



The Progress Test Series

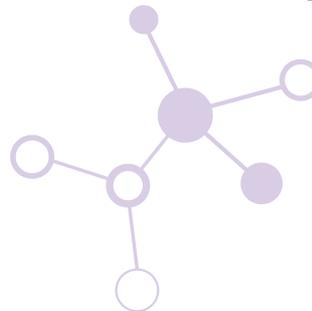
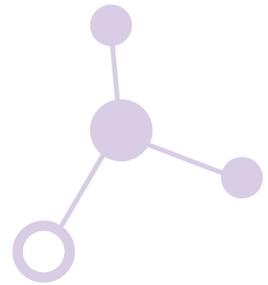
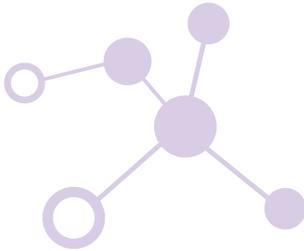
Progress Test in English

Progress Test in Maths

Progress Test in Science



Primary and Secondary Sample Reports



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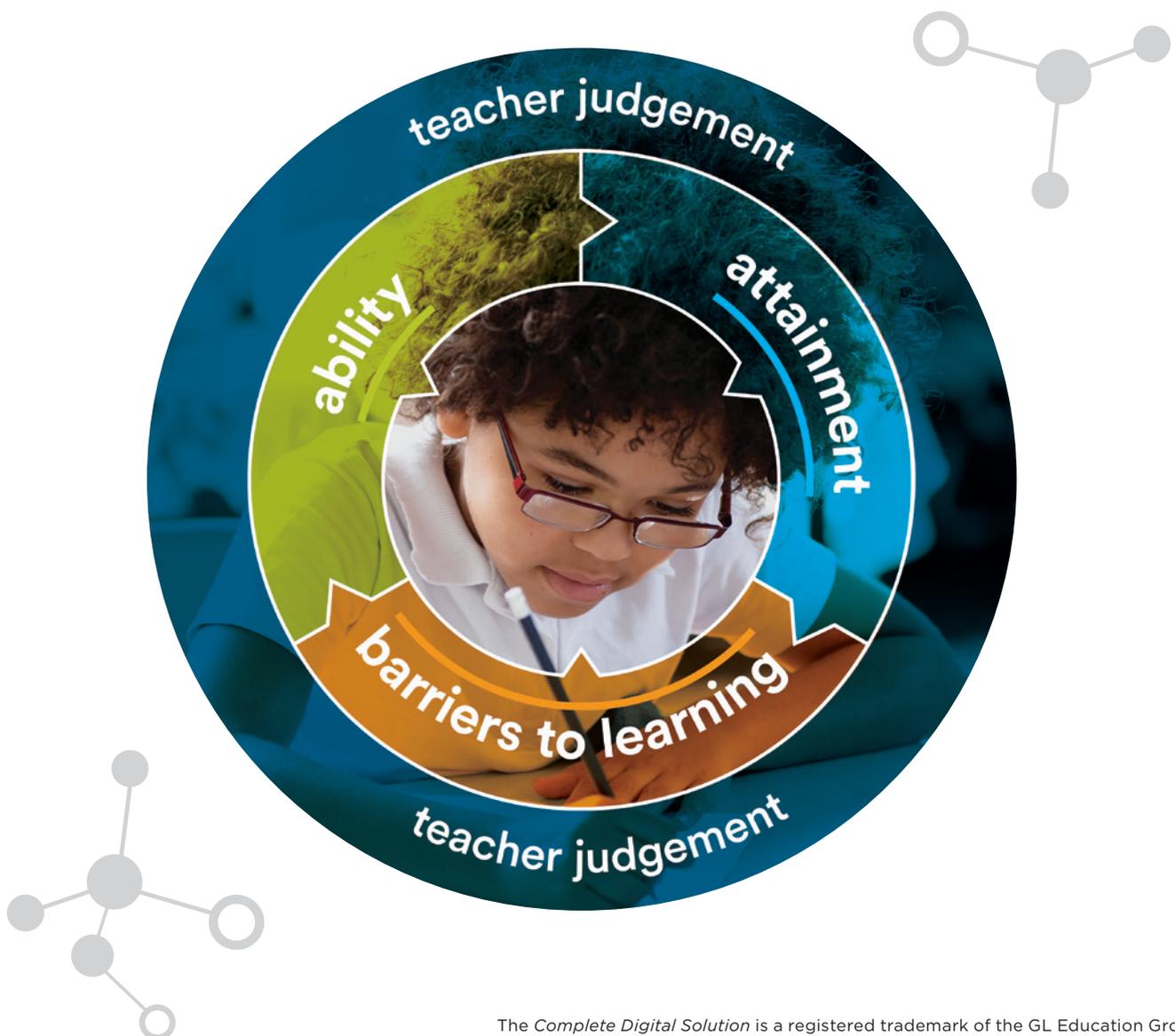
To indicate a learner’s potential performance

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To show where the learner is now and what you can do to support their highest possible achievement

Barriers to learning

To identify barriers that prevent a learner from achieving their greatest possible potential.



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Progress Test Series

GL Assessment's *Progress Test Series*® has been designed for use year-on-year to support teachers in identifying levels of attainment and monitoring progress. The tests for English and maths are for students from age five to 14 and for science from age eight to 14. Each series has been standardised on up to 35,000 students across the UK and so provides reliable and accurate profiles of groups and individuals against national standards. In England, this national benchmarking will be crucial for schools that want to track progress without National Curriculum levels.

A test of pupils' technical English skills and reading comprehension, our *Progress Test in English*® (PTE) has become established as the standardised English assessment of choice in many schools. *Progress Test in Maths*® (PTM) is designed to assess pupils' mathematical skills and concepts. Completing the *Progress Test Series* is *Progress Test in Science*® (PTS) which provides a reliable assessment of pupils' attainment in science. Each test assesses key aspects of science knowledge and skills, appropriate to the age of the pupil.

Using this progress testing series, year-on-year, provides a reliable profile of pupils' attainment in the core English skills, including phonics (for the youngest pupils), spelling, grammar, punctuation and reading comprehension and the core maths areas, including number, shape, data handling and algebra. The *Progress Test in Science* series consist of 7 tests: 6 test covering the age 7 to 14+ (*Progress Test in Science* 8 to 14), plus an additional test for pupils aged between 11 and 12 years, which can be used as a transition test on entry to secondary education (*Progress in Science* 11T).

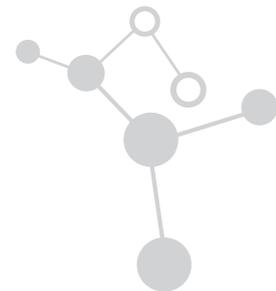
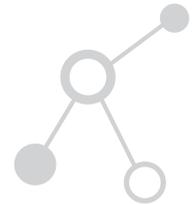
Ideal for monitoring progress over time and tracking individual pupil progress, the *Progress Test Series* can be used to support teachers in identifying those in need of extra help, as well as those that are particularly able.

Close attention has been paid to ensuring the new tests reflect curricula across the UK, including the new National Curriculum, making them up-to-date and highly relevant. Please note that levels of attainment are reported separately for Scotland and Northern Ireland.

What reports are available?

- Group report for teachers (Available in PDF and Excel format)
- Individual student report for teachers
- Individual report for parents
- Cluster report

The following booklet will show example reports from *PTE*, *PTM* and *PTS*.



“ [The Progress Test Series] helps teachers understand where an individual's strengths and weaknesses are. It provides both an individual appraisal and suggestions of how to improve. ”

Mike Hall, Principal, Woodhouse Academy, Staffs

Group report for teachers

School: Sample School	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

What is *Progress Test in English*?

Progress Test in English is a series of tests of English for students from age five to 14.

The tests are differentiated according to age:

- The test for the youngest children (*PTE5*) comprises a short section that tests phonic knowledge and skills with a reading comprehension exercise based on a single passage, a story taken from a picture book.
- In the test for children aged six and seven (*PTE6* and *PTE7*), English skills are tested and comprehension is based on a single passage, again an age-appropriate story.
- *PTE8* to *PTE14* combine a test of English skills (spelling, grammar and punctuation) with a test of reading comprehension based on a narrative and linked non-narrative text.

Why use *Progress Test in English*?

Using *PTE* year-on-year provides a reliable test of children’s attainment in the core English skills: phonics, reading, spelling, grammar, punctuation and comprehension. Each test has similar tasks and so tests similar aspects of English attainment across the age range.

PTE will help the class teacher track the progress of individual students and allow the head teacher to compile an essential database of English attainment which, over time, will become an invaluable record of how particular cohorts have achieved and progressed. If testing with *PTE* is carried out in Reception or at the beginning of KS1, and continues annually, a clear profile of individual student and group attainment will help support the school’s aim of raising standards in English.

The Standard Age Score (SAS) is a reliable measure for ensuring that monitoring is accurate and based on relevant test content, and that students are making good progress.

The ‘KS2 indicator’ is a reliable indicator of future performance in the Statutory Assessment Test (SAT) for English, and can be used for target setting, progress monitoring and measuring value added. The indicators match the SAT scaled scores and range from 80 to 120. The benchmark is 100 and the higher level benchmark is 110. Actual SAT attainment will be affected by external factors, including effort and motivation.

Relationship between scores

Description	Very Low		Below Average		Average			Above Average		Very High			
Stanine (ST)	1		2	3	4	5	6	7	8	9			
Standard Age Score (SAS)	70		80	90	100	110	120	130					
National Percentile Rank (NPR)	1	5	10	20	30	40	50	60	70	80	90	95	99

School: Sample School	No. of students: 25
Group: Class P6-7	
Date of test(s): 01/01/2015 – 02/01/2015	

Scores for the group (by standard age score)

Student name	Age at test (yrs.:mths)	No. attempted (/63)	SAS	SAS (with 90% confidence bands)											Overall ST	NPR	GR (/25)	GCSE indicator	English skills ST	Reading comprehension ST	Progress Category	
				60	70	80	90	100	110	120	130	140										
Rosaline Nash	13:01	63	131													9	98	1	A*/9	9	8	Expected
Teodora Duneac	13:02	63	125													8	95	2	A/8	9	7	Expected
Connor Gibson	13:01	63	124													8	94	3	A/8	8	8	Expected
Nita Moss	13:01	63	121													8	92	4	A/8	8	7	Expected
Adrian Fowler	13:01	63	119													8	90	5	A/7	8	7	Expected
Declan Blair	14:10	63	118													7	89	6	A/7	8	7	Expected
Robert Robinson	14:09	63	116													7	86	=7	A/7	7	7	Expected
Nancy Robertis	14:11	63	116													7	86	=7	A/7	6	8	Expected
Rob Reagan	13:01	63	115													7	84	9	A/7	6	7	Expected
Tim Vincent	14:11	63	114													7	82	10	B/6	6	7	Expected
Alice Jessica May	13:02	63	111													6	77	11	B/6	7	6	Expected
Martin Gibson	13:02	63	110													6	74	12	B/6	6	6	Expected
Rob Reagan	13:03	63	108													6	70	13	B/6	5	6	Expected
Tim Vincent	14:06	63	107													6	68	14	B/6	6	6	Much higher
Peter Watt	14:11	63	103													5	58	15	B/5	5	5	Lower
Anthony Jameson	13:06	63	101													5	52	=16	C/5	4	6	Lower
Rebecca Mathews	14:04	63	101													5	52	=16	C/5	7	4	Lower
Rita Tucker	13:00	63	101													5	52	=16	C/5	6	4	Lower
Natasha Aransola	13:01	63	99													5	48	19	C/4	4	6	Lower
Naithan Gill	13:01	63	92													4	30	20	C/4	4	4	Much lower
David Smith	13:02	63	91													4	28	21	D/3	4	4	Lower
Tom Albright	14:09	63	83													3	13	22	D/3	2	3	Much lower
Peter Adetunde	13:02	63	82													3	12	23	D/3	1	4	Much lower
Declan Kearney	13:06	63	73													1	4	24	F/2	2	1	Much lower
Ryan Galvin	13:07	63	69													1	2	25	G/1	1	2	Much lower

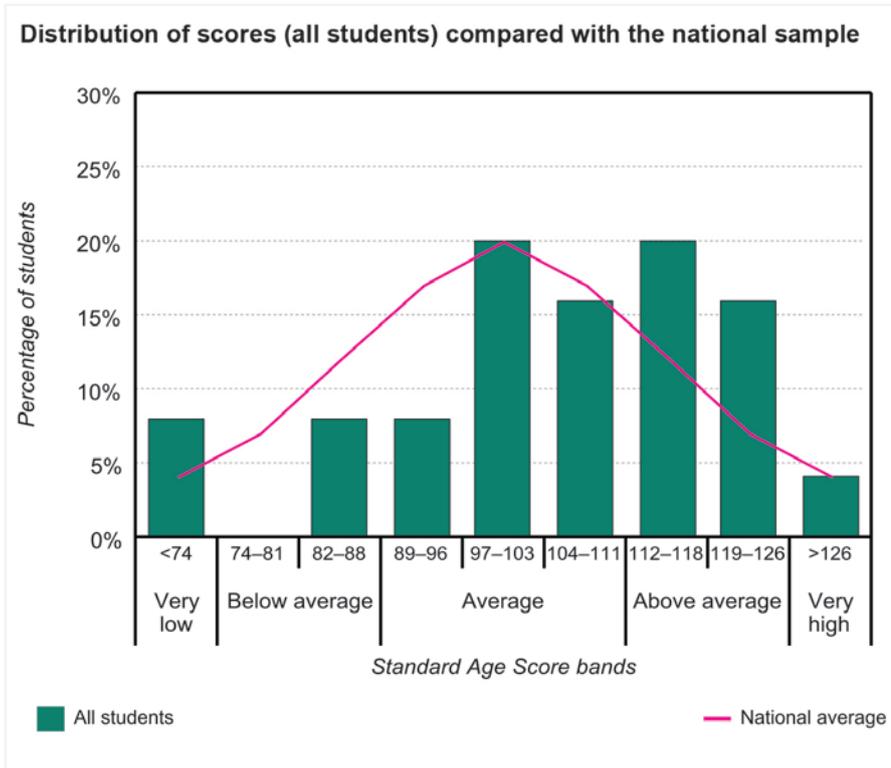
Progress Test in English

School: Sample School	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

Analysis of group scores (all students)

The table and bar chart below show the distribution of scores for the group against the national average.

