posters will be distributed to centres informing them of this change, so that candidates will be familiar with the new procedure for completion of their answer sheet prior to sitting the examination.

5. Online Objective Tests for Biotechnology External Examinations

As part of SQA's continuing process of improvements, a project has been set up whereby Section A (the objective test section) of Intermediate 2 and Higher Biotechnology will be available to candidates online. This will be introduced in the 2006 examinations in these subjects. Centres presenting candidates for Intermediate 2 and/or Higher Biotechnology have been invited to take part in the project.

6. Electronic Marks Capture

This is an important first step in the modernisation of marking procedures of SQA qualifications. Appointees who are marking Higher Human Biology and Advanced Higher Biology in 2006 have been invited to take part in a project whereby they will electronically input the marks they have awarded directly into SQA data management systems. This will provide more quantitative information at an earlier stage and will help to inform the pass mark decision making process. Existing Quality Assurance procedures (eg Script Check, Marker Check) will operate as normal following electronic marks capture.

7. Disability Discrimination Act (2005)

SQA is working towards compliance with this Act, and to this end, SQA sought advice from the Royal National Institute of the Blind (RNIB) regarding the use of the term colour blind. As from 2006, all Biology SQA examination question papers will refer to the term colour vision deficient rather than colour blind. This is because the term colour vision deficient is technically correct and is less likely to cause offence to those who may be affected by the condition.

8. NABS

NABS for Biology (Access 3, Intermediate 1, Intermediate 2, Higher and Advanced Higher) and Higher Human Biology are in the process of being updated in that the surround information from NAB001 is being included in all NABS. **It must be stressed that, apart from minor amendments, there are no changes to the assessments and marking schemes themselves.** The updated NABS will be posted on SQA's website in due course. A separate

letter will be issued to centres detailing the minor amendments to the assessments and marking schemes.

9. Advanced Higher Biology Investigations

Over the past few years a number of publications have been produced providing guidance to teachers and candidates for the Advanced Higher Biology Investigation. These publications are listed below for your information:

◆ Investigation Guidance (August 2004)

This can be accessed from the subject specific pages of SQA's website (www.sqa.org.uk). A copy of this should be given to all candidates being presented for AH Biology.

◆ Principal Assessor Reports 2004 and 2005.

Both reports are available from the subject specific pages of SQA's website. The reports themselves contain information about the investigation and also contain an appendix giving further detailed information.

◆ Senior Moderator Report 2004

This provides detailed information regarding the planning of the investigation. This can be accessed from the subject specific pages of SQA's website. This information is also included as an appendix in the subject update letter (December 2004).

◆ Exemplification of Standards

This is available from the secure website which can be accessed by the centre SQA co-ordinator. There are two documents available in this website. The *Complete Document* includes guidance to candidates and teachers, detailed marking instructions and examples of a C graded report and an A graded report. The other document *Examples of Investigations* provides suggestions for suitable investigations.

10. Understanding Standards website

This website (www.understandingstandards.org.uk) is designed specifically for teachers/lecturers and the username and password needed to gain access to the site are available from centre SQA co-ordinators. The aims of the website are to explain the principles underlying the marking of assessment evidence and to interactively develop teacher/lecturer skills in applying these principles to a selection of candidate responses. At present the website includes interactive marking of candidate responses from Higher Biology. It is anticipated that Intermediate 2 Biology and Higher Human Biology will be included on the website in 2006.

11. Appeals

Centres are referred to the SQA publication *Estimates, Absentees and External Assessment Appeals: guidance on evidence requirements April 2004* which provides generic and subject specific guidance on generating evidence. This publication can be accessed from the subject specific pages of SQA's website.

The success rate for appeals in Biology across the levels either stayed the same as last year or showed improvement. However, as in previous years, a number of centres did not provide complete Course evidence. Centres are reminded that, when submitting evidence for appeals, the evidence must demonstrate candidate attainment across the whole Course. This applies to all levels of qualifications. Also, a high scoring NAB can be submitted as evidence for an appeal at C grade but it is not valid evidence to support an appeal for a B grade or an A grade. These require additional evidence assessing the Course A Grade Description.

