

Principal Assessor Report 2004

Assessment Panel:

Chemistry

Qualification area

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

Chemistry Intermediate 1

Statistical information: update

Number of entries in 2003	723 (Pre Appeal)
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Number of entries in 2004	1408 (Pre Appeal)
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General comments re entry numbers

There was an approximate doubling of the numbers of candidates for the course with the majority of candidates being presented from S4. These candidates would have traditionally been presented for the Standard Grade Science exam.

Statistical Information: Performance of candidates

Distribution of awards

Distribution of awards	%	Cum %	Number of candidates	Lowest mark
A	15.2	15.2	214	42
B	18.0	33.2	253	35
C	21.5	54.7	303	29
D	8.8	63.5	124	26
No award	36.5	100	514	0

Comments on any significant changes in percentages or distribution of awards

Performance in Section A multiple choice questions suggested that the candidate population was very similar to the previous year. The distribution of awards did not vary significantly from 2003. There was a slight improvement in the percentage of candidates gaining an award "A" and "B" (33.2% compared to 30.4% in 2003.)

The percentage of candidates achieving grades "A" and "B" is relatively low reflecting the low ability of the candidates. A considerable percentage of candidates presented for the exam failed to gain an award.

Grade boundaries for each subject area included in the report

Grade Boundaries	Lowest mark	Percentage of maximum marks
A	42	70
B	35	58
C	29	48
D	26	43
No award	0	0

General commentary on passmarks and grade boundaries

- While SQA aims to set examinations and create mark schemes which will allow a competent candidate to score a minimum 50% of the available marks (notional passmark) and a very well-prepared, very competent candidate to score at least 70%, it is almost impossible to get the standard absolutely on target every year, in every subject and level
- Each year we therefore hold a passmark meeting for each subject at each level where we bring together all the information available (statistical and judgmental). The Principal Assessor and SQA Qualifications Manager meet with the relevant SQA Business Manager and Statistician to discuss the evidence and make decisions. The meetings are chaired by members of the senior management team at SQA
- We adjust the passmark downwards if there is evidence that we have set a slightly more demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- We adjust the passmark upwards if there is evidence that we have set a slightly less demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- Where the standard appears to be very similar to previous years, we maintain similar grade boundaries
- An exam paper at a particular level in a subject in one year tends to have a marginally different set of grade boundaries from exam papers in that subject at that level in other years. This is because the particular questions are different. This is also the case for exams set in centres. And just because SQA has altered a boundary in a particular year in say Higher Chemistry does not mean that centres should necessarily alter boundaries in their prelim exam in Higher Chemistry. The two are not that closely related as they do not contain identical questions
- Our main aim is to be fair to candidates across all subjects and all levels and maintain standards across the years, even as arrangements evolve and change.

Comments on grade boundaries for each subject area

The examination was a similar standard to that of 2003 with all questions being accessible to the candidates. The C grade boundary was reduced by 1 mark to take account of two questions in Section B (questions 1 and 4(a)(i)) which proved more difficult than anticipated.

Comments on candidate performance

General comments

Candidates' performance was very similar to that of 2003.

Areas of external assessment in which candidates performed well

Candidates showed good understanding of speed of reaction, metals as conductors and compound name endings. Candidates also completed the graph question well.

Areas of external assessment in which candidates had difficulty

Candidates had difficulty identifying symbols and formulae for atoms, ions and molecules. Knowledge of the need for proteins in the diet, neutralisation and the test for hydrogen gas was poor. Performance in PPA questions was also poor, particularly identifying the factor being varied in the experiment in question 4. The completion of the diagram in question 7 was also done poorly.

Recommendations

Feedback to centres

Candidates' knowledge of simple chemical facts is poor. It would be a benefit to candidates if centres were to have very focused revision programmes in the lead up to the exams.