



**Standard Grade 2013
Internal Assessment Report
Chemistry**

The purpose of this report is to provide feedback to centres on verification in Standard Grade qualifications in this subject.

Standard Grade

Practical Abilities element

General comments

Almost all the centres verified had read the relevant SQA Standard Grade document and understood the requirements of the national standards. One centre consistently reversed the Techniques mark allocation, giving 5 marks for the Write-up and 3 marks for Manipulation. Titrations seen at this verification event were generally accurately assessed and the marking scheme (see the SQA website, Arrangements documents, Standard Grade Revised Arrangements in Chemistry (1999), page 25) was applied accurately. However, 21% of centres verified gave full marks for Technique D1 (titration) even though there was no evidence of subtraction or averaging.

Administration of assessments

All centres used the same assessment instruments for SG Practical Abilities as described in the Standard Grade Revised Arrangements in Chemistry (1999), pages 21 to 29. The assessments seen at this event tended to be more rigorous than in 2012 and only 43% of centres verified tended to be lenient.

Best practice of internal verification was only seen in 36% of the centres verified but most of these were signed and dated by the Internal Verifier.

A number of very detailed techniques pro formas were seen at this verification event. Candidates from 29% of centres verified were given considerable guidance in the form of detailed pro formas used to write-up each of the five techniques. The printed questions were designed to prompt the candidates to give correct responses and thus gain maximum marks. This method of administering the assessment of Practical Abilities (Techniques) has always been discouraged at Standard Grade.

Areas of good practice

The verification team felt that the majority of centres verified at this event had assessed candidates rigorously. There was an improvement in the standard of diagrams with 80% of centres demanding clear, correctly labelled diagrams drawn with a ruler. Assessment of technique E1 was thorough and investigations were generally assessed accurately and consistently. Teaching candidates to present and handle information obtained from titrations and to draw clear, cross-sectional diagrams will benefit them in the Course exam.

Where procedures were in place for regular internal verification through the session, assessment decisions made by all the centre's class teachers were consistently accurate.

Specific issues

It is essential that the instructions provided in the Standard Grade Revised Arrangements in Chemistry (1999), pages 21 to 29 are followed when conducting practical assessments and the following points may be worth noting.

Techniques

- ◆ The write-up for each Practical Technique should be signed and dated by the class teacher.
- ◆ Group D and E Techniques are awarded up to 5 marks for Manipulation and up to 3 marks for the Write-up, not the reverse.
- ◆ B1 Filtration — filter funnel, filter paper, residue and filtrate must be labelled.
- ◆ C2 Solubility — results should be recorded as a table, using the words 'soluble' and 'insoluble'
- ◆ D1 Titration — tabulation of measurements, subtraction and averaging must be carried out before the mark can be awarded.

Investigations

- ◆ Although the majority of centres assessed the investigation reports accurately and in line with national standards, assessment of RR3(d) still tends to be lenient. To obtain this mark, there must be a link between the variables listed and how they were kept constant.
- ◆ Candidates should not be awarded full marks for plotting time (in seconds) and labelling the axis 'rate' or plotting temperature (in °C) and labelling the axis 'heat'.
- ◆ A candidate who records temperatures of 60 °C, 90 °C and 100 °C for hydrochloric acid solution should not be awarded full marks on grounds of health and safety.
- ◆ All marks, including zero, should be entered into the appropriate box for each Investigative Skill listed in the SQA Investigation booklet.