Description	Very low	Below average		Average			Above average		Very high
		SAS bands	74–81	82–88	89–96	97–103	104–111	112–118	
National average	4%	7%	12%	17%	20%	17%	12%	7%	4%
All students	8%	0%	8%	8%	20%	16%	20%	16%	4%



The mean standard age score for this group is not significantly different from the national average.

The spread of standard age scores for this group is not significantly different from the national average.

The table below shows the mean scores with confidence bands for the group against the national average.

	No. of students	Mean SAS	SAS (with 90% confidence bands)											
			60	70	80	90	100	110	120	130	140			
National average	-	100.0						●						
All students	25	105.2							●	—				

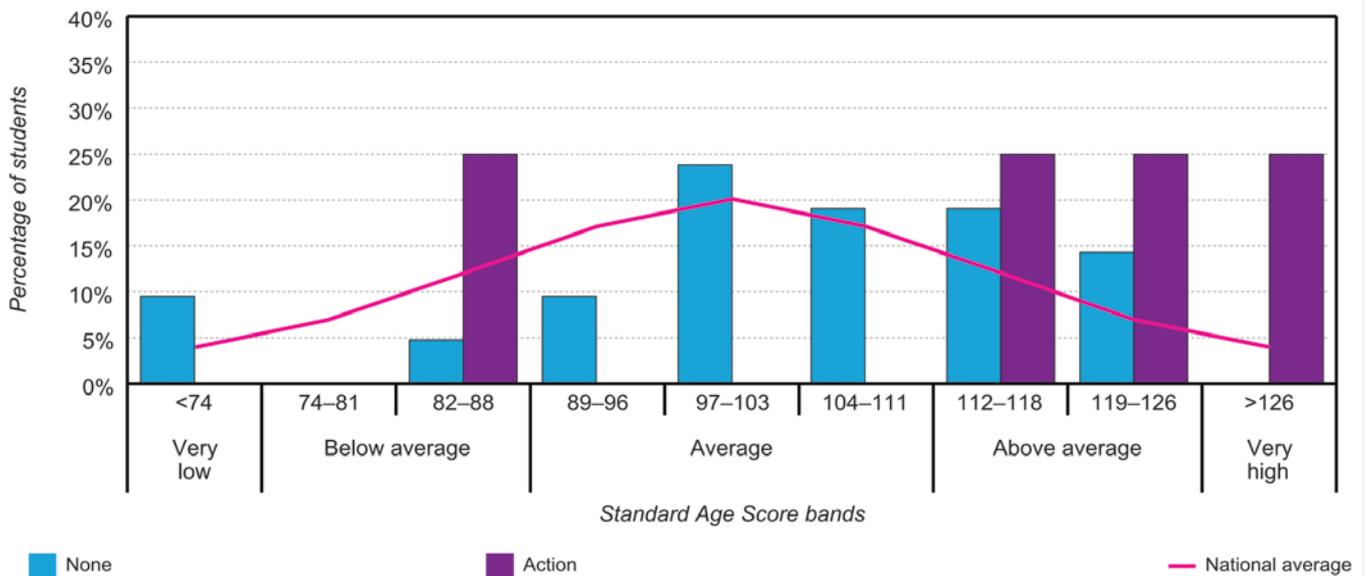
School: Sample School	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

Analysis of group scores (by special educational need)

The table and bar chart below show the distribution of scores for the group against the national average.

Description	Very low	Below average		Average			Above average		Very high
		SAS bands	<74	74–81	82–88	89–96	97–103	104–111	
National average	4%	7%	12%	17%	20%	17%	12%	7%	4%
All students	8%	0%	8%	8%	20%	16%	20%	16%	4%
None	10%	0%	5%	10%	24%	19%	19%	14%	0%
Action	0%	0%	25%	0%	0%	0%	25%	25%	25%

Distribution of scores (by special educational need) compared with the national sample



The table below shows the mean scores with confidence bands for the group against the national average.

	No. of students	Mean SAS	SAS (with 90% confidence bands)											
			60	70	80	90	100	110	120	130	140			
National average	-	100.0						•						
All students	25	105.2								•	—			
None	21	103.6								•	—			
Action	4	113.8									•	—		

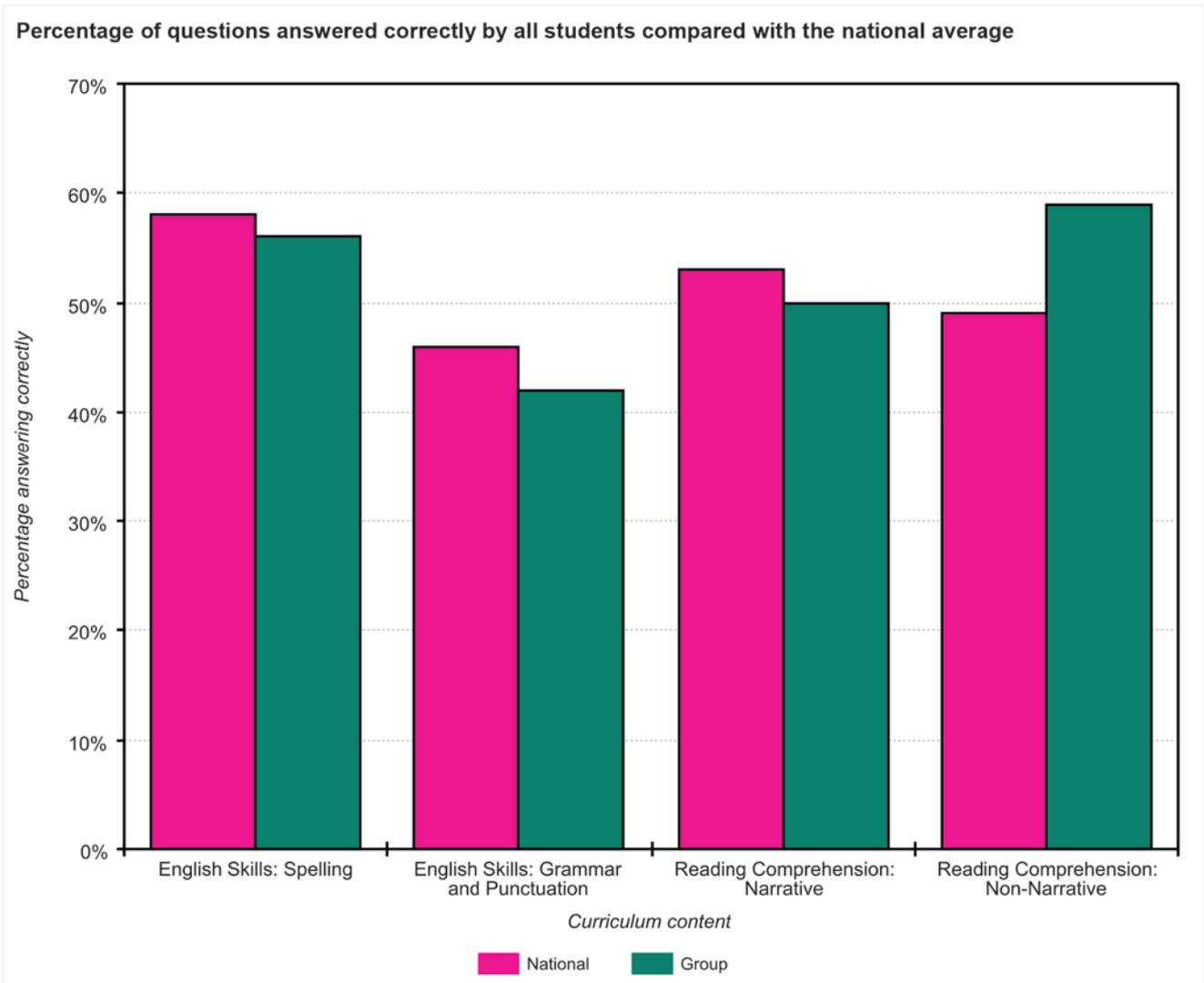
Progress Test in English

School: Sample School	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

Analysis of group scores (by Curriculum content category)

The table and chart below show the percentage of questions answered correctly by all students compared with those for the national average.

Curriculum content category	Number of questions	Group % correct	National % correct	Difference
English Skills: Spelling	13	56%	58%	-2%
English Skills: Grammar and Punctuation	6	42%	46%	-4%
Reading Comprehension: Narrative	15	50%	53%	-3%
Reading Comprehension: Non-Narrative	10	59%	49%	10%



School: Sample School	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

The table below shows each question and the percentage correct for the group compared with the national average (by national % correct).

Question number	Question category	Question content	Group % correct	National % correct	Group / national difference
RC3	Reading Comprehension: Narrative	Why does Harry dislike humans?	20	92	-72
ES10	English Skills: Spelling	because	32	88	-56
ES5	English Skills: Spelling	change	72	84	-12
RC1	Reading Comprehension: Narrative	Why is TYPICAL written in capital letters?	52	82	-30
ES13	English Skills: Spelling	enjoy	80	80	0
RC21	Reading Comprehension: Non-Narrative	Fill in the boxes to label the correct parts of the page.	68	78	-10
RC7	Reading Comprehension: Narrative	Why did Harry want to get to the new cake shop quickly?	60	76	-16
ES1	English Skills: Spelling	before	44	75	-31
ES4	English Skills: Spelling	movement	36	73	-37
ES11	English Skills: Spelling	smiling	56	72	-16
RC15	Reading Comprehension: Narrative	Tick to show if these statements are true or false.	36	68	-32
RC17	Reading Comprehension: Non-Narrative	Copy two events Duff makes cakes for.	60	66	-6
RC13	Reading Comprehension: Narrative	Why was Harry cautious?	52	65	-13
ES2	English Skills: Spelling	through	48	63	-15
ES12	English Skills: Spelling	friendship	28	61	-33
ES14	English Skills: Grammar and Punctuation	Complete the sentence with the correct form of adverb (peacefully, elegantly, gently, lazily, politely)	44	58	-14
ES17	English Skills: Grammar and Punctuation	Circle where the missing commas should go.	44	58	-14
RC11	Reading Comprehension: Narrative	What was impressive about the straw hat cakes in Gloria's shop?	60	58	2
RC18	Reading Comprehension: Non-Narrative	What is funny about 'sweet-smelling' trainers?	12	58	-46
RC8	Reading Comprehension: Narrative	Why did the smell of cake get stronger?	52	56	-4
RC25	Reading Comprehension: Non-Narrative	What do you think was the main reason he set up his own company?	68	53	15
RC14	Reading Comprehension: Narrative	Number the sentences 1 to 5 to show the order in which they happen.	72	50	22
RC9	Reading Comprehension: Narrative	Which sentence from the story shows that Harry liked the cakes?	84	48	36

School: Sample School	No. of students: 25
Group: Class P6-7	
Date of test(s): 01/01/2015 – 02/01/2015	

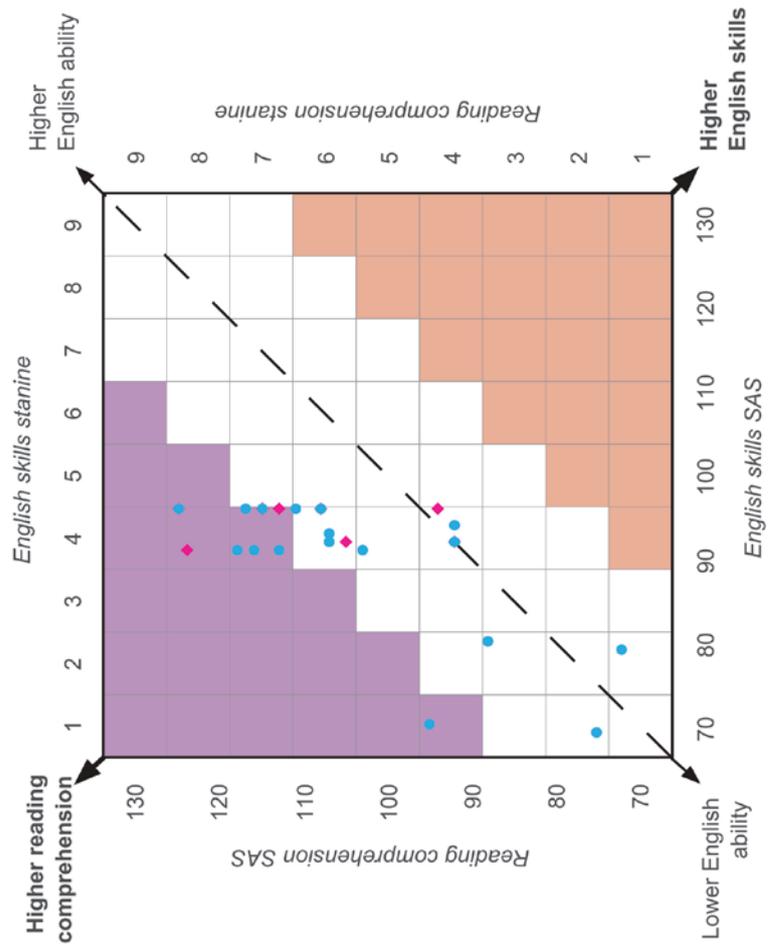
Student profiles

By comparing performance on the two discrete parts of PTE - English Skills and Reading Comprehension - it is possible to compare a student's skills in the technical aspects of English (spelling, grammar and punctuation) with a range of reading comprehension skills.

