

Key Stage 3

2007/2008

REPORT ON ASSESSMENT



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Section 1:

Introduction

This short report on the 2007/2008 Key Stage 3 Statutory Assessment includes:

- commentaries by the Chief Markers for each of the subjects;
- summary statistical information.

Marking Procedures

All marked scripts were returned to CCEA by the markers in early June 2008 so that quality assurance procedures could be undertaken before returning the scripts to schools in late June.

Section 2:

Chief Marker Reports

2.1 INTRODUCTION

This section contains the Chief Marker's report of the marking of the tests in each of:

- English;
- Irish (in Irish-speaking schools);
- Mathematics; and
- Science.

The comments made by the Chief Marker in each subject reflect the views expressed by the markers and senior markers as the marking process was undertaken. Each report, in addition to providing some general points, gives detailed comments about questions within the tests. Heads of Department in each of the subjects might like to disseminate the reports among relevant staff. A major reason for producing and circulating the reports is to help teachers to prepare their pupils for the tests next year.

2.2 KEY STAGE 3 ENGLISH TESTS 2008

Report of Chief Marker

Level Boundaries

Level	3	4	5	6	7+
	17	26	36	47	56

This year, evidence from the tests suggests that for most pupils, time was not a significant factor and few unfinished scripts were forwarded for marking. Pupils should be reminded to take notice of the timings suggested by the invigilator.

Paper 1

Markers reported that all pupils showed engagement with this text. In fact, it was reported that responses indicated the text was 'genuinely enjoyed' by pupils. It was felt that this paper was enabling for the better candidates but also accessible for the weaker pupils. Bullet points proved effective in directing responses and enabled pupils to attempt all answers. It was reported that very few answers contained information from outside the given line references. There were some reports of 'rushed' writing answers because some pupils produced very lengthy answers to the reading questions.

Q.1 Look again at lines 1 to 4.

From lines 1 to 4, write down two things Fiona notices about the abandoned puppy.

This question was considered to be accessible and was a good introduction to the paper. The inclusion of line numbers gave added support for even the weakest pupils and it was reported that most pupils scored 2 marks. Marks were not awarded for repetition of facts contained in the question, i.e. abandoned, puppy. It was reported that most pupils now do not waste time by giving too much information for this introductory question.

Q.2 Look again at lines 5 to 25.

What do you learn about the bus driver from these lines?

Give evidence from **lines 5 to 25** to support your answer.

You should write about:

- the things he says and does;
- what these things tell you about him.

This question was accessible with all candidates making a good attempt to answer the question by identifying some characteristics of the bus driver. The bullet points again proved very helpful to all pupils. There was a range of answers with some very focused responses even at the lower levels. Some answers were characterised by a narrative approach or long quotations without explanation or development required for higher marks but there were some very astute and perceptive answers. Many answers demonstrated a sophisticated appreciation of the bus driver's character, e.g. through the reactions of the old man and the other passengers, his threatening and intimidating behaviour etc. While there were perceptive comments made about the driver, the answers were not developed fully. An understanding of these complexities with appropriate explanation and development was necessary to gain the higher marks. However, many answers, even at the lower levels, did try to support points made with textual reference.

Q.3 How does the writer help you to understand Fiona's feelings in this passage?

Remember to comment on **the writer's choice of words and phrases** throughout the passage.

You should write about :

- how the writer shows Fiona's feelings as she takes the puppy home (lines 1 to 25);
- how the writer shows Fiona's feelings towards Jack (lines 26 to 60);
- how the writer shows Fiona's changing feelings after her mother comes home (line 61 to the end).

This year, 'how the writer' was included in each bullet point to remind pupils that this question concentrated on showing an understanding of the writer's craft. This question was described as 'the real discriminator' and showed evidence of some excellent teaching with pupils being able to demonstrate techniques learned and being able to discuss the effect of such techniques on the reader.

Some candidates focused on analysis of Fiona's character discussing at length how techniques used proved she was a particular type of person rather than on how the writer showed how she was feeling. It was obvious that some pupils were well prepared on writer's craft but failed to apply this knowledge to answering the question. Some answers tended to track Fiona's feelings at each stage. Developed comments tended to explain how these feelings indicated her particular character traits. There was also evidence that some pupils had 'learned' responses that were not applied properly to this particular context. There was some indication that the third bullet point was not dealt with in sufficient detail, some markers suggesting that more time was spent on the first two bullet points.

Some markers reported that in some cases pupils under performed by losing sight of the question and responding to the bullet points in a very narrative fashion.

Pupils at the lower levels were able to score well if they followed the bullet points and it was felt that such pupils were not penalised in this demanding question. In many 'full' answers it was clear that there was an implicit understanding and recognition of the writer's craft. Some answers missed the words 'comment on the writer's choice....' and gave a list of the words and phrases that indicated her thoughts and feelings without the comment and analysis necessary for higher levels.

Some answers tended to cite a range of evidence in tracing and describing Fiona's thoughts and feelings but without analysis, development and comment on the effect of the writer's use of language. Very often a quotation was stated with the comment 'This shows she loved her brother.....'. Some answers from more able pupils contained references to literary techniques used with no explanation of the effect of these techniques, e.g. 'this metaphor is used.....This shows that she is very sad.' Further development and explanation is needed for a mark in Level 7 and above.