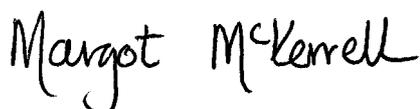
The previous subject update letter (December 2004) contained an appendix on feedback on appeals evidence. This appendix is included again with this update letter for your information as many of the issues highlighted in 2004 were observed again in 2005 (Appendix 1).

12. Review of Biology National Qualifications Courses

As stated in the previous update letter (December 2004), a Biology Subject Advisory Group was set up and met on several occasions at the beginning of the year to consider ideas and proposals for Higher Biology, Higher Human Biology and Advanced Higher Biology. However, work by this group has been put on hold until the outcomes are known from the curricular groups currently considering S1-S3 under the auspices of A Curriculum for Excellence. The work of the Biology Subject Advisory Group will go out to centres for consultation in due course.

I hope that the contents of this letter are helpful to you. Please do not hesitate to contact me if you require further clarification.

Yours faithfully



Dr. Margot McKerrell
Qualifications Manager
NQ Maths and Science Team

Appendix 1

Additional Feedback on Appeals – Biology

December 2004

Many centres are not following the most recent advice given in the SQA publication **“Estimates, Absentees and External Assessment Appeals: guidance on evidence requirements April 2004”**. This document indicates that when compiling a prelim a minimum of three sources of past papers should be used and that questions should preferably be adapted. This applies to SQA past papers as well as past commercially produced papers. Centres should note that use of questions which are in the specimen paper will affect the reliability of the assessment.

It has been noted that some centres use the same prelim every year and it must be recognised that this entails a security risk and therefore affects the reliability of the evidence generated.

In selecting questions from past papers, some centres do not include a sufficient number of A-type questions. It should be noted that there should be around 20 marks of A-type questions in Section B of Higher Biology; these include questions which require the candidate to describe or explain or account for a particular effect.

Centres should note that sets of questions or a complete section of questions (e.g. all of Section A or all of Section C) should not be lifted from any one source of past paper.

Care should be taken in the selection of questions set in a practical context especially where the source is pre year 2000. Prior to this date questions assessed compulsory practicals and as such related to Knowledge and Understanding of those practicals and not to assessment of the more generic practical Problem Solving skills defined in the current Course arrangements documents.

In some cases questions assessing Problem Solving skills did not meet the required complexity of data which is also defined for each Course in the Arrangements document.

Care should be taken to ensure that the evidence submitted covers all aspects of the Course. In particular, in setting a prelim, centres should ensure that the choice of questions in Section C extended response questions are from the same Unit, as in the practice in the external examination. In some centre prelims, the choice is set up in such a way that a candidate could answer two questions on Unit one work. This results in the overall balance of evidence presented for that candidate to be inappropriate with insufficient evidence of performance at an appropriate level across all of the Course.

In setting cut-off score for prelims, some centre do not take account of the fact that the prelim only covers part of the Course and may include some questions which the candidates may have seen before. It is advisable that cut-off scores which are higher than those used in the national examination are applied.

Centres should also take care in the selection of questions in the additional evidence i.e. that assessment which focuses on those aspects of the Course not covered by the prelim. In some

cases, there was unacceptable overlap in aspects assessed in the additional test and in the prelim. Some centres offer a second prelim later in the year which covers all three units. While this has the laudable aim of demonstrating performance across the Course, it can result in insufficient evidence of performance in the third Unit across the package of evidence presented for appeal.

Some centres do not re-evaluate candidates' estimates after the assessment of the later part of the Course. Centres should aggregate performance across the prelim and the additional evidence to determine the standard demonstrated. Centres should apply a realistic weighting to the different components; this will vary depending on the model used to generate the additional evidence.

Marking caused a problem in some centres with some evidence being submitted which was not marked and in other cases marking was lenient resulted in over-estimation of performance.

Centres should carefully consider the appropriateness of appeals for candidates who perform close to grade boundaries. Such borderline performance is unlikely to result in a successful appeal.