The comparison is useful but by no means definitive, as other aspects of a student's literacy development will need to be considered, not least writing and oracy, so three simple profiles have been devised.

The diagram shows the distribution of students across the three profiles which are indicated by the coloured bands.

- Reading Comprehension significantly better than English Skills
- Balanced profile – no significant difference in performance
- English Skills significantly better than Reading Comprehension
- Males
- Females



General characteristics of each student profile

The analysis of *Progress Test in English* scores allows all students to be assigned one of three broad profiles, indicating their likely preferences, strengths and any areas for development. The profiles are expressed as a bias for English Skills, a bias for Reading Comprehension or a Balanced profile. The two biased profiles indicate a difference of three or more stanines between a student's English Skills score and their Reading Comprehension score. The Balanced profile indicates a more even profile (i.e. where the two scores are similar and no significant bias is discernible).

	National	Group	
	%	%	No. of students
Reading Comprehension significantly better than English Skills	5%	44%	11
Balanced profile – no significant difference in performance	90%	56%	14
English Skills significantly better than Reading Comprehension	5%	0%	0

Reading comprehension significantly better than English skills

- These students will have a preference for Reading Comprehension and demonstrate relatively weaker English Skills. Reading Comprehension scores may vary within this group of students from average to very high but, in each case, the Reading Comprehension score will be significantly higher than the English Skills score.
- These students may demonstrate above average skills in reading, tackling a wide range of texts confidently, using knowledge about context, purpose and audience. They can discuss and compare features of texts, including language, vocabulary, grammar and organisation, and are beginning to draw on knowledge of critical writings about texts. However, they may need to further develop their skills in making close textual comparisons, and in evaluating texts as a whole.
- Improvements to these students' English Skills could be the focus of specific teaching sessions, for example: using colons and semi-colons appropriately for complex listing; listing vocabulary and grammatical conventions found in a specific text type as preparation for their own writing in that genre; identifying examples of Standard English and other varieties of English in audio clips taken from television or radio.

Students:

Peter Adetunde
Adian Fowler
Rosaline Nash
Robert Robinson

Declan Blair
Connor Gibson
Rob Reagan
Tim Vincent

Teodora Dunec
Nita Moss
Nancy Roberts

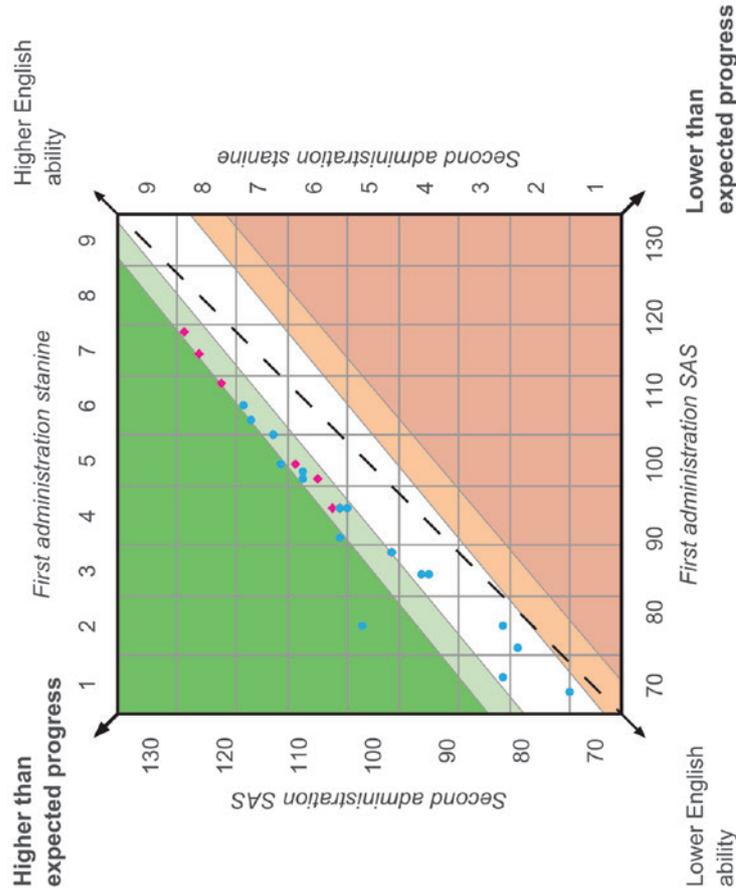
School: Sample School	No. of students: 25
Group: Class P6-7	Level: 8
Date(s) of first test: 01/07/2014	Level: 9
Date(s) of second test: 01/01/2015 – 02/01/2015	

Progress profiles

The SAS for the first and second administrations of the test are shown in the diagram. Students who are considered to be making expected progress are in the white band. Students making lower and much lower than expected progress are in the light and the dark orange band and those making higher and much higher than expected progress are in the light and the dark green band respectively.

Note that only those students who have completed two valid administrations of *PTE* are able to have performance compared and therefore progress reported in this section.

- Much higher than expected progress
- Higher than expected progress
- Expected progress
- Lower than expected progress
- Much lower than expected progress
- Males
- Females



Progress scores for the group (by standard age score)

The table below shows the SAS for the first and second administrations of the test and the resulting SAS difference and progress category. Note that only those students who have completed two valid administrations of PTE are able to have performance compared and therefore progress reported in this section.

Student name	First administration SAS	Second administration SAS	SAS difference	Progress category
Rosaline Nash	118	125	7	Higher than expected
Teodora Dunec	115	123	8	Higher than expected
Nita Moss	111	120	9	Higher than expected
Connor Gibson	108	117	9	Higher than expected
Adian Fowler	106	116	10	Higher than expected
Declan Blair	104	113	9	Higher than expected
Rob Reagan	100	112	12	Much higher than expected
Alice Jessica May	100	110	10	Higher than expected
Robert Robinson	99	109	10	Higher than expected
Martin Gibson	98	109	11	Higher than expected
Rita Tucker	98	107	9	Higher than expected
Rebecca Mathews	94	105	11	Higher than expected
Nancy Roberts	94	104	10	Higher than expected
Peter Watt	90	104	14	Much higher than expected
Tim Vincent	94	104	10	Higher than expected
Rob Reagan	94	103	9	Higher than expected
Tim Vincent	78	101	23	Much higher than expected
Natasha Aransola	88	97	9	Expected
Anthony Jameson	88	97	9	Expected
David Smith	85	93	8	Expected
Nathan Gill	85	92	7	Expected
Tom Albright	78	82	4	Expected
Peter Adetunde	71	82	11	Expected
Declan Kearney	75	80	5	Expected
Ryan Galvin	69	73	4	Expected

Name: Rosaline Nash	
School: Sample School	
Group: Class P6-7	Sex: Female
Date of first test: 01/07/2014	Age: 7:07
Date of second test: 01/01/2015	Age: 8:01

Scores

No. attempted (/44)	SAS	SAS (with 90% confidence bands)					Overall ST	NPR	GR (/25)	End of KS2 indicator		English skills ST	Reading comprehension ST	Progress Category
		60	70	80	90	100				110	120			
44	125						8	95	1	114	115	8	8	Higher

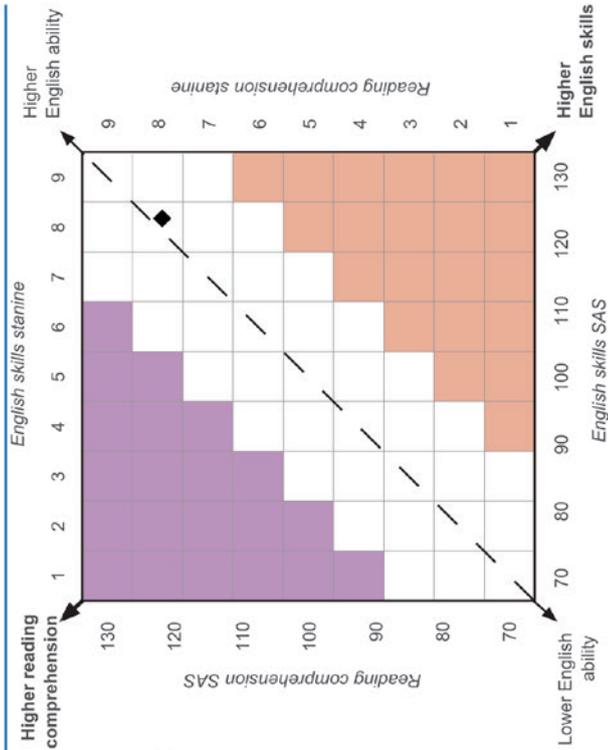
Profile summary

By comparing performance on the two discrete parts of PTE – English Skills and Reading Comprehension – it is possible to compare a student’s skills in the technical aspects of English (spelling, grammar and punctuation) with a range of reading comprehension skills.

This comparison is useful but by no means definitive, as other aspects of a student’s literacy development will need to be considered, not least writing and oracy, so three simple profiles have been devised.

The black diamond shows Rosaline’s profile, which is indicated by the coloured band.

- Reading comprehension significantly better than English skills
- Balanced profile – no significant difference in performance
- English skills significantly better than reading comprehension
- Rosaline Nash



Name: Rosaline Nash		
School: Sample School		
Group: Class P6-7		Sex: Female
Date of first test: 01/07/2014	Level: 8	Age: 7:07
Date of second test: 01/01/2015	Level: 9	Age: 8:01

Analysis of Curriculum content categories

Curriculum content category	Number of questions	Student % correct	National % correct	Student / national difference
English Skills: Spelling	13	100%	58%	42%
English Skills: Grammar and Punctuation	6	56%	46%	10%
Reading Comprehension: Narrative	15	71%	53%	18%
Reading Comprehension: Non-Narrative	10	90%	49%	41%

Analysis of Reading comprehension categories

Reading comprehension category	Number of questions	Student % correct	National % correct	Student / national difference
Authorial Technique	7	86%	55%	31%
Retrieval	5	67%	38%	29%
Simple Inference	10	80%	55%	25%
Complex Inference	3	75%	57%	18%

Implications for teaching and learning

- By comparing scores from a previous administration of *PTE* it is possible to categorise progress as much lower than expected, lower than expected, expected, higher than expected, or much higher than expected.
 - Rosaline took *PTE8* in July 2014 and from then until now has made higher than expected progress in English.
- Rosaline's scores for both Reading Comprehension and English Skills are in the above average range.
- The *Analysis of Responses by Process Categories and Reading Comprehension Categories* will help to identify where there are specific strengths and weaknesses and to plan next steps.
- Where scores are fairly evenly balanced across the Reading Comprehension categories, this suggests that Rosaline will generally demonstrate above average inferential skills drawing on more than one part of a text in order to make more complex inferences about plots, characters or themes. Rosaline should be encouraged to develop the breadth and depth of her reading, Rosaline should discuss the evidence that could support a prediction/hypothesis about characters, relationships and motivation and give examples from the text.
- Where scores across the Reading Comprehension categories are uneven, specific areas of weakness might be addressed as follows:
 - encouraging Rosaline to discuss the evidence in a text that could support a prediction/hypothesis about characters, relationships and motivation
 - formulating questions/quizzes that require close reading of a text to locate pieces of information and retrieve them accurately.

Name: Rosaline Nash	
School: Sample School	
Group: Class P6-7	Sex: Female
Date of first test: 01/07/2014	Level: 8
Date of second test: 01/01/2015	Level: 9
	Age: 7:07
	Age: 8:01

Analysis by question

The table below shows each question in the test and whether an the pupil's response (correct/incorrect) compared with the group and national average.

Question number	Question category	Question content	Score (/x)	Group % correct	National % correct
ES1	English Skills: Spelling	before	1 / 1	44	75
ES2	English Skills: Spelling	through	1 / 1	48	63
ES3	English Skills: Spelling	excellent	1 / 1	56	15
ES4	English Skills: Spelling	movement	1 / 1	36	73
ES5	English Skills: Spelling	change	1 / 1	72	84
ES6	English Skills: Spelling	discovered	1 / 1	64	34
ES7	English Skills: Spelling	intelligent	1 / 1	76	17
ES8	English Skills: Spelling	special	1 / 1	76	46
ES9	English Skills: Spelling	whistle	1 / 1	60	46
ES10	English Skills: Spelling	because	1 / 1	32	88
ES11	English Skills: Spelling	smiling	1 / 1	56	72
ES12	English Skills: Spelling	friendship	1 / 1	28	61
ES13	English Skills: Spelling	enjoy	1 / 1	80	80
ES14	English Skills: Grammar and Punctuation	Complete the sentence with the correct form of adverb (peacefully, elegantly, gently, lazily, politely)	0 / 2	44	58
ES15	English Skills: Grammar and Punctuation	Complete the sentence with the correct form of verb (blown, ate, woke, write, forgotten)	1 / 2	34	47
ES16	English Skills: Grammar and Punctuation	Tick to show whether each underlined word describes one person or more than one person (children's, boy's, doctors', baby's, builder's)	1 / 2	40	39
ES17	English Skills: Grammar and Punctuation	Circle where the missing commas should go.	1 / 1	44	58
ES18	English Skills: Grammar and Punctuation	Fill in the table to compare each adjective.	1 / 1	52	32
ES19	English Skills: Grammar and Punctuation	Complete the sentence with the best connective word.	1 / 1	48	39

Individual report for parents

Name: Rosaline Nash		
School: Sample School		
Group: Class P6-7		Sex: Female
Date of first test: 01/07/2014	Level: 13	Age: 12:07
Date of second test: 01/01/2015	Level: 14	Age: 13:01

What is Progress Test in English?

The new National Curriculum was introduced in September 2014. The study of English is at the heart of the curriculum (alongside maths and science). PTE provides a series of age-appropriate tests for teachers to use year on year to ensure that students are making and maintaining good progress in some of the more technical aspects of English (like punctuation) and in their understanding of what they read (comprehension).

The test is in two parts – English Skills and Reading Comprehension.

English Skills cover spelling, punctuation and grammar. Reading Comprehension is based on an age-appropriate fiction text and a linked information text.