Q.4 I was only trying to help.

- **Use this as a title for your writing.**

Your writing can be real or imaginary.

This title allowed for differentiation of marks and allowed a flexible approach. All pupils were able to attempt this piece of writing and the open title allowed pupils free rein to demonstrate their ability. It was reported that the full mark range was attained and there were many lively and enjoyable responses. Many pupils clearly found the task engaging and enjoyed the opportunity to display their skills although there seemed to be a concentration on household accidents and muggings. There were many highly imaginative responses with some very original scripts demonstrating a skilful handling of atmosphere, character, dialogue and plot.

Some markers reported a number of scripts responding to last year's title with the inclusion of this year's title as the final sentence. These were not always successful.

Some answers failed to gain higher marks as they were disadvantaged by poor secretarial skills and in particular, basic punctuation errors rather than spelling. The ability to develop work using syntax, punctuation, vocabulary etc, proved to be the discriminating factor.

Paper 2

Markers reported that pupils' answers showed definite evidence of engagement with the text. It was accessible to all levels and enabled pupils to show skill in locating information, show understanding of purpose while appreciating the impact of persuasive language and techniques.

Q.1 Look again at the section on **page 2** headed **Horns**.

From this section, write down two things for which people use rhino horns.

There were no obvious difficulties with this question and most pupils scored full marks.

Q.2 Look again at the whole of **page 2** headed **MEET THE BLACK RHINO**.

On this page, in what ways does the rhino seem to be an extraordinary animal?

You should write about:

- the information page 2 gives about Black Rhinos;
- how this information makes the Black Rhino seem to be an extraordinary animal.

A number of markers reported that some very able pupils listed the extraordinary features stated on this page without dealing with the second bullet point commenting on how these attributes made the animal seem extraordinary, but this question elicited the full range of responses. Many answers assumed that a list of features answered the first bullet point and by implication, the second bullet point. Pupils should be reminded that both parts of the question should be answered. Some lower level answers tended to be factual/narrative without the comment and development needed for higher level marks. Even the less able could identify the main features of the rhino. More able pupils demonstrated mature insights and fully developed points made. Many answers selected appropriate quotations from the text but included no comment. Some pupils treated this as an analytical question and dealt with writer's craft without explaining how each feature of the rhino made it seem extraordinary.

Q.3 Now look again at **all four pages of the leaflet**.

How does the whole leaflet try to persuade the reader to help save the Black Rhino?

Give evidence from **all four pages** to support your answer.

You should write about:

- how facts and details are used to persuade the reader that the Black Rhino should be saved;
- how words and phrases are used to persuade the reader that they should help;
- how the layout of the leaflet, including headings and pictures, is used to persuade the reader to help save the Black Rhino.

There was evidence of thorough preparation by teachers. Some answers tended to move methodically through each bullet point treating each as a question making general comments, but failed to link comments to the stem of the question asked thus losing focus on this particular context. Each bullet point was written in order to

remind the pupil to concentrate on explaining the writer's technique in persuading the reader to help save the Black Rhino. It was reported that most pupils were able to stay on task and focused on the methods of persuasion. The language aspect proved challenging with many quotations and understanding of persuasive techniques but with little relevant comment on their effect and purpose - a pre-requisite of higher level marks. Some answers that dealt with layout stated that there was a picture, heading etc., very often accompanied with the phrase 'this persuades us', without analysing its effectiveness. Answers must contain development of points made to attain the highest marks.

Q.4 Some people are good to animals; other people are not.

Write an article for your school magazine giving your views on how people treat animals.

This question elicited answers covering the full mark range and pupils at all levels were able to respond at an appropriate level, usually with a clear sense of audience and purpose. Some answers did lose the sense of audience and some pupils wrote a 'talk' rather than an article. There was a full range of responses with even the weakest pupils showing an ability to engage with the task and more able pupils produced some very cogent and engaging answers. Pupils at all levels tended to concentrate on the suggestions given with some writing a little on a number of different ideas but some very able pupils covered a wider range of ideas.

Answers at the lower levels scored well because passionate and persuasive accounts made up for inadequacies in the technical aspects.

Scripts showed that most pupils had sufficient time to complete this question and the test as a whole.

2.3 KEY STAGE IRISH TESTS 2008

Report of Chief Marker

Level Boundaries

Level	3	4	5	6	7	8
Tier A	12	30	45			
Tier B			21	30	38	48

Reading, Tier A

Pupils generally coped well with Tier A, although the tendency to give too much information, which is not needed until further questions, is still evident at this level. Some pupils still ignore the rubric when asked to give **dhá phointe** or **dhá shampla** and, therefore, lose marks.

With the question in which the pupils are asked to explain words/phrases in their own words, some pupils still have a tendency to 1) explain the phrases in English or 2) and perhaps more significantly, give examples in the text of when it is used. As there are 8 marks going for this, this question is the main difference between those pupils who score highly and those who do not.

