

## Principal Assessor Report 2002

**Assessment Panel:**

**Biology**

**Qualification area**

**Subject(s) and Level(s)  
included in this report**

**Biology Advanced Higher**

## Statistical information: update

<b>Number of entries in 2001</b>	
<b>Pre appeal</b>	396
<b>Post appeal</b>	396

<b>Number of entries in 2002</b>	
<b>Pre appeal</b>	1541
<b>Post appeal</b>	

### General comments re entry numbers

2002 is the second year of examination at Advanced Higher. The number of entries increased by 1145 from entries in 2001. Last year the first exam ran parallel to the final presentation of CSYS Biology so it is relevant to consider the presentations of both to see the real increase from Advanced Higher.

Combined post-appeal entries for CSYS and Advanced Higher last year came to 1353 (957 CSYS plus 396 AH) which was more than any previous year with CSYS alone. CSYS had an uptake of about 1250 averaged over the previous few years, so last year's combined entry was about 7.5% up.

The increase this year over the combined entry from last year is 188 candidates, or about 14%. For this level of course numbers have risen by about 290 over the previous CSYS average, an increase of around 23% since the introduction of AH Biology.

### General comments

It is positive and reassuring that there is a growing demand for the new National Qualification.

In last year's Report a comparison was made between the first AH cohort and the corresponding CSYS population: the two groups performed similarly in the two exams. The increase in uptake this year includes a majority of Centres that did not present in 2001; it is their first run through the course having done CSYS before. It may also include many candidates who would not previously have considered attempting this level of work. Both of these elements may have a bearing on overall performance in this year's examination.

## Grade boundaries at C, B and A for each subject area included in the report

**Maximum mark = 125**

Grade boundaries expressed as a percentage of mark in brackets

Year	Upper A	A	B	C
2001	101 (80.8%)	87 (69.6%)	73 (58.4%)	59 (47.2%)

### General commentary on grade boundaries

*Notional percentage cut-offs for each grade*

Question papers and their associated marking schemes are designed to be of the required standard and to meet the assessment specification for the subject/level concerned.

For National courses the examination paper(s) are set in order that a score of approximately 50% of the total marks for all components merits a grade C (based on the grade descriptions for that grade), and similarly a score of 70 % for a grade A. The lowest mark for a grade B is set by the computer software as half way between the C and A grade boundaries.

### Comments on grade boundaries for each subject area

The examination was written this year so that C type knowledge questions would be more accessible, particularly in Section B and to provide a little more support for essay planning.

Because of these changes the grade C boundary was raised from last years mark. There was no planned change in the level of demand to discriminate grade A performance so the grade A boundary was not altered from last year.

## Comments on candidate performance

### General comments

There were many very able and articulate candidates throughout the country who performed well in all aspects of what is a challenging course assessment.

At the other end of the scale there were many candidates who appeared to have little understanding of the course content or who had not prepared adequately for the level of demand of the course examination. In their reports, script markers frequently commented on this extreme range. Some also believed that, from the answers they were marking, many candidates might have been left to cope with little teacher input and had memorised verbatim large chunks of the commoner resource materials.

On the whole, the tone of the markers' comments was of disappointment at the modest standard of answers particularly in the essays.

### Areas of external assessment in which candidates performed well

Candidates performed well in the objective test items, Section A (average score about 16/25) and in the Investigation Report (average score about 17/25). Straightforward numerical questions were reasonably well done in all parts of the assessment. There were outstanding essays on all the topics tested, although it was rare for the same candidate to do them all well!

Physiology, Health and Exercise was more popular than the other Option topics, and in general essays in this scored better marks than in all the essays.

### Areas of external assessment in which candidates had difficulty

The average marks for all essays were modest. Able candidates were often tempted to write everything they knew about a topic rather than focus on the question asked. With time at a premium in an exam, this is not a good strategy. Essay titles are usually written in a way that provides cues about how to structure a response; often candidates did not identify the structure and consequently rambled.

Some answers in the data handling questions, Section B, were over long. Candidates could write a page for a question worth two marks, and even then might not score both points.

Knowledge of DNA structure, stated in the Arrangements as required at a level similar to Higher was very poor. Often it seemed that candidates had not gone over this work in their teaching, even though there are important elements of DNA structure that underpin the technological advances covered in the final sections of the Cell and Molecular Biology Unit.

## Recommendations

### Feedback to centres

It is vital that staff know what is in the current Arrangements so that they are clear about the depth of treatment and scope of topics. Setters use the content of units as stated in the Arrangement to devise questions and marking schemes. Staff should check the content of the resources they rely on to be sure they are adequate for the job.

Centres need to be very clear about the level of demand required for Investigations and the role of the Record Book. They need to know the distinction between Unit Assessment and Course Assessment for the Investigation Unit. Candidates should be told how the Investigation Report will be marked before they begin their planning so that they can have a clear idea of the elements to incorporate.

The marking of Investigation Reports will be different for the session 2002/3. New details are in centres and have to be put into practice for session 2002/3. Details are also available on the SQA website on [www.sqa.org.uk](http://www.sqa.org.uk).

The exam team is aware of the time pressure on candidates in the exam as they cope with the range of format in the different sections. There are several pieces of advice or help staff can give to candidates to ease the pressure; most of them are obvious.

- 1 Master the content of the course: quicker access to knowledge can allow sharper expression, more subtle understanding and better planning when it comes to essays.
- 2 Read questions carefully – some candidates this year read *antibodies* instead of *antibiotics* in an essay title.
- 3 Look for the clues in essay titles to help with planning. (See *Exemplification CDROM*.)
- 4 In data questions learn to make general points concisely, stating trends or hypotheses or conclusions explicitly and then extract relevant details or quantification from tables or graphs to justify the points. There will be no gain if the marker has to infer the point being made from the data quoted.
- 5 Answers to some questions in the Data Handling relate to the text information, not just to tables and graphs. Between ten and thirteen marks in Section B have to test course knowledge.
- 6 Don't forget to state the obvious or simple bits of knowledge on the way to making bigger points.