Scores

No. attempted (/63)	SAS	SAS (with 90% confidence bands)											Overall ST	NPR	GCSE indicator	English skills ST	Reading comprehension ST	Progress Category
		60	70	80	90	100	110	120	130	140								
63	131												9	98	A* / 9	4	8	Expected

Analysis of Curriculum content categories

Curriculum content category	Number of questions	Student % correct	National % correct	Student / national difference
English Skills: Spelling	18	94%	46%	48%
English Skills: Grammar and Punctuation	18	83%	59%	24%
Reading Comprehension: Narrative	15	79%	50%	29%
Reading Comprehension: Non-Narrative	12	75%	40%	35%

Analysis of Reading comprehension categories

Reading comprehension category	Number of questions	Student % correct	National % correct	Student / national difference
Authorial Technique	7	62%	42%	20%
Retrieval	3	100%	77%	23%
Simple Inference	12	85%	40%	45%
Complex Inference	5	80%	44%	36%

Description of scores

- Rosaline's profile of scores from *Progress Test in English* shows that she has a preference for Reading Comprehension and relatively weaker English Skills (spelling, punctuation and grammar).
- Rosaline generally demonstrates excellent understanding across a range of texts. She makes inferences supported by evidence and draws on knowledge of context, purpose and audience in her reading. She can make some comparisons across texts, focusing on language, vocabulary choice, grammar, text structure and organisation. However, she may find it more difficult to discuss specific features of poetry or drama; activities such as researching a range of poetic conventions (drawing on form and language) to create a glossary of terms for her peers could be helpful.
- To develop Rosaline's English Skills, she could discuss with a peer passages of text that are inaccurately punctuated (with a focus on more complex within-sentence punctuation), and agree appropriate changes. In addition, she could create texts in which there is a mismatch between purpose, audience and register (for example, writing a dialogue between two friends in a highly formal style, using Standard English throughout).

Description of progress

By comparing scores from a previous administration of *PTE* it is possible to categorise progress as:

- Much lower than expected;
- Lower than expected;
- Expected;
- Higher than expected; or
- Much higher than expected.

Rosaline took *PTE13* in July 2014 and from then until now has made expected progress in English.

Group report for teachers

School: Test School	
Group: Class CE	No. of students: 21
Date of test(s): 14/10/2016	

What is *Progress Test in Maths*?

Progress Test in Maths (PTM) is a series of age-appropriate tests for teachers to use every year to ensure that students are making and maintaining good progress in mathematics. Each test assesses aspects of mathematical skill and knowledge, together with the key process skills of fluency, mathematical reasoning and problem-solving.

The *PTM* series consists of eleven tests: 10 tests covering the age range 5 to 14+ years (*Progress Test in Maths 5 to 14*), plus an additional test for pupils aged between 11 and 12 years, which can be used as a transition test on entry to secondary education (*Progress Test in Maths 11T*).

- For the youngest children (*PTM5, PTM6, PTM7 and PTM8*) the teacher reads the questions and the answer options aloud so that the need to read is minimal.
- *PTM8 to PTM14* tests are in two parts: Mental Maths, and Applying and Understanding Maths. Mental Maths questions are timed and played from an audio file (or read by the teacher). Applying and Understanding Maths questions are answered at the student's own pace.

Why use *Progress Test in Maths*?

Progress Test in Maths (PTM) can be used for both formative and summative purposes to identify strengths and weaknesses in students' maths skills and knowledge, and to plan teaching and learning strategies, targeted support, and extension work for groups and individuals. Using *PTM* year-on-year provides accurate and reliable information on students' attainment and progress in key maths competencies.

In addition to helping the teacher track the progress of individual students, *PTM* allows the school to compile an essential database of maths attainment. If *Progress Test in Maths* is used from start of school on an annual basis, the resulting profile of student and group attainment can help support the school's aim of raising standards in maths.

The Standard Age Score (SAS) is a reliable measure for ensuring that monitoring is accurate and based on relevant test content, and that students are making good progress.

There exists a significant and positive correlation (a link supported by statistical data) between a student's scores on attainment tests, such as *PTM*, and their performance in national tests and examinations. The 'GCSE indicators' in *Progress Test in Maths* provide a reliable indicator of future performance in GCSE mathematics, and can be used for target setting, progress tracking and measuring value added.

The 'GCSE indicators' in the reports are derived from the statistical relationship between *PTM* scores and GCSE results, and are based on an analysis of scores from a large sample of schools and students. The indicators are updated regularly to reflect changes in national GCSE attainment.

A student's actual attainment in GCSE will be affected by external factors, including effort and motivation, but because the test is established as a good predictor of subsequent attainment, *PTM* results indicate what can be achieved.

The old indicator of concurrent attainment for the end of Key Stage 3 based on National Curriculum levels has been removed.

Relationship between scores

Description	Very Low		Below Average			Average				Above Average		Very High	
Stanine (ST)	1	2	3	4	5	6	7	8	9				
Standard Age Score (SAS)	70	80	90	100	110	120	130						
National Percentile Rank (NPR)	1	5	10	20	30	40	50	60	70	80	90	95	99

Progress Test in Maths

School: Sample School	No. of students: 25
Group: Class P6-7	
Date of test(s): 01/01/2014 – 02/01/2015	

Scores for the group (by standard age score)

Student name	Age at test (yrs:mths)	No. attempted (/54)	SAS	SAS (with 90% confidence bands)					Overall ST	NPR	GR (/25)	End of KS2 indicator	Progress Category				
				60	70	80	90	100	110	120	130	140					
David Smith	8:02	54	131										9	98	1	117	Much higher
Nathan Gill	8:01	54	118										7	89	2	111	Much higher
Adrian Fowler	8:01	54	117										7	87	3	111	Much higher
Connor Gibson	8:01	54	114										7	82	=4	109	Much higher
Alice Jessica May	8:02	54	114										7	82	=4	109	Higher
Martin Gibson	8:02	54	113										7	80	6	109	Much higher
Anthony Jameson	8:06	54	108										6	70	7	107	Much higher
Rosaline Nash	8:01	54	106										6	66	8	106	Expected
Teodora Dunece	8:02	54	105										6	63	9	105	Expected
Robert Robinson	9:09	54	104										6	60	10	105	Expected
Peter Adelunde	8:02	54	102										5	55	11	103	Much higher
Rob Reagan	8:01	54	101										5	52	12	103	Expected
Ryan Galvin	8:07	54	98										5	45	=13	101	Much higher
Rita Tucker	8:00	54	98										5	45	=13	101	Expected
Nita Moss	8:01	54	98										5	45	=13	101	Expected
Tom Albright	9:09	54	96										4	40	16	100	Much higher
Nancy Roberts	9:11	54	95										4	37	17	100	Higher
Declan Blair	9:10	54	94										4	34	18	99	Expected
Declan Kearney	8:06	54	92										4	30	19	98	Higher
Rob Reagan	7:03	54	88										3	22	=20	95	Expected
Tim Vincent	9:06	54	88										3	22	=20	95	Expected
Natasha Aransola	8:01	54	87										3	20	22	95	Much lower
Peter Watt	9:11	54	85										3	16	23	94	Lower
Rebecca Mathews	9:04	54	82										3	12	24	92	Much lower
Tim Vincent	9:11	54	79										2	8	25	91	Much lower

School: Test School	
Group: Class CE	No. of students: 21
Date of test(s): 14/10/2016	

Analysis of group scores (by ethnicity)

The table below shows the distribution of scores for the group against the national average.

Description	Very low	Below average		Average			Above average		Very high
		<74	74–81	82–88	89–96	97–103	104–111	112–118	
National average	4%	7%	12%	17%	20%	17%	12%	7%	4%
All students	5%	5%	29%	19%	24%	5%	10%	5%	0%
White	0%	13%	25%	13%	13%	13%	25%	0%	0%
White - British	0%	0%	38%	25%	25%	0%	0%	13%	0%
Asian or Asian British - Pakistani	50%	0%	0%	0%	50%	0%	0%	0%	0%
Mixed	0%	0%	100%	0%	0%	0%	0%	0%	0%
Mixed - White and Black African	0%	0%	0%	100%	0%	0%	0%	0%	0%
White - any other White background	0%	0%	0%	0%	100%	0%	0%	0%	0%

The table below shows the mean scores with confidence bands for the group against the national average.

	No. of students	Mean SAS	SAS (with 90% confidence bands)											
			60	70	80	90	100	110	120	130	140			
National average	-	100.0												
All students	21	94.6												
White	8	97.6												
White - British	8	95.5												
Asian or Asian British - Pakistani	2	83.5												
Mixed	1	84.0												
Mixed - White and Black African	1	90.0												
White - any other White background	1	100.0												

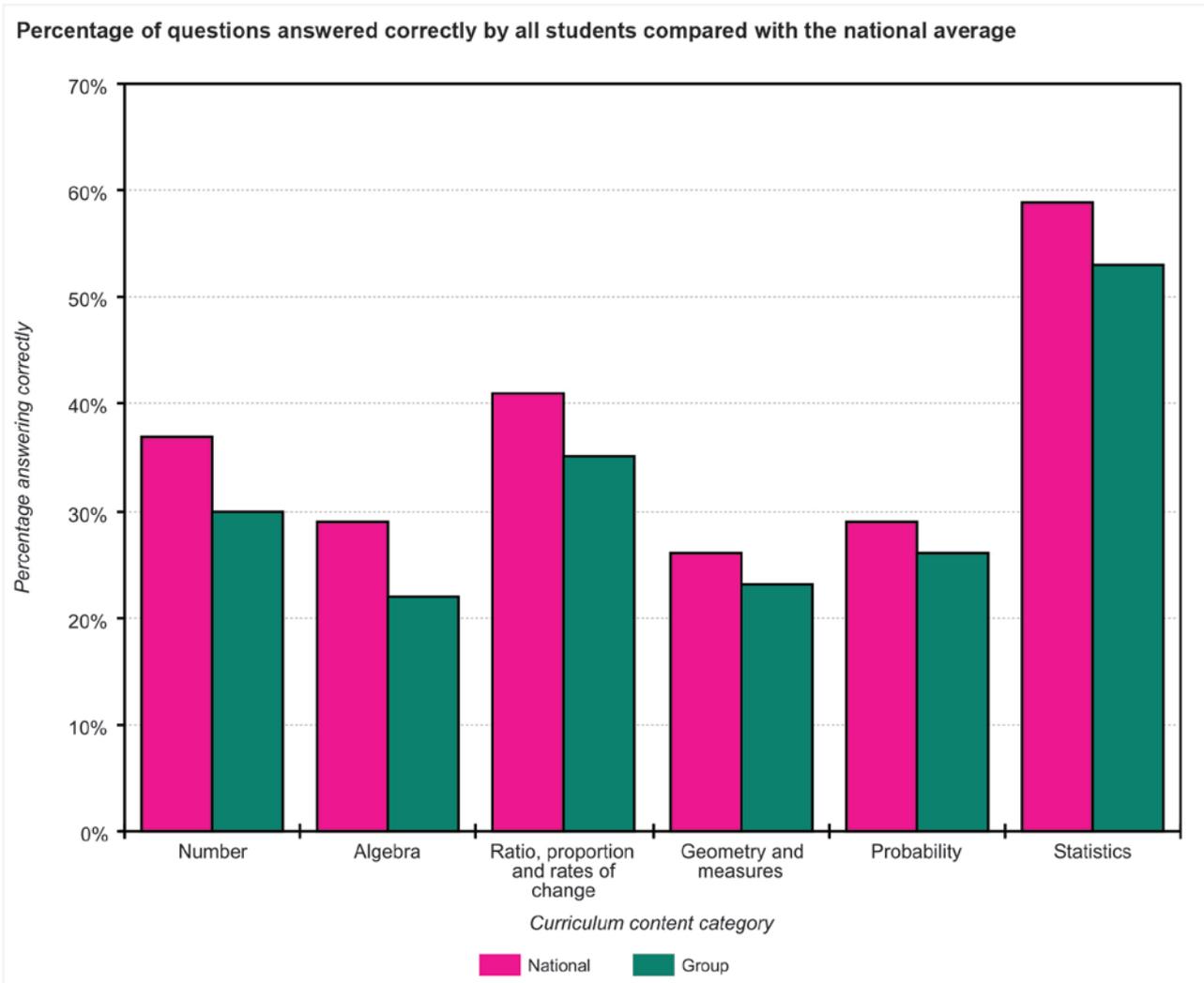
Progress Test in Maths

School: Test School	
Group: Class CE	No. of students: 21
Date of test(s): 14/10/2016	

Analysis of group scores (by Curriculum content category)

The table and chart below show the percentage of questions answered correctly by all students compared with those for the national average.