Writing, Tier A

There was a good range of answers here. Pupils should pay attention to punctuation and spelling and, again, need to pay particular attention to the rubric, as a story plan is laid out in the paper. The pupils who scored the highest marks are those who followed the rubric closely.

Reading, Tier B

Pupils generally coped well with Tier B, although the tendency to give too much information, as was the case in 2007, is still evident at this level.

Some pupils still ignore the rubric when asked to give **dhá phointe** or **dhá shampla** and, therefore, lose marks. On the question in which the pupils are asked to explain words/phrases in their own words, some pupils still have a tendency to 1) explain the phrases in English or 2) and perhaps more significantly, give examples in the text of when it is used.

As there are 5 marks going for this, this question is the main difference between those pupils who score highly and those who do not.

Pupils should realise that 'Cén sórt duine...?' implies character analysis, not physical description.

Writing, Tier B

Pupils scored reasonably well at this level, with candidates choosing a wide range of answers. The new layout was adhered to well and those pupils that followed the rubric generally scored highly.

General Comments

As was the case in 2007, candidates seem to be entered for more appropriate levels, but of those candidates who are scoring high marks in Tier A, a significant number would have been able to cope with Tier B.

2.4 KEY STAGE 3 MATHEMATICS TESTS 2008

Report of Chief Marker

Scaled Level Boundaries

Level	3	4	5	6	7	8
Tier A	61					
Tier B	69	104	143			
Tier C		83	118	152		
Tier D			80	107	142	
Tier E				82	117	153

Key Stage 3 Mathematics Tests 2008

Report of Chief Marker

Each of the five papers provided ample opportunity for pupils of all abilities to respond positively and exhibit their mathematical proficiency. At all levels pupils were generally well prepared and the majority competently demonstrated their knowledge and understanding of a range of mathematical concepts within the time available.

A small core of pupils remains unwilling to show how they arrived at their solutions or to check the sense of their answers. Evidence also suggests that some pupils do not have access to the correct mathematical instruments during the test, namely protractors, rulers and calculators, which is placing them at a distinct disadvantage. The combination of these factors resulted in a minority of pupils failing to perform as well as expected, a situation which could easily have been rectified with better preparation before the tests.

Those questions which require the articulation of a valid explanation or reasoned response continue to prove most difficult for pupils across the complete ability range. It is incumbent upon teachers to provide more opportunities for pupils to develop their communication skills as they form one of the bedrocks of the revised curriculum.

Questions designed to assess pupils' understanding of fractions also continue to present difficulties at all levels. Too often pupils ignore the subtle hint given in the question that an exact value is required and proceed to use a calculator to produce a decimal answer. Teachers need to encourage pupils to read and answer the question they have been asked, otherwise marks are invariably lost by pupils either trivialising or modifying the question unnecessarily.

Other evidence would also signify that pupils across the ability range have not fully grasped some of the essential concepts of Shape, Space and Measures. For example, pupils were labelling a sphere as a circle, confusing the area and perimeter of shapes, struggling to find the area of a triangle, inaccurately measuring an angle and stating bearings using only two digits. The responses

to questions involving basic conventions and the manipulation of algebraic expressions indicate that pupils across the suite of papers could benefit from more time being spent developing their understanding of these aspects of mathematics.

The number of pupils who are combining the £ and p sign incorrectly or not using the correct notation (e.g. £71.6 to represent £71.60) when answering questions involving money is almost negligible which is reflecting the good practice being developed in classrooms and is to be commended. The decline in the number of instances of ratios being used to represent probabilities is also most welcome.

The following statements highlight the misconceptions and common errors associated with particular questions in each paper. Teachers may wish to help pupils improve their mathematical skills by noting the difficulties which have been identified.

Paper 1

The majority of pupils were able to attempt each question and complete the paper within the time allocated. Generally responses to questions addressing the attainment targets of Handling Data, Number, and Algebra were well attempted despite evidence that some pupils did not have access to a calculator or a ruler. Unfortunately a few pupils at this level are still using £ and p when recording money. The main areas of difficulty arose in questions involving Shape, Space and Measures, specifically using a calendar, the identification of 2D and 3D shapes, accurate measurement of a length, naming parallel lines, identifying lines of symmetry, recognition of angle types and reading scales.

Some of the pupil responses to question 20d reflected their own opinions or social attitudes rather than a mathematical interpretation of the data as anticipated, for example: *'I think it's terrible', 'Just put your seatbelt on', 'This is a bad result', 'In 2002 you can tell that people were driving too fast and drink driving', 'People need to watch when they are driving', 'You will have to be more careful, speed cameras are put in', 'There lucky there not dead there still living', 'Stay away from Wales and stay alive'.*

Evidence suggests that the following questions were well answered by the majority of pupils.

Q. 1, 3, 4, 5, 8, 10, 11 and 13.

The following comments refer to the remaining questions in Paper 1.

