

## Moderation Feedback - Central

**Assessment Panel:**

**Chemistry**

**Qualification area**

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

**Chemistry, AH, H, Int 2, Int 1 and Access.**

## Central Moderation

### General comments on central moderation activity

Moderation was carried out on incomplete evidence for the first time. This is a useful exercise as moderation looks at the centre's assessment and even incomplete evidence can indicate whether this is in line with national standards; the remaining candidate evidence is then submitted when it becomes available.

### Specific issues identified

There is still some uncertainty about entries on MSOO (Moderation Sample Form). The pass mark is 18/30 for NAB tests at all NQ levels **except** Advanced Higher. Only at AH level is the pass mark 15/30. A surprising number of centres accepted 16/30 as the pass mark at Int.1, Int. 2 and Higher and filled in the MSOO form accordingly.

#### Outcomes 1 & 2

The majority of centres moderated assessed O1&2 accurately and totalled marks correctly. Problems in these centres arose from minor errors in marking rather than systemic errors.

Some centres, however, diverged from the national standard and the following points are worth noting.

1. If a change is made to a NAB question the alteration should be sent to SQA for prior moderation before being used in a unit test.
2. A small number of centres appear to have lost sight of *Update on Chemistry NABs: Higher Chemistry* and *Marking Guidelines; General Information for Markers*. The former was sent to all centres in 2000 and the latter was issued with NAB001, Unit 1 at each NQ level. The moderation team enclosed photocopies of the relevant documents with the feedback sent to each centre where these issues were identified.
3. Marking guidelines are published for NABs at all levels. If a centre disagrees with the published mark scheme then alternatives should be discussed through internal moderation within a centre and any changes should be noted on the mark scheme submitted for moderation. The moderation team disagreed with some amendments made by centres e.g. DO63/10 NAB 001 Q13 a) asks 'name a common laboratory alkali' and a centre awarded 1 mark for the answer 'washing powder'.
4. The document *Marking Guidelines; General Information for Markers* gives advice about awarding half marks (point 16) but whole or ½ marks should not be given for incorrect answers at any level.

### **Outcome 3**

#### **Higher and Int. 2**

Most centres are accurately assessing evidence which is in line with or above national standards but some centres accept very poor work, the main weaknesses being seen in graphs and evaluations. This is unfortunate as the O3 report represents an opportunity to develop both skills and hence improve candidate performance in the course exam.

The National Unit Specification: statement of standards (page 36 Higher Arrangements document) states “Evidence submitted in support of attainment of PC (d) must be in the format of a table or graph(s) as appropriate.....The evaluation should cover all stages of the experiment, including the initial analysis of the situation, and planning and organising the experimental procedures”. On this basis, a graph of time vs concentration with no calculation of rates as a pass for DO69/12 does not meet the required standard.

In a small minority of centres the O3 evidence was not to standard since incorrect calculations, incomplete tables, inaccurate rounding up, missing units and graphs where more than one point had been mis-plotted were identified.

A few centres did not submit evidence for O3 and were therefore ‘not accepted’.

The following points are worth noting.

1. A number of centres accepted O3 reports on Higher Unit 1 PPA 2 which recorded temperatures of exactly 30°C, 40°C and 50°C. Several submitted reports contained identical results and wording. While the collection of results may be carried out as group work, the report must be the individual work of the candidate.
2. One centre submitted O3 evidence on unrevised proforma. As core skills are embedded in the revised PPAs via evaluation, the centre had to reassess candidates using revised proforma before it could be accepted.

#### **Advanced Higher**

The AH report must be completed without the use of a proforma and the problem of unmarked PPA reports persists. If the centre’s assessment is that a candidate has achieved a pass at O3 then there must be some indication on the candidate evidence of how and where the individual has overtaken PCs (b) to (f). Approximately 50% of centres have now adopted best practice of including a checklist of PCs with each report but even when the checklist is present there is often no corresponding indication on the report of where the PCs have been overtaken. Initialled ticks would be sufficient, with a note of the PC achieved.

The procedures tended to be overlong and evaluations tend to be weak in the reports that were moderated. PC(f) states ‘The experimental procedures are evaluated with supporting argument’. Teaching candidates how to approach an evaluation in a PPA report will improve evaluations in the externally assessed Investigation Reports. The candidate should be writing something of value in the Introduction and Evaluation sections; many reports moderated consisted mainly of a regurgitation of written procedures.

## Feedback to centres

Candidate evidence for Outcomes 1 & 2 was generally of a high standard; NABs were assessed accurately and clear explanations were given when marks were awarded for answers which deviated from the mark scheme. If a change is made to a NAB question the alteration should be sent to SQA for prior moderation before being used in a unit test.

Centres should ensure that they consult the *Update on Chemistry NABs: Higher Chemistry (2000)* and *Marking Guidelines; General Information for Markers* (NAB001, Unit 1 at each level).

It must be noted that  $\frac{1}{2}$  marks must not be awarded for Advanced Higher where the mark scheme indicates 1 or 0.

18/30 is the mark required to pass NAB tests at all NQ levels **except** Advanced Higher. Only at AH is the pass mark 15/30.

Candidate evidence should be clearly marked in red ink

For Outcome 3 the following should be noted.

A Unit 1 PPA report (evidence for Outcome 3) must be included in materials sent for moderation at all NQ levels and the reports must be written on revised proforma as these have core skills embedded in them.

Candidates need only redraft those parts of the report which do not meet the required standard.

Moderation is simplified when comments on the PPA reports explain why marking decisions have been made.

Advanced Higher PPA reports should show evidence of marking. It would be useful if an initialled tick indicated where each of the PCs (b) to (f) had been overtaken.

Best practice would be to internally moderate PPA reports to ensure consistency within each centre.

Care should be taken in the marking of graphs. Errors in plotting points and labelling axes require the candidate to redraft. This is also the case where the marking scheme requires a line of best fit and the candidate draws the graph by 'joining the dots'.