Curriculum content category	Number of questions	Group % correct	National % correct	Difference
Number	15	30%	37%	-7%
Algebra	15	22%	29%	-7%
Ratio, proportion and rates of change	7	35%	41%	-6%
Geometry and measures	21	23%	26%	-3%
Probability	4	26%	29%	-3%
Statistics	3	53%	59%	-6%

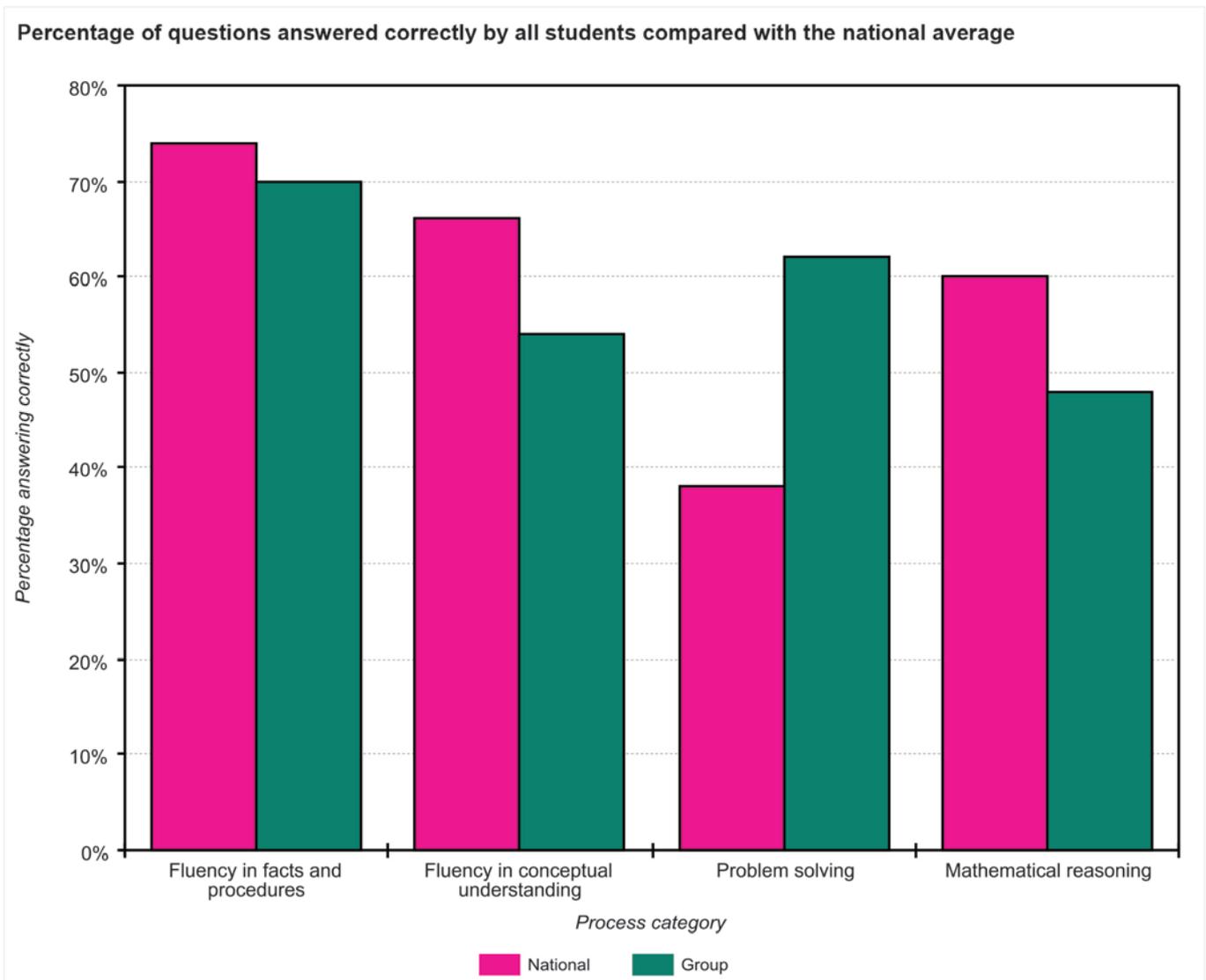


School: Sample School	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2014 – 02/01/2015	

Analysis of group scores (by Process category)

The table and chart below show the percentage of questions answered correctly by all students compared with those for the national average.

Process category	Number of questions	Group % correct	National % correct	Difference
Fluency in facts and procedures	13	70%	74%	-4%
Fluency in conceptual understanding	23	54%	66%	-12%
Problem solving	6	62%	38%	24%
Mathematical reasoning	12	48%	60%	-12%

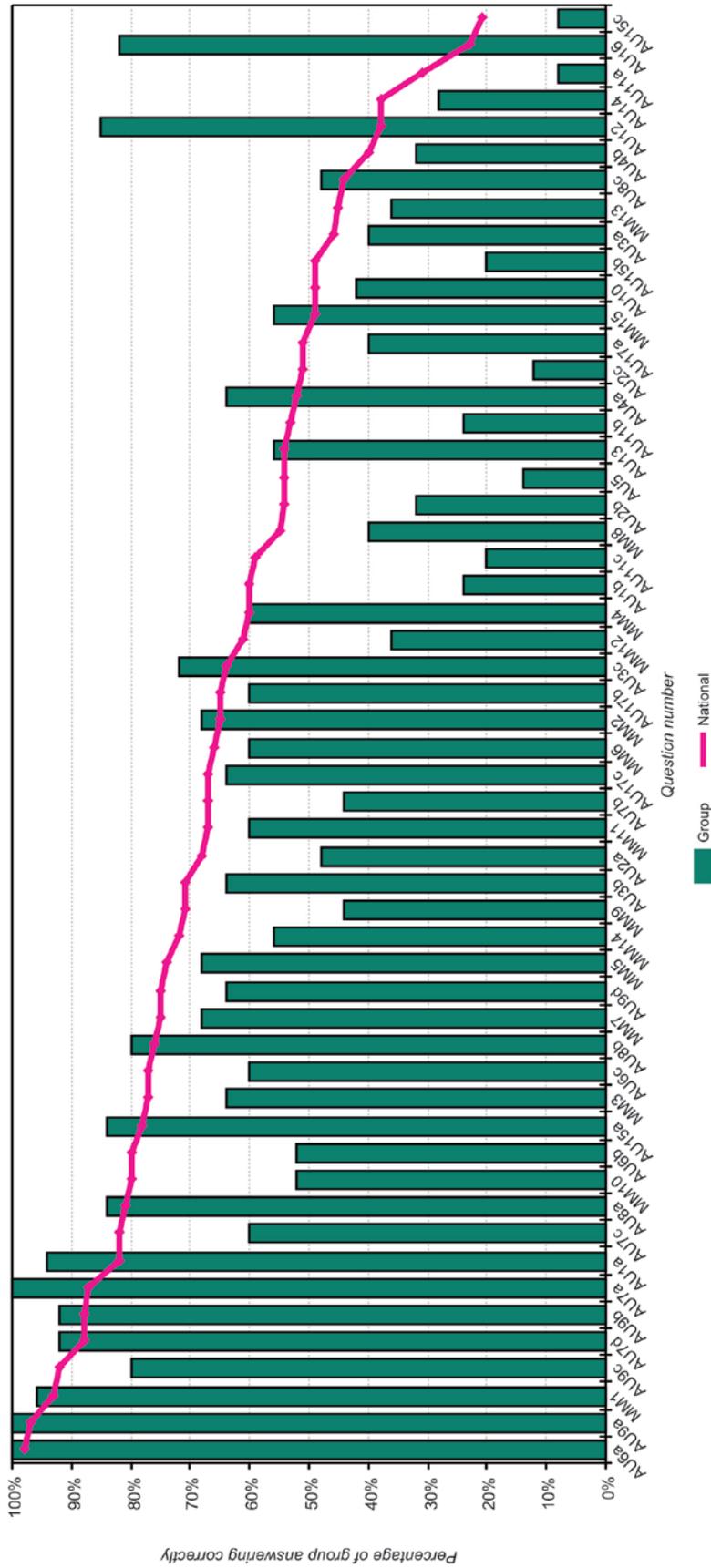


School: Sample School	No. of students: 25
Group: Class P6-7	
Date of test(s): 01/01/2014 – 02/01/2015	

Analysis of group scores (by question)

The chart below shows each question and the percentage correct for the group compared with the national average.

Percentage of questions answered correctly by all students compared with the national average (by national % correct)



Student profiles

To understand how different students have performed on *PTM*, it may be helpful to group together those with different scores. Although it is important to focus on overall performance, it is possible to differentiate students whose performance is 'Low' (Stanines 1, 2 and 3), 'Medium' (Stanines 4, 5 and 6) and 'High' (Stanines 7, 8 and 9).

Whilst it may be helpful to consider which students fall into which category, this information must be treated with caution as this is based on a single snapshot in time. It should be remembered that children may perform differently on another occasion when being observed by a teacher, and that progression across the different mathematical disciplines will not necessarily be even.

Low performance

- These students are performing below national age related expectations as a group, and their scores vary from very low to below average. It is recommended that individual diagnostic assessments are administered as soon as possible to investigate more precisely where additional support is most needed and to decide on appropriate interventions.
- Students with a low score will need to revisit concrete operational methods in order to establish and consolidate an understanding of number (cardinality and ordinality) before moving on to higher order concepts. Concrete objects and measuring tools should be used in practical activities. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. An ability to estimate and perform 'real life' calculations requires practice and repetition as well as a basic understanding of the decimal system.
- Mental maths skills need to be further developed for these students. This can be achieved by ensuring mental and oral opportunities are planned across the range of mathematics in the curriculum. Students should be challenged to work as often as possible without the aid of a calculator. Starter activities designed to stimulate mental agility will help them to overcome any fear of being without a calculator, as well as developing their mental abilities.
- Students should be encouraged to write down each step in their calculations to explain how they arrive at their answer using the correct mathematical vocabulary. In this way they can develop their language of mathematics, in particular their abilities to reason, explain and justify, which in turn will help them to develop into confident problem solvers. They will also be challenged to see that there are sometimes multiple approaches to arriving at the right answer. This will help development in both the written and mental contexts.
- Students should be encouraged to play mathematical games, perform exercises in imagining to develop an understanding of number or shape and space, build confidence through practical applications to real life situations, and practice routine calculations to consolidate their knowledge of multiplication tables. They also need opportunities to broaden their thinking outside the normal routines. An emphasis on practice will always aid fluency and build confidence.

Students:

Oscar Bruce	Alice Coyle	Marlowe Fisk
Daniel Gray	Maria Monasch	Azzah Rehman
Jonathan Wallace	Brisilda Ymeri	

Medium performance

- These students, as a group, demonstrate a performance that is broadly average and in line with national age-related expectations across the curriculum for mathematics. It is recommended that individual diagnostic assessments are made to investigate more precisely where strengths and weaknesses in different aspects of mathematics lie, and therefore where additional support or greater challenge is most needed.
- Students in this category will generally demonstrate the ability to work through calculations following learned methods, rather than demonstrate an intuitive flare for skipping steps to get to the answer. Their approach is likely to be linear and they will prefer to work out every calculation on paper or with a calculator, rather than relying on their mental abilities.
- Students need to be encouraged to develop the more formal written language of mathematics. Next steps should include opportunities to stretch and develop conceptual understanding, to increase mental agility and to progress the development of formal written mathematics using age appropriate symbols and methodologies. This can be done by emphasising the higher order skills of hypothesising or predicting, interpreting results and applying reasoning.
- Getting students to record their ideas and discuss their thinking out loud helps the teacher to 'see' their thought processes and therefore assess their understanding and identify any misconceptions they may have. It not only helps to consolidate their understanding, but also helps students to develop their language of mathematics. They will be required to reason, explain, and justify, which are critical skills in developing mathematical acuity. They will also be challenged to see that there are sometimes multiple approaches to arriving at the right answer. This will help development in both written and mental contexts.

Students:

Kara Ballard	Niamh Bowles	Ella Fisher
George Griggs	Alex Honkanen	Kunza Mohammad
Adia Mulia	Yotam Mulready	Daniel Pstus

School: Test School	No. of students: 21
Group: Class CE	Level: 13
Date(s) of first test: 14/10/2015	Level: 14
Date(s) of second test: 14/10/2016	

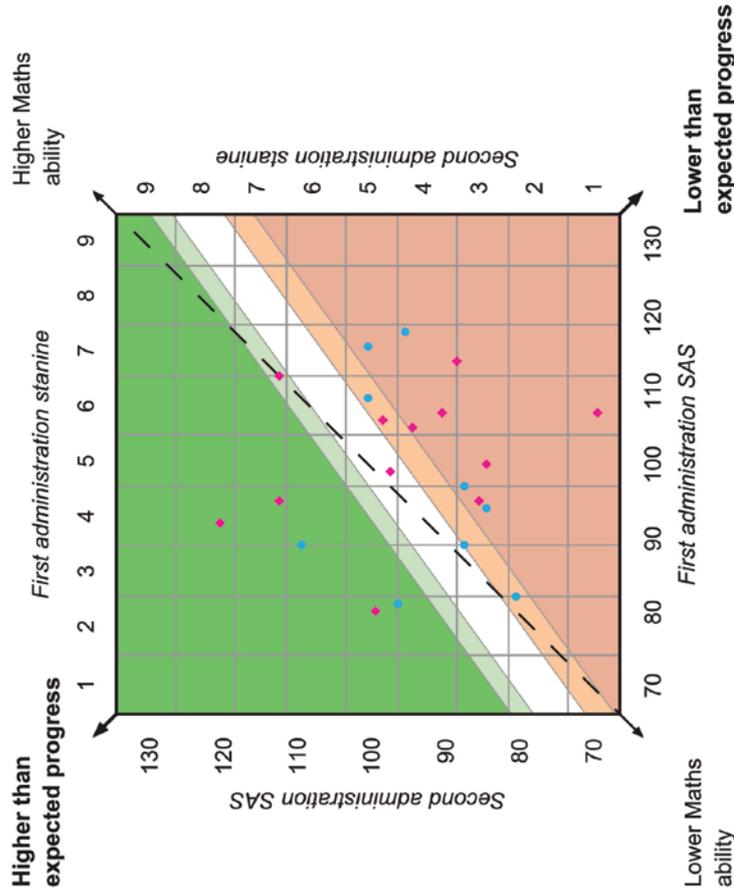
Progress profiles

The SAS for the first and second administrations of the test are shown in the diagram. Students who are considered to be making expected progress are in the white band. Students making lower and much lower than expected progress are in the light and the dark orange band and those making higher and much higher than expected progress are in the light and the dark green band respectively.

Note that only those students who have completed two valid administrations of PTM are able to have performance compared and therefore progress reported in this section.

- Much higher than expected progress
- Higher than expected progress
- Expected progress
- Lower than expected progress
- Much lower than expected progress

- Males
- Females



Progress scores for the group (by standard age score)

The table below shows the SAS for the first and second administrations of the test and the resulting SAS difference and progress category. Note that only those students who have completed two valid administrations of *PTM* are able to have performance compared and therefore progress reported in this section.