Q Comment

- | | |
|----|--|
| 2a | A small number of pupils at this level are still using £ and p to represent money e.g. £9.61p |
| 2b | In part (b) a considerable number of pupils listed all the prices and totalled them incorrectly suggesting they may not have had access to a calculator. |
| 6b | A very common answer was 5 Thursdays with some pupils suggesting that February has 31 or 32 days. |

- 7b The accuracy of measurement was generally very poor; many pupils ignored the units on the answer line writing 5.5cm and others stated the perimeter.
- 9 A common response was to describe the sphere as a circle.
- 12b The shape was commonly described as a hexagon and there was considerable variation in how to name a line parallel to BC, e.g. b to c, b-c, vertical.
- 14 A significant number of pupils interpreted 2 courses to mean 2 meals for £8.95. Some new meals were created (fish and chips) and there was little or no logical structure to pupils' responses - a lot of repeated choices appeared.
- 15c Some pupils found this part difficult because they did not have a calculator.
- 16b Many pupils misinterpreted the word times and just subtracted the distances giving a common answer of 6270.
- 17 A considerable number of pupils experienced difficulty in all parts of this question, particularly the identification of the largest acute angle (90° and 150° were common).
- 18 A substantial number of pupils did not show their working in this question losing valuable marks. The most common errors were forgetting to double their answer to part (b) or taking values from the 10 nights column.
- 19 A minority of pupils experienced difficulty reading the scale in part (a) and indicating the correct speed in part (b); 40 litres was a common answer in part (c).
- 20 Part (d) proved the most difficult for the majority of pupils as indicated above.

Paper 2

The majority of pupils were able to complete the paper within the time allocated and generally questions addressing the attainment targets of Handling Data and Number were well attempted. There is evidence that some pupils did not have access to a protractor and of those who did, some experienced difficulty in using it properly; a similar statement could be made about calculators. Responses to questions 8, 10, 12 and 18 clearly indicate that a number of pupils did not use a ruler to complete the diagrams. Unfortunately those questions involving aspects of Algebra tended to prove more taxing for pupils entered in both tier A and tier B.

Evidence suggests that the following questions were well answered by the majority of pupils.

Q. 1, 4, 9, 10, 11, 14, 15, 16, 17 and 19.

The following comments refer to the remaining questions in Paper 2.

Q Comment

- 2 It was clearly evident that many pupils were unfamiliar with this method of representing factors; a common response was 3 and 21 in part (b).
- 3 Time continues to present difficulties for all but the best pupils at this level. The most common misconceptions being that only 3 digits are needed to represent a specific time on a 24 hour clock and 100 minutes equate to one hour (in part (b) 138 minutes very often became 1 hour 38 minutes).
- 5 M was a common answer to part (ai). In part (b) a significant number of pupils found it difficult to express their reasoning clearly.
- 6 Pupils need to check their answers and have more practice with inverse operations as many responses made absolutely no sense, for example in part (d), 544×8 was very common.
- 7 The majority of pupils struggled with this question; a high percentage of answers stated that $6^2 = 12$ and $3^9 = 27$. Part (b) proved equally problematic as very few fully correct answers were seen.
- 8 Some pupils calculated the perimeter in part (a) and in part (b) some pupils were unable to 'see' the full shape responding with 9 cubes. In part (c), many pupils were only able to plot one of the vertices correctly and very few used tracing paper to help them complete the symmetrical shape.
- 12 This was by far the most poorly attempted question on the paper. Only the best pupils were able to use the scale correctly in parts (a) and (b). Recognition that 112° is an obtuse angle and should be drawn as such was not evident. In many cases an angle of 68° was drawn, sometimes in the middle of the line.
- 13 The majority of pupils found part (a) particularly difficult; many were unable to follow the method correctly with some finding 12% of £4 or 4% of £15. Part (b) did not appear any easier for many pupils with $3n$, n^3 and $20 + c$ being common answers.
- 18 A considerable number of pupils drew one 2×3 rectangle leaving out the 6×3 face, essentially treating the cuboid as an open box.
- 20 Only the best pupils were able to complete both parts of the function machine correctly; d6 appeared very often.

Paper 3

Once again the majority of pupils were able to complete the paper within the time allocated and generally questions addressing the attainment targets of Handling Data and Number were well attempted. It was pleasing to see that some pupils had used tracing paper to complete the rotation in question 9; these pupils scored full marks and perhaps some lessons could be learned from this sensible practice.

Unfortunately those questions assessing the interpretation of a scatter graph, aspects of Algebra and Shape, Space and Measures proved particularly difficult for Tier B candidates. The simplification of algebraic expressions, stating rules in words and the concepts of factors, multiples, area and transformations still appear to confuse even the more competent students. Yet again, too many pupils failed to show their working out; this was clearly reflected by the level which they were awarded.

Evidence suggests that the following questions were well answered by the majority of pupils.

Q. 1, 2, 6, 7, 8, 12, 13, 15, 17 and 18.

The following comments refer to the remaining questions in Paper 3.

