

Moderation Feedback — Central

Assessment Panel:

Biology

Qualification area:

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

Biology – Standard Grade Practical Abilities

Central Moderation

General comments on central moderation activity

As with last year the sample size was over 50 centres and a marked improvement in submissions was noted with the majority of centres supplying all of the requested evidence.

As in previous years the problems that did arise were the same as those experienced previously and highlighted in previous Senior Moderators Reports.

Once again there was a marked increase in centres using internal verification and for the first time no centres sample was “not accepted” due to arithmetic error.

Specific issues identified

Techniques

Most centres had the candidates successfully master all ten techniques and regular absenteeism was the main explanation given by centres where this was not the case. However, there were centres where **all** the candidates in the sample failed to master a particular technique, usually Technique 10 — Use of a Choice Chamber. As a result a small number of candidates were being penalised a grade. Techniques 4 — Using a Key and Technique 7 — Making a simple line drawing were the other techniques that candidates regularly failed to master/attempt.

Investigations

There was increased evidence of internal verification which should continue to be encouraged.

The Generative Phase (G1-G4)

Candidates in many centres performed poorly in this section and as a result did not perform well throughout the report. A large number of candidates would benefit from more guidance in this section that would allow them to perform better overall.

(If a candidate is helped and no mark awarded the guidelines recommend that a short comment is included on the last page under ‘Teacher’s Comments’.)

There was a noted increase in the number of centres using the ‘Teacher’s Comments’ space at end of the report.

Experimental Skills (E1-E4)

E3a Many candidates continue to make a list of variables rather than stating the specific variable that they themselves controlled.

Many centres awarded a mark for listing three variables rather than all the variables that the candidate must control to ensure valid results.

Several centres penalised candidates for not listing time as a variable that they controlled when it is possible that the candidates themselves did not actively control this variable ie setting up in one lesson and taking results at a later date set by their timetable (a biology lesson in the future).

E4b Several centres penalised candidates doing the seed germination practical for failing to show repetition. The Guidelines allow ‘simultaneous planting of seeds’ as replication.

Recording and Reporting (RR1-3)

RR1 A small number of centres failed to consistently apply the criteria with some centres awarding marks where units were missed out and others penalising this mark if the units were not in the headings.

RR2 The appropriate form of graph still causes problems and centres award marks when data given does not extrapolate through zero.

RR3 Diagrams with labels missing, without qualification in the rest of the report as to the apparatus used, are still being awarded marks.

Other general points

Several centres submitted two investigations where both booklets covered discontinuous variables — the Guidelines state specifically that at least one investigation must involve a continuous variable.

Many centres submitted the same two investigations for all candidates and several centres only completed the reports in late March of the fourth year— is this giving the candidates the opportunity to demonstrate all of the thirteen specified investigative skills?

Many centres are using water baths as a means of controlling temperature but do not allow equilibration before starting and then leave solutions in the bath for a short time making the assumption that the temperature of the solution and water bath are the same.

Several centres used ‘Cell Sap’ or ‘Cell Burst’ as one of the investigations. Moderators are concerned that these are not appropriate as they call for knowledge that is not Standard Grade and may not allow candidates to demonstrate all of the investigative skills.

From the wording of the reports a small number of centres are using group practicals and ‘pooled’ results as a way of working through the investigation. The guidelines state clearly that for assessment purposes the candidates must carry out investigations independently.

Feedback to centres

Candidates should be given the opportunity to attempt **all** techniques and several investigations in their two years of Standard Grade work that allow them to demonstrate all thirteen investigative skills.

Centres should ensure that they are using the latest set of guidelines for assessment.

Internal verification should continue to be encouraged with the proviso that changes in marks and final decisions are obvious to the moderating team.