Student name	First administration SAS	Second administration SAS	SAS difference	Progress category
David Smith	101	131	30	Much higher than expected
Nathan Gill	88	118	30	Much higher than expected
Adian Fowler	89	117	28	Much higher than expected
Connor Gibson	92	114	22	Much higher than expected
Alice Jessica May	111	114	3	Higher than expected
Martin Gibson	88	113	25	Much higher than expected
Anthony Jameson	96	108	12	Much higher than expected
Rosaline Nash	105	106	1	Expected
Teodora Dunec	110	105	-5	Expected
Robert Robinson	100	104	4	Expected
Peter Adetunde	81	102	21	Much higher than expected
Rob Reagan	103	101	-2	Expected
Ryan Galvin	85	98	13	Much higher than expected
Rita Tucker	103	98	-5	Expected
Nita Moss	105	98	-7	Expected
Tom Albright	79	96	17	Much higher than expected
Nancy Roberts	86	95	9	Higher than expected
Declan Blair	91	94	3	Expected
Declan Kearney	77	92	15	Higher than expected
Tim Vincent	79	88	9	Expected
Natasha Aransola	109	87	-22	Much lower than expected
Peter Watt	92	85	-7	Lower than expected
Rebecca Mathews	92	82	-10	Much lower than expected
Tim Vincent	111	79	-32	Much lower than expected

Progress Test in Maths

Name: Elizabeth Hogan			
School: Test School			
Group: Class CE		Sex: Female	
Date of first test: 14/10/2015	Level: 13	Age: 12:09	
Date of second test: 14/10/2016	Level: 14	Age: 13:09	

Scores

No. attempted (/65)	SAS	SAS (with 90% confidence bands)											Overall ST	NPR	GR (/21)	GCSE indicator	Progress Category
		60	70	80	90	100	110	120	130	140							
65	120												8	91	1	A / 8	Above average

Progress Category: The progress category is shown as average, below average and above average.

Analysis of Curriculum content categories

Curriculum content category	Number of questions	Student % correct	National % correct	Student / national difference
Number	15	60%	37%	23%
Algebra	15	81%	29%	52%
Ratio, proportion and rates of change	7	100%	41%	59%
Geometry and measures	21	61%	26%	35%
Probability	4	25%	29%	-4%
Statistics	3	80%	59%	21%

Analysis of Process categories

Process category	Number of questions	Student % correct	National % correct	Student / national difference
Fluency in facts and procedures	11	55%	27%	28%
Fluency in conceptual understanding	22	80%	41%	39%
Problem solving	9	33%	16%	17%
Mathematical reasoning	23	76%	34%	42%

Implications for teaching and learning

- By comparing scores from a previous administration of *PTM* it is possible to categorise progress as below average (the student has not made as much progress as would be expected), average (the student has maintained the level of performance as shown in the last test), or above average (the student has made more progress than would be expected).
 - Elizabeth took *PTM13* in October 2015 and from then until now has made above average progress in maths.
- Reviewing the *Analysis of Curriculum content categories* will help to identify where there are specific strengths and weaknesses and to plan next steps.

- Where scores are fairly evenly balanced across the curriculum categories, this suggests that Elizabeth will generally demonstrate a level of understanding of mathematical concepts commensurate with this age group. Elizabeth is developing the language of mathematics broadly in line with expectations for her age group. Fluency and agility are better developed in Applying and Understanding Maths than Mental Maths.
- Where scores across the curriculum categories are uneven, specific areas of weakness might be addressed as follows:
 - Further targeted practice in the areas identified as being relatively weaker.
 - Practical activities using equipment that is designed to help Elizabeth to ‘see’ the thinking that lies behind any concepts that are not yet secure.
 - Get Elizabeth to explain workings to another student so that any misconceptions can be highlighted and corrected through discussion.
- Elizabeth is secure in performing the basic mental calculations expected for this age group and has performed above average in this aspect. These include fluency with whole numbers and the four operations, including number facts and the concept of place value (four and five digit numbers).
- Engage Elizabeth in discussion and provide opportunities for explaining methods and strategies to you and her peers.
- More emphasis on explaining methodology, justifying answers and procedures, together with the opportunity to change questions, for example by saying ‘What if...?’ and then altering some aspect (so the same skills of place value, for example, are being applied) of the set question, will ensure that Elizabeth develops her problem solving skills of reasoning and generalising.
- Next steps should include opportunities to stretch and develop conceptual understanding, to increase mental agility and to progress the development of formal written mathematics using age appropriate symbols and methodologies. This can be done by emphasising the higher order skills of hypothesising or predicting (for example, if a cylindrical tank with a radius of 40 cm and a height of 150 cm is filled at a rate of 0.2 litres per minute, will it take longer than 1 hour to fill?); interpreting results (if the angles of a quadrilateral are: 140°, 80°, 60° and 80°, is the quadrilateral a kite, parallelogram, rhombus or trapezium? how do you know?) and applying reasoning (showing a distance time graph of a race and asking the student to describe the race).
- To succeed in secondary level mathematics, a secure understanding of the concepts from primary maths should already be in place. This is not an exhaustive list but the concepts include:
 - i. equivalencies of fractions, percentages, decimals and ratios
 - ii. recognise proportionality in contexts when the relations between quantities are in the same ratio (for example, similar shapes and recipes)
 - iii. the use of symbols and letters to represent variables and unknowns in mathematical situations that Elizabeth already understands, such as:
 - i. missing numbers, lengths, coordinates and angles
 - ii. formulae in mathematics and science
 - iii. equivalent expressions (for example, $a + b = b + a$)
 - iv. generalisations of number patterns
 - iv. vocabulary associated with geometric shapes in 2D and 3D (perpendicular, parallel, perimeter, area, volume, vertex, edge and face) and calculate the area of parallelograms and triangles
 - v. simple vocabulary associated with the circle (radius, diameter, circumference, quadrant) and be familiar with simple associated algebraic expressions such as $d = 2 \times r$
 - vi. language of angles (obtuse, acute, reflex, vertically opposite)
 - vii. describe positions on the full coordinate grid (all four quadrants) including drawing and translating simple shapes on the coordinate plane, and reflecting them in the axes
 - viii. graphical representation of data in pie charts, bar graphs and scatter diagrams
 - ix. being able to calculate the mean of a set of data
 - x. ability to express unknown quantities with letters and a basic appreciation of algebra as a way of generalising.
 - i. equivalencies of fractions, percentages, decimals and ratios
 - ii. recognise proportionality in contexts when the relations between quantities are in the same ratio (for example, similar shapes and recipes)
 - iii. the use of symbols and letters to represent variables and unknowns in mathematical situations that Elizabeth already understands, such as:
 - i. missing numbers, lengths, coordinates and angles
 - ii. formulae in mathematics and science
 - iii. equivalent expressions (for example, $a + b = b + a$)
 - iv. generalisations of number patterns

Name: Elizabeth Hogan	
School: Test School	
Group: Class CE	Sex: Female
Date of first test: 14/10/2015	Age: 12:09
Date of second test: 14/10/2016	Age: 13:09
	Level: 13
	Level: 14

Analysis by question

The table below shows each question in the test and the student's response (correct/incorrect) compared with the group and national average.

Question number	Curriculum category	Process category	Question content	Score (x)	Group % correct	National % correct
MM1	Number	Fluency in facts and procedures	Write four fifths as a decimal.	1 / 1	33	41
MM2	Number	Fluency in facts and procedures	Multiply nought point nought six two by one hundred.	1 / 1	29	62
MM3	Number	Fluency in facts and procedures	Divide fifty-six by one thousand.	1 / 1	62	40
MM4	Ratio, proportion and rates of change	Fluency in conceptual understanding	What was the car's average speed?	1 / 1	33	53
MM5	Algebra	Fluency in conceptual understanding	What is the value of x?	1 / 1	43	54
MM6	Number	Fluency in conceptual understanding	How many people are in the group?	0 / 1	0	43
MM7	Geometry and measures	Fluency in conceptual understanding	What size is the fourth angle?	1 / 1	5	50
MM8	Geometry and measures	Fluency in conceptual understanding	Find the area of a triangle.	1 / 1	43	29
MM9	Number	Fluency in facts and procedures	How much grass seed is left?	0 / 1	0	29
MM10	Number	Fluency in conceptual understanding	What is fifteen as a percentage of seventy-five?	1 / 1	14	22
MM11	Algebra	Fluency in facts and procedures	What is the smallest positive whole number that x can be?	1 / 1	10	35
MM12	Number	Fluency in facts and procedures	Multiply nought point nought one by nought point six.	1 / 1	14	14
MM13	Algebra	Fluency in conceptual understanding	What is the value of y when x equals minus five?	1 / 1	10	17
MM14	Geometry and measures	Fluency in conceptual understanding	Write down the sizes of the three angles.	1 / 1	29	22
MM15	Number	Fluency in facts and procedures	What is the smallest length possible?	1 / 1	38	40
MM16	Geometry and measures	Fluency in conceptual understanding	What is the area of the square?	1 / 1	10	30
MM17	Geometry and measures	Fluency in conceptual understanding	Find the volume of a triangular prism.	1 / 1	43	21
MM18	Ratio, proportion and rates of change	Fluency in conceptual understanding	What was the sale price?	1 / 1	48	46
MM19	Probability	Fluency in conceptual understanding	What is the probability that I pick up a green pencil?	1 / 1	38	61

Individual report for parents

Name: Nathan Gill		
School: Sample School		
Group: Class P6-7		Sex: Male
Date of first test: 01/07/2014	Level: 8	Age: 7:07
Date of second test: 01/01/2015	Level: 9	Age: 8:01

What is *Progress Test in Maths*?

Progress Test in Maths (PTM) is a series of age-appropriate tests for teachers to use every year to ensure that students are making and maintaining good progress in mathematics. Each test assesses aspects of mathematical skill and knowledge, together with the key process skills of fluency, mathematical reasoning and problem-solving.

The *PTM* series consists of eleven tests: 10 tests covering the age range 5 to 14+ years (*Progress Test in Maths 5 to 14*), plus an additional test for pupils aged between 11 and 12 years, which can be used as a transition test on entry to secondary education (*Progress Test in Maths 11T*).

- For the youngest children (*PTM5*, *PTM6*, *PTM7* and *PTM8*) the teacher reads the questions and the answer options aloud so that the need to read is minimal.
- *PTM8* to *PTM14* tests are in two parts: Mental Maths, and Applying and Understanding Maths. Mental Maths questions are timed and played from an audio file (or read by the teacher). Applying and Understanding Maths questions are answered at the student's own pace.

Scores

No. attempted (/54)	SAS	SAS (with 90% confidence bands)											Overall ST	NPR	End of KS2 indicator	Progress Category
		60	70	80	90	100	110	120	130	140						
54	118												7	89	111	Much higher

Analysis of Curriculum content categories

Curriculum content category	Number of questions	Student % correct	National % correct	Student / national difference
Number	38	85%	64%	21%
Measurement	6	25%	54%	-29%
Geometry	4	83%	49%	34%
Statistics	6	83%	73%	10%

Analysis of Process categories

Process category	Number of questions	Student % correct	National % correct	Student / national difference
Fluency in facts and procedures	13	85%	74%	11%
Fluency in conceptual understanding	23	76%	66%	10%
Problem solving	6	89%	38%	51%
Mathematical reasoning	12	64%	60%	4%

Description of scores

- Nathan is performing at or above age expectations across the curriculum for maths. Encourage Nathan to discuss the different ways of arriving at the correct answer. Reasoning and conversation lie at the heart of developing problem solving skills, so talking about school work will help Nathan develop as a good mathematician. Additional challenge can be added by asking 'What if...?', and then change the problem in some way.
- Where possible, offer opportunities for Nathan to discuss school work with you. Ask *how* the answer was arrived at and allow Nathan to 'teach' you. Involve Nathan in practical calculations around the house; shopping bills and measuring ingredients for example. Challenge Nathan to estimate lengths, areas and weights and then check to see how close the estimates are. With practice, this will improve further.

Description of progress

By comparing scores from a previous administration of *PTM* it is possible to categorise progress as:

- Much lower than expected;
- Lower than expected;
- Expected;
- Higher than expected; or
- Much higher than expected.

Nathan took *PTM8* in July 2014 and from then until now has made much higher than expected progress in maths.

Group report for teachers

School: Test Schoól	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

What is *Progress Test in Science*?

Progress Test in Science provides a series of age-appropriate tests for teachers to use every year to ensure that pupils are making and maintaining good progress in science. The test provides a reliable assessment of a pupil's knowledge and understanding of science, as well as their application of this knowledge and understanding. The concept of 'working scientifically' is also addressed.

The *PTS* series consists of seven tests: six tests covering the age range 7 to 14+ years (*Progress Test in Science* 8 to 14), plus an additional test for pupils aged between 11 and 12 years, which can be used as a transition test on entry to secondary education (*Progress Test in Science* 11T).

Why use *Progress Test in Science*?

Using *Progress Test in Science* year-on-year provides reliable information on children's attainment in the core science subject areas. The test series consistently assesses similar aspects of science knowledge and skills across the age range.

Progress Test in Science can be used for both formative and summative purposes to identify pupils who need additional support or extension work, to identify patterns of performance and areas for development for the whole class, and to compare pupils with their peers nationally. It will help the teacher to track the progress of individual pupils and allows the head teacher to compile an essential database of science attainment which, over time, will become an invaluable record of how particular cohorts have achieved and progressed. If testing with the *Progress Test in Science* is carried out from age 8, and continues on an annual basis, the resulting profile of individual pupil and group attainment can help support the school's aim of raising standards in science.

The Standard Age Score (SAS), when used to track progress year-on-year, provides a reliable way of ensuring that monitoring is accurate and based on relevant test content, and that pupils are making good progress.