Q Comment

- 3 A considerable number of pupils experienced difficulty with basic algebraic conventions quite often writing $q5$ and $b4a$; many were unable to fully simplify the expression in part (b).
- 4 A small number of pupils calculated the perimeter rather than the area. Many pupils correctly calculated 3.0976 for the area of the stamp but incorrectly rounded to 3.11, 3.12, 3.2 etc, and some pupils 'rounded' 3.0976 to 309.76
- 5 A significant number of pupils misinterpreted the scale on the horizontal axis in part (b) incorrectly giving 12.5 or 13 in part (i) and 19 in part (ii).
- 9 This question proved extremely difficult for all but the best pupils. In part (a) the most common error was to move the shape left and down 5 squares. Part (b) produced many incorrect responses such as clockwise rotations, anti-clockwise rotations about the wrong centre (0, 0) and the use of (2, -1) as the vertex of the image shape.
- 10 Some pupils ignored the question in part (a) and found the mean file size; others found difficulty reading the maximum and minimum values. There appears to be a school of thought which believes that a line of best fit has to go through the origin; this notion should be dispelled. A significant number of pupils were unable to describe the correlation and some gave an algebraic equation for their answer.
- 11 In part (b), parallelogram and diamond were common answers; pupils need to learn and use the proper mathematical name of shapes.
- 14 There was little evidence of sensible algebraic responses for pattern number n , the most popular answer being $3n$ or $n+3$ which led to 'add 3' in part (b). In part (c),

many pupils 'counted on' rather than substituting, whilst others lost marks by applying their correct rule inaccurately.

- 16 A considerable number of pupils still consider 1 to be a prime number.
- 19 Many pupils were unable to identify the correct lengths to use when calculating the area of the triangle. Actually calculating the area of a triangle continues to confound many pupils at this level; the most common misconception is forgetting to divide by 2. It was clear from many of the answers given in part (c) that the application of fractions in a practical situation is not well understood; $\frac{1}{3}$ was fairly common.
- 20 A significant number of pupils realised 16 and 16 were two of the correct values but failed to find the other two in part (a). Plastic and paper was the most common response in part (b) as they add up to 10, suggesting that many pupils thought that the pie chart had been divided into 20 parts not 18.

Paper 4

It is pleasing to report that most pupils did not experience any major difficulty with those questions which involved Pythagoras, conversion graphs and aspects of Handling Data, in particular those assessing probability. Unfortunately the same cannot be said of questions addressing the solution of linear equations, finding the area of a triangle, the area and circumference of circles and the use of bearings. Question 14 was designed to test the manipulation of fractions and asked for exact values; by converting the fractions to decimals, exact values cannot be calculated. Pupils need to recognise when they do this that they are changing the nature of the question and cannot gain full marks.

Once again, these concerns are compounded by a significant number of pupils failing to appreciate the importance of showing sufficient method to merit even one mark in some cases.

Evidence suggests that the following questions were well answered by the majority of students.

Q. 1, 3, 5, 8, 10, 11, 13, 16, 18, 19 and 20.

The following comments refer to the remaining questions in Paper 4.

Q Comment

- 2 In part (b), many pupils successfully added the like terms to complete the top row; however the subtraction required for the bottom row commonly resulted in $a + b$.
- 4 Some pupils multiplied the two marked sides correctly to give $10x^2 + 15x$, whilst others added the two sides to give $7x + 3$; these answers clearly indicate they have limited understanding of the term perimeter.

- 6 This question proved difficult for the majority of pupils who weren't able to produce correctly the evidence to show which bottle gave the best value. Some divided without any clear idea of what their answers meant whilst many pupils appeared to calculate correctly the cost of 1ml of shampoo in each bottle but then proceeded to write that the more expensive one was better value for money - possibly confusing £/ml with ml/£. Others did not show enough work to deserve one of the two marks available.
- 7 Very few pupils scored well in this question as the scale of 1cm to 4km presented problems for a large numbers of candidates. Also a significant number of pupils obviously did not know that bearings are measured from the north or that the angle is measured clockwise and that 3 figures are required to identify a bearing correctly.
- 9 A reasonable number of pupils were awarded one mark for 178.50 or 3759 however it was evident that only more able pupils were able to complete the process and access full marks.
- 12 Solving equations proved difficult for many pupils, particularly when the unknown term appeared on both sides of the equation. Many also experienced problems expanding the bracket correctly; $4x - 2 = 7$ was a common sight. In part (b) few pupils expanded the brackets correctly to give an a squared term (often $2a$ - therefore trivialising the question). Simplifying the expansion was also a problem as the signs were usually wrong and some pupils combined the a and a^2 terms to give $9a^2 + 24$.
- 14 In part (a), many pupils were able to subtract one quarter from one third to give one twelfth but did not know how to divide one by this fraction to give an exact value. A popular answer for part (b) was $4 \frac{12}{20}$ indicating that no attempt was made to find a common denominator and confirming a lack of understanding of how to add two mixed numbers or fractions. The 'of' in part (c) was interpreted frequently as a division sign.
- 15 In part (a), the most common misconception was to divide 20.25 by 4 to find the value of x . In part (b), finding the two areas and equating them was a task beyond most pupils; $7y$ was often used as the area of the triangle repeating the common error in Paper 3 of forgetting to divide by 2.
- 17 The two common misconceptions here were either using the wrong circle formula or calculating with the diameter instead of the radius. Only the stronger candidates were able to supply sufficient work to justify their answer and score full marks in part (b).

