Principal Assessor Report 2002

Assessment Panel:	**Chemistry**

Qualification area

Subject(s) and Level(s) included in this report	**Chemistry - Intermediate 1**

Statistical information: update

Number of entries in 2001	
Pre appeal	40
Post appeal	41

Number of entries in 2002	
Pre appeal	263
Post appeal	

General comments re entry numbers

The number of entries are indicative of the small number of centres able to offer chemistry at this level.

General comments

The paper appeared accessible to candidates with virtually all of the candidates attempting all of the paper.

Grade boundaries at C, B and A for each subject area included in the report

Maximum mark: 60
(grade boundaries expressed as percentage mark in brackets)

	Mark (lowest)			
Year	Upper A	A	B	C
2002	51 (85%)	42 (70%)	36 (60%)	30 (50%)

General commentary on grade boundaries

Notional percentage cut-offs for each grade

Question papers and their associated marking schemes are designed to be of the required standard and to meet the assessment specification for the subject/level concerned.
For National courses the examination paper(s) are set in order that a score of approximately 50% of the total marks for all components merits a grade C (based on the grade descriptions for that grade), and similarly a score of 70 % for a grade A. The lowest mark for a grade B is set by the computer software as half way between the C and A grade boundaries.

Comments on grade boundaries for each subject area

The grade boundaries were held at the target levels. The paper was felt by the examining team to be of a similar standard to the paper set for 2001. However the mean mark for the paper was considerably lower than in 2001. It was disappointing that so few candidates were able to score more than 42 out of 60 in the paper.

Comments on candidate performance

General comments

The paper appeared accessible to candidates. Few candidates scored single figures in the written section B. However few candidates scored more than 30 out of 40 in the written section.

Areas of external assessment in which candidates performed well

Areas where candidates performed well were

- writing an equation (question 1c);
- giving the formula for propene;
- stating whether metals and non-metals were conductors;
- relating effect on damp pH paper to alkalinity;
- stating the effect of fertiliser pollution on rivers;
- stating why nylon was described as synthetic

The two questions related to graphs (questions 6c and 13bii) were also done well.

Areas of external assessment in which candidates had difficulty

Many candidates found it difficult

- to describe what a molecule is;
- to state the two products when propene is burned in a plentiful supply of air;
- to state that monomers is the term which describes small molecules used to make polymers;
- to state that alloy is the term to describe a mixture of metals;
- to state what is meant by a renewable fuel.

No candidates were able to give soda lime as the name of the chemical which would give an alkaline gas when heated with a protein. In the question where candidates had to work out the percentage of iron in stainless steel a considerable number of candidates gave the answer 324% having worked out the size of the sector angle in the pie chart. In the key (question 11) a number of candidates introduced other information rather than use the given information. The question about how to continue the PPA (question 9) was very poorly done.

Areas of common misunderstanding

Candidates definitely appear to confuse renewable with recycling. Many gave the answer "It can be used again."

Recommendations

Feedback to centres

Candidates continue to be weaker in questions testing knowledge than in questions testing problem solving.

Many candidates only display very limited knowledge of the chemistry covered in the course. Centres should continually seek to reinforce the meaning of even the most basic terms used in chemistry.