Relationship between scores

Description	Very Low			Below Average			Average			Above Average			Very High														
Stanine (ST)	1			2			3			4			5			6			7			8			9		
Standard Age Score (SAS)	70			80			90			100			110			120			130								
National Percentile Rank (NPR)	1	5	10	20	30	40	50	60	70	80	90	95	99														

School: Test School	No. of students: 25
Group: Class P6-7	
Date of test(s): 01/01/2015 – 02/01/2015	

Scores for the group (by standard age score)

Student name	Age at test (yrs:mths)	No. attempted (/40)	SAS	SAS (with 90% confidence bands)											Overall ST	NPR	GR (/25)	Science level	Stanines				
				60	70	80	90	100	110	120	130	140	Bi	Ch					Ph	Ws			
Tim Vincent	8:11	40	136													9	99	1	3	9	9	9	6
Alice Jessica May	7:02	40	130													9	98	2	3	9	7	8	9
Teodora Dunec	7:02	25	126													8	96	3	3	9	7	9	6
Martin Gibson	7:02	26	119													8	90	4	3	9	7	6	5
Rosaline Nash	7:01	16	108													6	70	5	2	4	9	6	4
Nita Moss	7:01	25	105													6	63	6	2	7	4	6	4
Rita Tucker	7:00	21	101													5	52	7	2	6	5	4	4
Rob Reagan	7:01	25	100													5	50	=8	2	7	5	3	4
Rob Reagan	7:03	21	100													5	50	=8	2	4	7	4	4
Anthony Jameson	7:06	21	100													5	50	=8	2	4	6	6	3
Nathan Gill	7:01	15	99													5	48	11	2	5	6	3	3
Peter Watt	8:11	40	98													5	45	12	2	4	7	6	4
Declan Blair	8:10	25	96													4	40	13	2	4	7	6	4
Tim Vincent	8:06	21	93													4	32	=14	2	5	5	2	3
Nancy Roberts	8:11	21	93													4	32	=14	2	5	7	2	4
Connor Gibson	7:01	21	92													4	30	16	1	4	4	3	3
Rebecca Mathews	8:04	21	88													3	22	17	1	1	9	4	3
Adrian Fowler	7:01	21	77													2	6	=18	1	2	4	2	2
Natasha Aransola	7:01	15	77													2	6	=18	1	4	1	1	1
Robert Robinson	8:09	26	76													2	6	20	1	1	5	1	2
David Smith	7:02	21	73													1	4	21	1	2	4	1	1
Ryan Galvin	7:07	21	70													1	2	22	1	1	5	1	2
Peter Adetunde	7:02	21	69													1	2	=23	1	1	1	1	1
Declan Kearney	7:06	15	69													1	2	=23	1	1	1	1	1
Tom Albright	8:09	21	68													1	2	=23	1	1	3	1	1

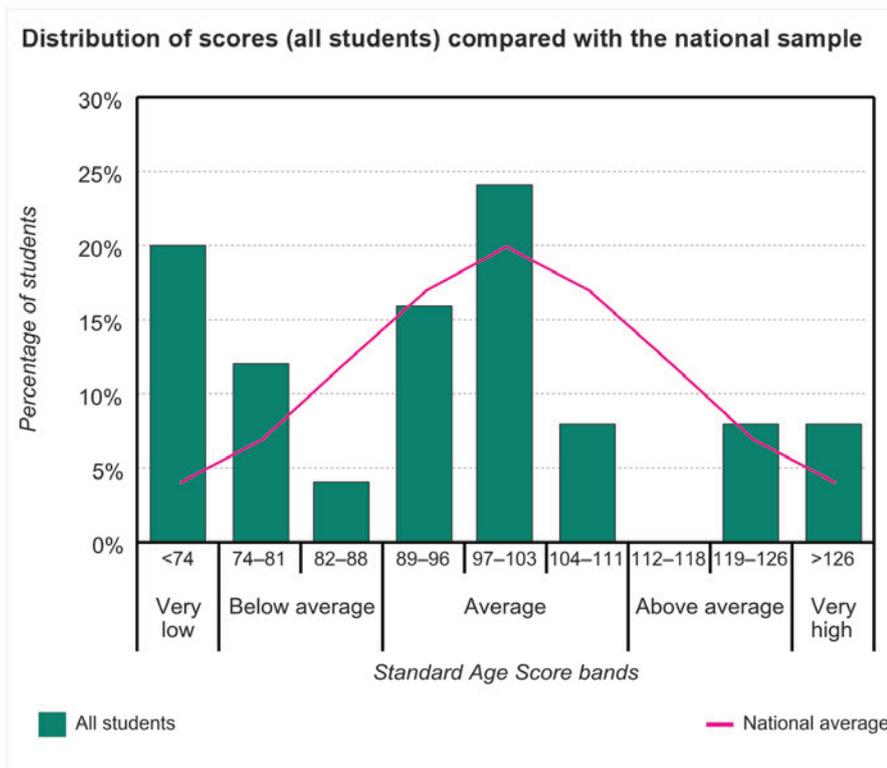
Stanines are Biology (Bi), Chemistry (Ch), Physics (Ph) and Working scientifically (Ws).

School: Test Schoól	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

Analysis of group scores (all students)

The table and bar chart below show the distribution of scores for the group against the national average.

Description	Very low	Below average		Average			Above average		Very high
		SAS bands	<74	74–81	82–88	89–96	97–103	104–111	
National average	4%	7%	12%	17%	20%	17%	12%	7%	4%
All students	20%	12%	4%	16%	24%	8%	0%	8%	8%



The mean standard age score for this group is not significantly different from the national average.

The spread of standard age scores for this group is significantly higher than the national average.

The table below shows the mean scores with confidence bands for the group against the national average.

	No. of students	Mean SAS	SAS (with 90% confidence bands)											
			60	70	80	90	100	110	120	130	140			
National average	-	100.0					●							
All students	25	94.6				●	—							

Progress Test in Science

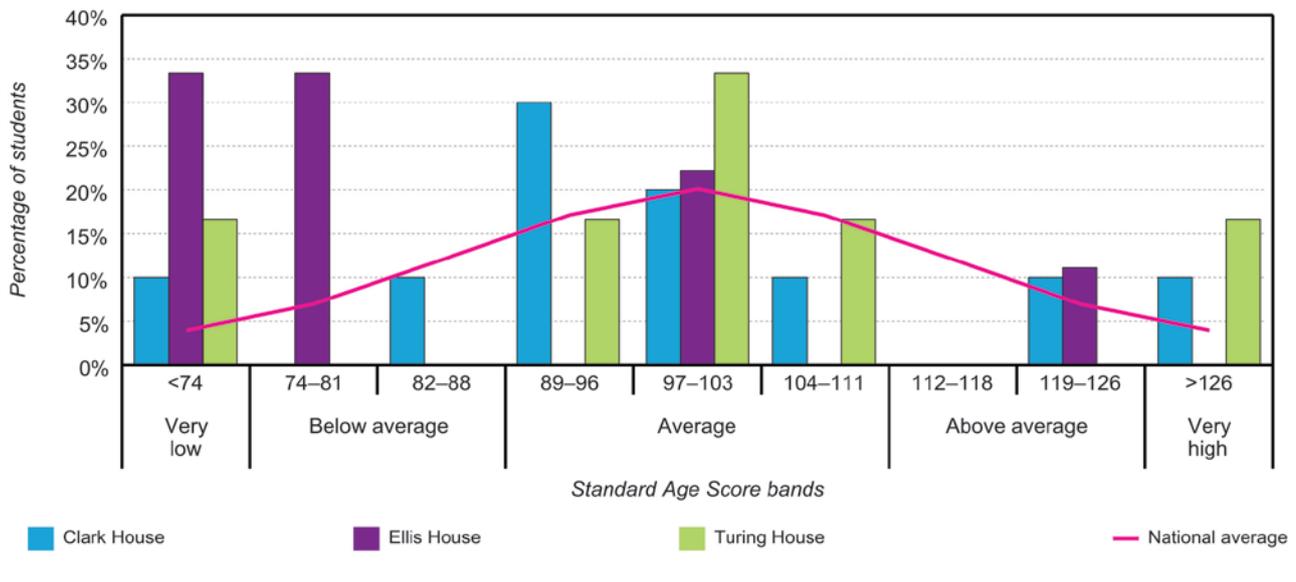
School: Test School	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

Analysis of group scores (by custom 1)

The table and bar chart below show the distribution of scores for the group against the national average.

Description	Very low	Below average		Average			Above average		Very high
	<74	74–81	82–88	89–96	97–103	104–111	112–118	119–126	>126
National average	4%	7%	12%	17%	20%	17%	12%	7%	4%
All students	20%	12%	4%	16%	24%	8%	0%	8%	8%
Clark House	10%	0%	10%	30%	20%	10%	0%	10%	10%
Ellis House	33%	33%	0%	0%	22%	0%	0%	11%	0%
Turing House	17%	0%	0%	17%	33%	17%	0%	0%	17%

Distribution of scores (by custom 1) compared with the national sample



The table below shows the mean scores with confidence bands for the group against the national average.

	No. of students	Mean SAS	SAS (with 90% confidence bands)											
			60	70	80	90	100	110	120	130	140			
National average	-	100.0					•							
All students	25	94.6					•	—						
Clark House	10	100.1					•	—						
Ellis House	9	84.3			•	—								
Turing House	6	100.7					•	—						

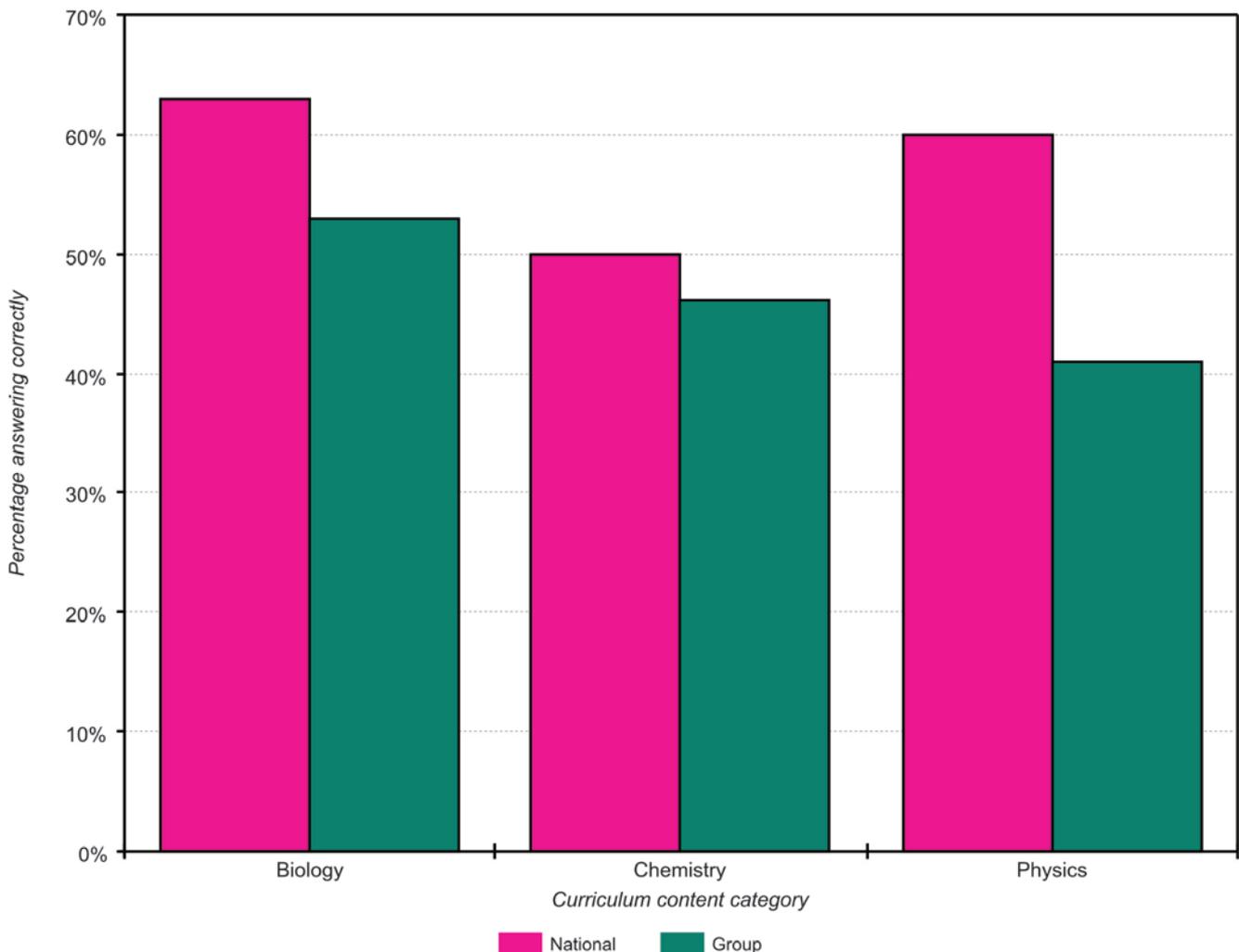
School: Test Schoól	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

Analysis of group scores (by Curriculum content category)

The table and chart below show the percentage of questions answered correctly by all students compared with those for the national average.