Paper 5

This paper was successful in providing opportunities for the best pupils to show how well they had prepared for some of the topics at this level. Many of these candidates had no difficulty with the questions addressing the mean, mode and median, grouped frequency tables and frequency polygons, probability, trial and improvement, standard form and trigonometry. It is also pleasing to note that fewer candidates at this level are struggling with the concepts of highest common factor and lowest common multiple.

As with earlier papers, the least well attempted questions involved the manipulation of algebraic expressions and aspects of Shape, Space and Measures. Three questions in this paper also required pupils to give a reason for their answer; only the better candidates were able to demonstrate their communication skills and gain access to full marks. More opportunities need to be provided for all pupils to practise these essential skills.

Evidence suggests that the following questions were well answered by the majority of students.

Q. 3, 4, 5, 9, 10, 11, 13, 14, 15, and 19.

The following comments refer to the remaining questions in Paper 5.

Q	Comment
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- | | |
|----|--|
| 1 | In part (b), the scale factor was often given as 2. |
| 2 | At this level, too many pupils are failing to use appropriate mathematical language in their responses resulting in poorly worded explanations. Many pupils could 'see' the difference but referred to the y -axis, not the scale; others made a vague statement about girls sending more text messages but didn't use statistical terms such as range, median etc to support their reasoning. |
| 6 | Many pupils did not read this question carefully enough, responding with the number of individual shoes and not pairs as requested. |
| 7 | Most pupils were able to calculate 855cm^3 for container B but few were able to place the four containers in the correct order, suggesting they did not understand the relationship between cm^3 and litres. |
| 8 | Only the best pupils were able to write down the reciprocal correctly in part (a). In part (b) very few candidates recognised the denominators to be square numbers resulting in even fewer correct answers for the n th term. |
| 12 | The use of indices in algebra is clearly a difficult concept for many pupils. In (ai) both x^5 and x^9 appeared quite often when the term inside the bracket was squared. In (aii) the most common errors were forgetting to multiply the numeric parts of the expression together or writing the product of the x terms as x^3 . In part (b) only the best pupils obtained an x^2 term and a considerable number of pupils calculated -2×-3 to be -6 . |
| 16 | Frequently the 2 equations were just added together, not solved simultaneously. |
| 17 | Only a few pupils were able to calculate the original price of the MP3 player correctly. The majority calculated 12% of £99 correctly and then added this value to the sale price to calculate the original price. This type of question has been asked many times before; however it would appear that pupils continue to struggle with the concept of reverse percentage calculations. |

- 18 Once again only the better pupils were able to find both lengths correctly; many found the length of AC but failed to subtract 3.6m for the length BC.
- 20 Some very ingenious methods were used to arrive at an answer of 39.75m^2 . Unfortunately some pupils multiplied the wrong lengths together to find the area of the triangle but still ended up with 13.5m^2 in part (a). Even though the formula for the area of a trapezium was given, only the best pupils were able to set up an appropriate equation and solve it correctly in part (b).

2.5 KEY STAGE 3 SCIENCE TESTS 2008

Report of Chief Marker

Level Boundaries

Level	3	4	5	6	7	8
Tier A	68	101				
Tier B		50	81	103		
Tier C			55	85	105	
Tier C+Ext						170

The Key Stage 3 tests were very well received again this year. Candidates of all abilities were able to show positive achievement across all areas of the programme of study. Both teachers and candidates expressed positive comments about the tests.

There was clear evidence that the candidates had been well prepared by their teachers to answer questions from the full range of topics covered by the programme of study.

The number of candidates sitting the tests this year was down again on last year due to the decision by some more schools not to take part. This is as a result of the tests being no longer compulsory. However, the overall outcomes were very similar to previous years.

Tier A papers were slightly more demanding than last year and as a result the grade boundaries were adjusted to take account of this change.

Tier B papers were also slightly more demanding and as a result the grade boundaries were adjusted to take account of this change.

Tier C papers were also more demanding than last year and so the grade boundaries were adjusted to take account of this change.

The extension paper proved to be of a similar standard to last year and so the grade boundary remained the same.

The overall quality of the marking this year was excellent with all senior markers praising the members of their teams for their hard work and the comments from individual markers were extremely complimentary about the whole marking procedure.

Section 3:
Summary Statistics

3.1 INTRODUCTION

A Northern Ireland Summary of the outcomes of Key Stage 3 assessment in each of English, Mathematics and Science is given. Northern Ireland summaries for each subject by school type (grammar/secondary) and by gender (male/female) are also given. Northern Ireland summaries for Irish are not included because of the small number of schools involved. Irish-speaking schools, however, have been supplied with summary statistics for Irish.

