



**National Qualifications 2015  
Internal Assessment Report**

**Biology and Human Biology**

The purpose of this report is to provide feedback to centres on verification in National Qualifications in this subject

# National Courses

Titles/levels of National Courses verified:

Biology (Access and Intermediate 1)

Biology (Intermediate 2)

Biology (Higher)

## General comments

With a reduced number of centres offering the traditional National Courses, the verification sample was smaller than in previous years.

The NABs Unit test papers provided by SQA together with the recommended practical assessment instruments were used by all the centres sampled. Over all of the various levels sampled the published mark schemes were accurately and consistently applied by the centres.

Several of the centres were put on 'Hold' as they failed to supply all of the evidence required. In most cases this was the appropriate practical skills/Outcome 3 evidence. However, all of the centres passed verification once this evidence had been supplied.

There was also a notable drop in the numbers of centres employing some form of internal verification procedure. The practice of internal verification continues to be an invaluable aid to central verification.

In a small number of cases the marking of practical skills/Outcome 3 evidence often fell outwith the guidelines as these centres failed to follow the recommended procedures of indicating the points at which the PCs were awarded on the candidates' scripts.

There was a marked deterioration in candidate handwriting skills with a number of scripts very difficult to read.

## Course Arrangements, Unit specifications, instruments of assessment and exemplification materials

All centres sampled used the appropriate NAB and mark scheme.

Marking was clear, concise and accurate and made use of the latest SQA marking guidelines.

Where internal verification was practised any changes in the marking were clear and obvious.

Over all the levels sampled there were no arithmetic errors again this year.

Disappointingly there was an increase in the number of centres put on Hold for failing to supply all of the evidence required, namely, practical skills/Outcome 3 evidence.

### **Evidence Requirements**

Several centres failed to supply practical skills/Outcome 3 evidence. No matter which Unit of coursework is requested, centres must also forward evidence of marked practical work for the verification procedures.

All centres sampled supplied an appropriate NAB test and marking scheme for the level being verified. The marking of the NAB test was clearly shown and where internal verification was carried out any change by the verifier was easily identified.

### **Administration of assessments**

NAB tests published by SQA and recommended practical investigations were being used by the centres sampled.

There was a large number of centres where no internal verification was evident.

### **Areas of good practice**

Comments by the assessor can be of value to the candidate as a form of feedback as well as an aid to verification when there are doubts about giving or not giving marks due to ambiguity.

Where internal verification/cross-marking procedures were evident they continue to provide a valuable addition to successful verification.

### **Specific areas for improvement**

SQA Co-ordinators, faculty heads and delivering staff need to be aware of the requirements in their centre's sample. While the vast majority provided the necessary paperwork for the testing of theory there was a marked increase in the number of centres not providing practical skills/Outcome 3 evidence and, in those that did, more failed to indicate the points at which PCs were being awarded on candidate scripts.

While the marking of the NAB tests were accurate and concise in the application of the published mark schemes, there was a wide variation in the application of the marking of the practical skills/Outcome 3 evidence.

Candidates should be made aware of the differences between 'accurate' and 'reliable' and the different ways in which these can be achieved during experimental work.

The need for controls and repetition should be emphasised as well as the recognition of possible faults and sources of error.

Candidates' conclusions should have a direct link to the evidence that they have been actively involved in collecting with 'evaluation' covering comments on the procedures used and the results obtained.

# National Qualifications (NQ) Units

Titles/levels of NQ Units verified:

Biology (Advanced Higher) Investigation

## General comments

During an external verification visit each verifier would look to meet with the centre's SQA Co-ordinator, the faculty head, the presenting staff and the candidates.

The purpose of the visit is to make the centre aware of the national guidelines and how they apply to staff and candidates in the assessment of this Unit. This usually involves expanding on guidelines and advice available online and in SQA publications.

While the main focus is the verification of the day-book record, the visit provides a platform for discussion on problems and pitfalls. Verifiers are able to advise on the keeping of a scientific record and the conversion of that record into a final report.

## Course Arrangements, Unit specifications, instruments of assessment and exemplification materials

All of the centres visited were aware of the latest guidelines and internal assessment requirements for both staff and candidates.

The majority of candidates had a copy of the *Advanced Higher Candidate Guidance* and were using it for reference. In many cases, particularly where two or more staff were involved in delivery, the centre was also using this as an opportunity for the practice of internal verification.

Many of the centres used the latest published SQA guidelines as exemplar material together with previously completed day-books and the final reports of former candidates.

## Evidence Requirements

A growing number of candidates are storing their work/results electronically; however, the majority use an A4 jotter and record their work in a diary-like format.

Many centres start the preparation for investigation early in S6 and a brief record of class discussion and one-to-one conversations are evident with a record of library research and information gathering also recorded.

The meetings with outside agencies were properly acknowledged.

Equipment used, practical work timing and forms of referencing were all poorly recorded.

### **Administration of assessments**

All candidates were aware of the SQA publication *Guidelines to Candidates* and many of the candidates included it in the paper record of their day-book.

In discussions with verifiers, candidates were aware of the assessment deadlines and the importance of discussion and record keeping with staff.

The majority of centres were aware of the importance of dating and signing-off work in the day-books.

### **Areas of good practice**

- ◆ A number of centres were actively involving outside agency expertise and personnel to deliver, monitor and mentor the practical work.
- ◆ A number of the centres had a dedicated laboratory set-up and technician support for candidates to use for their AH work — many sharing it with the other candidates studying different science subjects.
- ◆ Many centres kept a well-stocked library of books, journals, scientific papers, lists of recommended websites and former candidate reports.
- ◆ Some centres encouraged candidates to keep a log of useful websites and digital sources of reference material — this included useful video and audio-visual material.
- ◆ Many of the staff attended national and regional meetings where Advanced Higher Investigations were discussed.

### **Specific areas for improvement**

- ◆ Many centres give very good guidance into suitable areas for investigation work. However, a number of centres allowed candidates to spend a considerable amount of time and resources on trying to start an investigation that was either too ambitious, too expensive, extremely time consuming or had a number of variables that were difficult to control.
- ◆ Centres must ensure that candidates are spending the required time on the investigation.
- ◆ Referencing continues to be an area that is poorly done. Centres should find time to work on this area as it is regularly a problem in the final write-up despite the issuing of specific and detailed instructions.
- ◆ There are marks for 'Evaluation' of both the procedures and results in the final report so ongoing evaluation at an appropriate level should be encouraged in the day-book.
- ◆ Candidates should be encouraged to tabulate their results and the accompanying graph/chart work in a clear, concise and accurate format.