

## Moderation Feedback - Central

**Assessment Panel:**

Physics

**Qualification area**

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

Physics – Advanced Higher, Higher, Intermediate 2,  
Intermediate 1, Access 3.

## Central Moderation

### General comments on central moderation activity

The number of centres moderated this year was similar to that of 2002/3. The sampling included three centres for Access 3 level this session.

In general candidates performed well in the theoretical outcomes (O1 and O2). However, the Outcome 3 (O3) assessment continued to show weaknesses in graphical work, in developing conclusions from data and in the evaluation of experimental work in Higher and Advance Higher particularly.

### Specific issues identified

The central moderation event ran very smoothly. The venue was an excellent working environment and was much appreciated by all the moderators. The enclosure of the relevant assessment instrument and mark scheme with the student material aided the work of the moderator. Excellent support was provided by the Quality Assurance administration.

The number of centres submitting incomplete material leading to non-accept outcome had reduced to just 2 centres – 4%.

Overall the application of the mark schemes for the NAB packs was good, however, some centres are awarding half marks where the scheme states (1) or (0) thus tending to lenient marking.

Some evidence for O3 was unmarked and gave no indication of how teachers had deemed candidates to be successful. It was also unclear if rework on the report had taken place.

The performance of candidates for the pc's of Outcome 3 covering conclusions from data/graphical work and evaluations is weak particularly at Higher and Advanced Higher. Inappropriate use of graph drawing packages was evident. The treatment of uncertainties in some cases was not addressed appropriately at Advanced Higher. The experimental activity chosen was not always selected from the suggested activities list and did not meet the required criteria. These factors led to 31% of centres reviewed receiving a 'not-accept' decision.

Evidence of internal moderation procedures was not so clearly visible in the sample reviewed at this central moderation event.

## Feedback to centres

Generally, centres had conducted the assessments fairly and consistently. There was evidence of cross marking/internal moderation in a number of centres.

Candidates performed well in the assessments relating to Outcomes 1 and 2 although some centres were lenient in their interpretation of the mark scheme awarding a half mark where the scheme had allowed either (1) or (0).

For O3, many candidates produced a well-structured report giving procedural details, diagrams and valid conclusions for an experiment at the appropriate level. However, the quality of the graphical work was variable and the evaluation of experimental work at Higher and Advanced Higher level was often weak.

Centres should:

- ensure that the instructions for submission of material are followed. The omission of O3 evidence automatically results in a non-accept outcome. A student that has not completed the unit should be indicated as deferred or fail result until the O3 evidence is available.
- refer to the publication, Physics – General Marking Instructions 1999; (G0924), if queries occur when interpreting the mark schemes for the NABs. This will aid consistency in standards.
- include a statement of the centre agreed amendments to the NAB marking scheme eg alternative answers that have been applied during assessment.
- ensure that their marking of O3 is clear and that, for each candidate, there is a clear indication of the internal assessment decision of the centre staff.
- select an experimental activity from the suggested list for O3. If an alternative activity is to be used a check should be made with the Qualifications Manager to ensure that it is suitable.
- ensure that procedures detailed in the report enable another person to carry out the experiment again and that the report is in the candidates own words.
- consider that 3 experimental readings are not enough to draw a conclusion for a relationship unless justification is given.
- note that when candidates are graphing, the best fit line should not be forced through the origin. If the line fails to provide evidence of direct proportionality, an appropriate conclusion should be given. Discussion on the possible reasons for the result could be dealt with in the evaluation of the experiment.
- ensure that graph drawings packages are used appropriately.
- ensure that uncertainties are considered particularly at Advanced Higher and that values of uncertainties are reflected on when evaluating the experiment.