3.2 NORTHERN IRELAND SUMMARY

The statistical summaries are set out as percentages. The 2008 figures have been adjusted since the issue of provisional statistics in August. The adjustments take account of the outcomes of requests for remarks. The 2006/2007 outcomes are included for comparisons. **Please note that when comparing the results data with previous years it should be borne in mind that the Key Stage 3 Tests in all subjects and Teacher Assessment in Science are now voluntary.**

ENGLISH

	Abs	EX	N	W	1	2	3	4	5	6	7	8
Teacher Assessment (%) 2007		1.5		0.1	0.3	1.1	5.2	15.6	25.4	29.4	19.3	2.1
2008		0.8		0.1	0.1	1.0	5.3	14.8	26.5	29.2	19.5	2.6
Tests (%) 2007	24.8	0.9	0.7				3.3	13.4	25.3	20.1	11.5	
2008	35.3	0.9	0.6				3.6	12.2	22.1	16.3	9.0	

** In the tests in English, Levels 7 and 8 have been combined into a single band 'Level 7 and above'. For a pupil achieving this band, the result is recorded as '7+'.*

MATHEMATICS

	Abs	EX	N	W	1	2	3	4	5	6	7	8
Teacher Assessment (%) 2007		1.3		0.2	0.3	1.2	7.6	16.9	23.8	22.4	20.6	5.8
2008		0.6		0.1	0.2	1.2	7.6	17.4	22.8	22.7	21.3	6.2
Tests (%) 2007	24.3	0.5	1.5				6.5	14.1	20.2	16.4	12.9	3.7
2008	36.7	0.4	0.7				4.3	10.0	21.1	12.5	11.6	2.7

SCIENCE

	Abs	EX	N	W	1	2	3	4	5	6	7	8
Teacher Assessment (%) 2007		22.3		0.2	0.3	0.5	5.0	16.7	21.3	20.2	11.1	2.4
2008		33.4		0.1	0.1	0.4	4.1	14.5	19.3	16.5	9.4	2.3
Tests (%) 2007	27.5	0.5	1.0				4.2	18.4	20.7	16.6	9.3	1.7
2008	41.1	0.4	0.8				3.6	15.9	17.0	13.4	6.5	1.3

Notes

N signifies that, on the occasion of the test, pupils did not show attainment at one of the levels available.

EX signifies that the pupils were exempt from more than one attainment target or from the tests.

ABS signifies that the pupils were absent from one or both of the tests.

KEY STAGE 3 NI SUMMARY BY SCHOOL TYPE BY GENDER 2007/2008
ENGLISH

GRAMMAR

Teacher Assessed	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %	0.0		0.0	0.0	0.0	0.4	12.5	49.4	33.4	4.1		0.1
Cum %	0.0		0.0	0.0	0.1	0.5	12.9	62.4	95.8	99.9		100.0
Female %	0.0		0.0	0.0	0.0	0.0	3.0	36.2	51.5	9.1		0.1
Cum %	0.0		0.0	0.0	0.0	0.0	3.1	39.3	90.8	99.9		100.0
Total %	0.0		0.0	0.0	0.0	0.2	7.7	42.8	42.5	6.6		0.1
Cum %	0.0		0.0	0.0	0.0	0.2	8.0	50.8	93.3	99.9		100.0

Test Level	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %		0.0			0.0	0.5	9.4	21.3	13.2		55.5	0.0
Cum %		0.0			0.0	0.5	10.0	31.3	44.5		100.0	100.0
Female %		0.0			0.0	0.0	2.2	20.2	24.4		53.1	0.0
Cum %		0.0			0.0	0.0	2.3	22.5	46.9		100.0	100.0
Total %		0.0			0.0	0.3	5.8	20.8	18.9		54.3	0.0
Cum %		0.0			0.0	0.3	6.1	26.9	45.7		100.0	100.0

SECONDARY

Teacher Assessed	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %	0.1		0.1	1.2	11.8	29.4	36.8	15.6	3.2	0.1		1.6
Cum %	0.1		0.3	1.5	13.3	42.7	79.5	95.1	98.2	98.4		100.0
Female %	0.2		0.0	0.3	4.5	17.6	39.2	27.8	9.5	0.2		0.7
Cum %	0.2		0.2	0.5	5.0	22.6	61.8	89.6	99.1	99.3		100.0
Total %	0.2		0.1	0.8	8.2	23.6	38.0	21.6	6.3	0.2		1.2
Cum %	0.2		0.2	1.0	9.2	32.8	70.8	92.4	98.7	98.8		100.0

Test Level	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %		1.7			9.0	25.3	29.4	9.1	1.3		22.7	1.6
Cum %		1.7			10.6	35.9	65.4	74.4	75.7		98.4	100.0
Female %		0.3			2.3	13.2	34.5	18.9	5.3		24.9	0.6
Cum %		0.3			2.6	15.8	50.3	69.2	74.5		99.4	100.0
Total %		1.0			5.7	19.3	31.9	13.9	3.3		23.8	1.1
Cum %		1.0			6.7	26.0	57.9	71.8	75.1		98.9	100.0

**KEY STAGE 3 NI SUMMARY BY SCHOOL TYPE BY GENDER 2007/2008
MATHEMATICS**

GRAMMAR

Teacher Assessed	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %	0.0		0.0	0.0	0.0	0.3	7.8	29.7	47.6	14.5		0.1
Cum %	0.0		0.0	0.0	0.0	0.3	8.1	37.8	85.4	99.9		100.0
Female %	0.0		0.0	0.0	0.0	0.3	5.6	27.4	50.1	16.5		0.1
Cum %	0.0		0.0	0.0	0.0	0.3	5.9	33.3	83.4	99.9		100.0
Total %	0.0		0.0	0.0	0.0	0.3	6.7	28.5	48.8	15.5		0.1
Cum %	0.0		0.0	0.0	0.0	0.3	7.0	35.5	84.4	99.9		100.0

Test Level	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %		0.2			0.0	0.2	4.0	13.9	25.4	6.4	49.8	100.0
Cum %		0.2			0.2	0.4	4.5	18.4	43.8	50.2	100.0	100.0
Female %		0.2			0.0	0.2	3.8	11.4	25.1	7.2	52.1	0.0
Cum %		0.2			0.2	0.4	4.2	15.6	40.7	47.9	100.0	100.0
Total %		0.2			0.0	0.2	3.9	12.7	25.3	6.8	50.9	0.0
Cum %		0.2			0.2	0.4	4.3	17.0	42.3	49.1	100.0	100.0

SECONDARY

Teacher Assessed	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %	0.1		0.0	1.6	13.7	28.6	31.7	17.8	4.7	0.7		1.1
Cum %	0.1		0.2	1.7	15.4	44.0	75.7	93.5	98.2	98.9		100.0
Female %	0.1		0.0	0.8	9.7	26.9	33.8	21.4	6.0	0.7		0.5
Cum %	0.1		0.2	0.9	10.7	37.6	71.4	92.8	98.8	99.5		100.0
Total %	0.1		0.0	1.2	11.7	27.7	32.7	19.6	5.3	0.7		0.8
Cum %	0.1		0.2	1.3	13.1	40.8	73.5	93.1	98.5	99.2		100.0

Test Level	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %		1.2			7.6	16.9	32.4	11.7	3.2	0.3	26.1	0.6
Cum %		1.2			8.8	25.7	58.1	69.8	73.0	73.3	99.4	100.0
Female %		0.7			5.6	14.7	30.7	13.5	4.2	0.2	30.2	0.3
Cum %		0.7			6.3	20.9	51.6	65.1	69.3	69.5	99.7	100.0
Total %		1.0			6.6	15.8	31.6	12.6	3.7	0.3	28.1	0.5
Cum %		1.0			7.5	23.3	54.9	67.5	71.2	71.4	99.5	100.0

KEY STAGE 3 NI SUMMARY BY SCHOOL TYPE BY GENDER 2007/2008
SCIENCE

GRAMMAR

Teacher Assessed	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %	0.0		0.0	0.0	0.0	0.2	4.6	14.0	17.4	6.5		57.3
Cum %	0.0		0.0	0.0	0.0	0.3	4.9	18.8	36.2	42.7		100.0
Female %	0.0		0.0	0.0	0.0	0.2	1.9	15.4	20.8	4.7		57.0
Cum %	0.0		0.0	0.0	0.0	0.2	2.1	17.5	38.3	43.0		100.0
Total %	0.0		0.0	0.0	0.0	0.2	3.3	14.7	19.1	5.6		57.2
Cum %	0.0		0.0	0.0	0.0	0.2	3.5	18.2	37.3	42.8		100.0

Test Level	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %		0.0			0.0	0.2	5.3	14.7	14.1	3.7	61.9	0.0
Cum %		0.0			0.0	0.2	5.6	20.3	34.4	38.1	100.0	100.0
Female %		0.0			0.0	0.2	6.7	14.7	13.9	2.8	61.6	0.0
Cum %		0.0			0.0	0.3	7.0	21.7	35.6	38.4	100.0	100.0
Total %		0.0			0.0	0.2	6.0	14.7	14.0	3.3	61.8	0.0
Cum %		0.0			0.0	0.3	6.3	21.0	35.0	38.2	100.0	100.0

SECONDARY

Teacher Assessed	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %	0.1		0.1	0.3	7.9	24.9	27.3	16.1	3.5	0.4		19.3
Cum %	0.1		0.2	0.5	8.4	33.3	60.6	76.7	80.2	80.7		100.0
Female %	0.1		0.1	0.1	4.6	21.1	31.0	19.5	3.8	0.2		19.5
Cum %	0.1		0.1	0.3	4.8	26.0	57.0	76.4	80.3	80.5		100.0
Total %	0.1		0.1	0.2	6.3	23.0	29.1	17.8	3.7	0.3		19.4
Cum %	0.1		0.2	0.4	6.6	29.7	58.8	76.6	80.3	80.6		100.0

Test Level	W	N	1	2	3	4	5	6	7	8	Abs	Ex
Male %		1.3			6.1	26.3	22.4	13.3	2.1	0.2	27.8	0.5
Cum %		1.3			7.4	33.7	56.1	69.4	71.5	71.7	99.5	100.0
Female %		1.1			5.0	24.2	25.1	12.5	2.3	0.1	29.5	0.2
Cum %		1.1			6.1	30.3	55.4	67.9	70.1	70.3	99.8	100.0
Total %		1.2			5.5	25.3	23.7	12.9	2.2	0.2	28.7	0.4
Cum %		1.2			6.7	32.0	55.8	68.7	70.8	71.0	99.6	100.0