Curriculum content category	Number of questions	Group % correct	National % correct	Difference
Biology	17	53%	63%	-10%
Chemistry	12	46%	50%	-4%
Physics	11	41%	60%	-19%

Percentage of questions answered correctly by all students compared with the national average



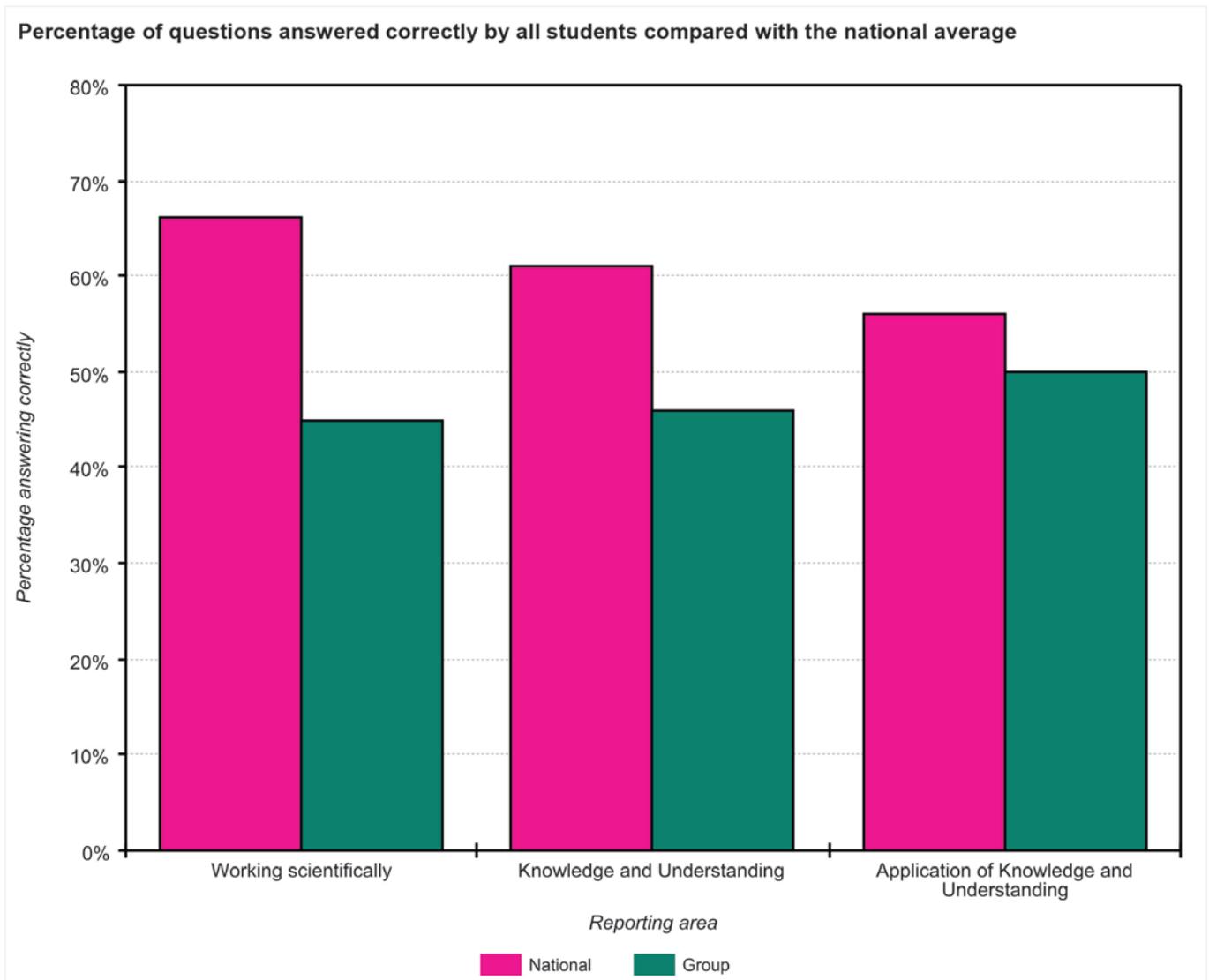
Progress Test in Science

School: Test Schoól	
Group: Class P6-7	No. of students: 25
Date of test(s): 01/01/2015 – 02/01/2015	

Analysis of group scores (by Reporting area)

The table and chart below show the percentage of questions answered correctly by all students compared with those for the national average.

Reporting area	Number of questions	Group % correct	National % correct	Difference
Working scientifically	15	45%	66%	-21%
Knowledge and Understanding	20	46%	61%	-15%
Application of Knowledge and Understanding	20	50%	56%	-6%



School: Test School	No. of students: 25
Group: Class P6-7	
Date of test(s): 01/01/2015 – 02/01/2015	

The table below shows each question and the percentage correct for the group compared with the national average (by national % correct).

Question number	Curriculum category	Reporting area	Question content	Group % correct	National % correct	Group / national difference
7	Physics	Knowledge and Understanding	How is a torch useful?	40	94	-54
12	Chemistry	Knowledge and Understanding	Which piece of equipment measures temperature?	4	93	-89
24	Physics	Knowledge and Understanding	Which material does a magnet attract?	48	91	-43
1	Biology	Knowledge and Understanding	Which part of the plant takes in water and nutrients?	96	89	7
35	Biology	Application of Knowledge and Understanding	Which flower is the highest from the ground?	76	86	-10
2	Biology	Application of Knowledge and Understanding	What do the results in the table show?	92	85	7
8	Physics	Knowledge and Understanding	Why is it safer to look at the Moon than it is to look at the Sun?	40	85	-45
36	Biology	Knowledge and Understanding	Marek observes that a seed grows better in damp soil than in dry soil. This is because...	16	81	-65
14	Chemistry	Application of Knowledge and Understanding	Why is this not a fair test...	28	80	-52
17	Biology	Knowledge and Understanding	Which part of Jenna's body pulls on her bones to make her arm move?	12	80	-68
38	Biology	Application of Knowledge and Understanding	What was the length of the chestnut leaf?	60	80	-20
18	Biology	Application of Knowledge and Understanding	Which graph shows the insects that Mr Green finds?	44	76	-32
19	Biology	Knowledge and Understanding	Which part of the human body supports the shape of the body?	68	69	-1
21	Biology	Application of Knowledge and Understanding	Which question is Mrs Patel trying to answer?	28	64	-36
28	Physics	Application of Knowledge and Understanding	What do Hassan's results show?	16	64	-48
9	Physics	Application of Knowledge and Understanding	Which object below reflects light the best?	60	62	-2
13	Chemistry	Knowledge and Understanding	The fossil shows that the leaf...	4	62	-58
11	Physics	Knowledge and Understanding	What causes the shadow?	64	61	3
20	Chemistry	Knowledge and Understanding	Which question must Tam answer by measuring instead of just observing?	48	61	-13
31	Chemistry	Application of Knowledge and Understanding	Which picture below is limestone?	100	59	41
22	Biology	Application of Knowledge and Understanding	All of the different foods that we eat...	44	56	-12

Progress Test in Science

Student profiles

To understand how different pupils have performed on *PTS*, it may be helpful to group together those with a different profile of scores. Although it is important to focus on overall performance, it is possible to differentiate between pupils whose performance is 'Low' (Stanines 1-3), 'Medium' (Stanines 4, 5 & 6) and 'High' (Stanines 7, 8 & 9).

Whilst it may be helpful to consider which pupils fall into which category, this information must be treated with caution as this is based on a single snapshot in time. It should be remembered that children may perform differently on another occasion when being observed by a teacher, and that progression across the different science topics will not necessarily be even.

Low performance		
<ul style="list-style-type: none">• These pupils are performing below national age related expectations, and their scores vary from very low to below average. It is recommended that individual diagnostic assessments on reading and comprehension are administered to investigate if additional support is needed and to decide on appropriate interventions to ensure pupils are able to access science texts.• Pupils with a low score will need specific structured support to access the curriculum. They will need to develop their reading skills to be able to read with a purpose and to extract meaning from a science text. Use of diagrams and other visual aids will be helpful when explaining ideas and scientific vocabulary.• The development of mathematical skills in science can be supported by using measuring tools in practical activities, and drawing and reading representations of data. A range of measures such as length, mass and volume should be used as appropriate.• Getting pupils to discuss scientific ideas or solve problems in pairs or groups will help consolidate their understanding and develop their scientific language. They will be required to reason, explain, and justify, which are all critical to developing an understanding of science.• Pupils should be encouraged to build their vocabulary in science and to identify the meaning of unfamiliar scientific words by looking for the same words in other contexts, and using glossaries, dictionaries and thesauruses.		
Students:		
Peter Adetunde	Tom Albright	Natasha Aransola
Adian Fowler	Ryan Galvin	Declan Kearney
Rebecca Mathews	Robert Robinson	David Smith

Medium performance		
<ul style="list-style-type: none">• These pupils demonstrate a performance that is broadly average and in line with national age related expectations. The individual reports should be used to identify more precisely where strengths and weaknesses in the different areas of science lie, and where additional support or greater challenge is most needed.• Pupils should have a secure understanding of each block of knowledge and concepts to be able to progress. Plan activities where pupils can demonstrate their learning to help identify any gaps that might slow them down later, when moving on to more advanced content.• Pupils will need to build up their understanding and correct use of scientific vocabulary. Encourage and model the use of scientific language to discuss ideas and communicate findings, both in writing and in speech. Introducing more abstract ideas and findings can help pupils improve and develop their understanding of how the world operates.• Provide practice time and frequent opportunities for these pupils to use one or more facts that they already know to work out more facts, and engage them in discussion (also by providing discussion topics using common misconceptions). Give opportunities for them to explain their methods and findings to you and their peers, which will help them to make connections, and develop both their scientific thinking and their language of science.		
Students:		
Declan Blair	Connor Gibson	Nathan Gill
Anthony Jameson	Nita Moss	Rosaline Nash
Rob Reagan	Rob Reagan	Nancy Roberts
Rita Tucker	Tim Vincent	Peter Watt

High performance		
<ul style="list-style-type: none">• These pupils are performing above or significantly above national related expectation for their age group and their scores vary from above average to very high. While they are secure in their knowledge and skills, the individual reports should be used to identify where greater challenge or support is most needed.• Pupils with a high score will want and need to go beyond the answer to a particular question and raise follow-up questions. More abstract ideas should be introduced and discussed. They should also be encouraged to discuss different methods and experiments and how these are used to explain and predict how the world operates. Reasoning and conversation lie at the heart of developing problem-solving skills, as they afford the opportunity to conjecture, hypothesise and test whilst promoting perseverance and resilience.• Next steps should include opportunities to stretch and develop their understanding of science. This can be done by planning open activities that are differentiated by outcome and allowing pupils to plan their own experiment to investigate a question. Give them the opportunity to change questions (for example by introducing 'What if...' scenarios) to ensure that they develop skills of application and problem solving.• Provide practise time and frequent opportunities for these pupils to use one or more facts that they already know to work out more facts, and engage them in discussion (also by providing discussion topics using common misconceptions). Give opportunities for them to explain their methods and findings to you and their peers, this will help them to make connections and develop both their scientific thinking and their language of science.• Offering opportunities to be the teacher to a group of other pupils is a good way to help pupils develop their own understanding.		
Students:		
Teodora Dunec	Martin Gibson	Alice Jessica May
Tim Vincent		

Name: Rita Tucker		
School: Test School		
Group: Class P6-7		Sex: Female
Date of test: 01/01/2015	Level: 8	Age: 7:00

Scores

No. attempted (/40)	SAS	SAS (with 90% confidence bands)											Overall ST	NPR	GR (/25)	Science level	Stanines				
		60	70	80	90	100	110	120	130	140	Bi	Ch					Ph	Ws			
21	101													5	52	7	2	6	5	4	4

Curriculum stanines are Biology (Bi), Chemistry (Ch), Physics (Ph) and Working scientifically (Ws).

Analysis of Curriculum content categories

Curriculum content category	Number of questions	Student % correct	National % correct	Student / national difference
Biology	17	65%	63%	2%
Chemistry	12	42%	50%	-8%
Physics	11	45%	60%	-15%

Analysis of Reporting area

Reporting area	Number of questions	Student % correct	National % correct	Student / national difference
Working scientifically	15	53%	66%	-13%
Knowledge and Understanding	20	60%	61%	-1%
Application of Knowledge and Understanding	20	45%	56%	-11%

Implications for teaching and learning in science

Rita demonstrates an age-appropriate level of knowledge and understanding in science.

Analysis of performance in the following categories may help to identify specific strengths and weaknesses and to plan next steps:

- Knowledge and Understanding
- Application of Knowledge and Understanding
- Working Scientifically

Where scores are below that expected, support or intervention might be considered to accelerate progress.

Intervention, support and challenge

- Support Rita to develop learning skills essential in science. Skills such as retrieval of simple information (from books or internet) and scientific writing and data representation (creating simple graphs and tables)

Progress Test in Science

- Provide opportunities for Rita to articulate scientific concepts clearly and precisely by modelling use of scientific language and encouraging discussions about science. Encouraging Rita to think and speak using scientific language will improve her ability to write scientifically.
- Consider using joint text construction as a strategy to support Rita with writing scientifically, using the correct words, phrases and conventions used in science writing.
- Ensure that Rita builds a secure understanding of each block of knowledge and concepts in order to make progress and successfully deal with the higher-order content of subsequent key stages.
- Use discussion to probe and remedy Rita's misconceptions. For example, use concept cartoons or planned open questions like "how do plants get food?" to establish prior knowledge and misconceptions at the beginning of a topic or a lesson.
- Provide frequent opportunities for active learning (pair or group discussions, practical work or other 'hands on' activities).
- Support Rita to develop scientific skills by highlighting the application of knowledge and skills in new contexts and emphasising links between topics.

Implications for working scientifically

Rita's score for Working Scientifically is as expected for her age, but improvement in this area could further increase her understanding and performance in science.

Intervention, support and challenge

- When planning and carrying out investigations in science, provide Rita with lightly scaffolded resources with a clear structure for planning and recording. Writing frames may be a useful and an effective way of teaching her how to write up investigations using the correct science conventions.
- Plan opportunities for Rita to design and carry out simple science investigations. Evidence suggests the best science learning takes place when children are investigating for themselves. Get Rita to form her own questions to investigate, select appropriate equipment (provide a list of possible equipment or hints/tips if necessary) and decide how to make her investigation a fair test.
- Make sure Rita is able to take measurements using a range of scientific equipment such as a ruler, thermometer, measuring cylinder and beaker. She should be able to select which type of equipment is the best to use when measuring different variables.
- Create opportunities for Rita to gain confidence in using standard units such as centimetres, metres, grams and kilograms and in knowing how they relate to each other (e.g. 100 cm make up a metre).
- Provide time for Rita to learn and practise how to read and extract information from tables and graphs. This will develop her ability to interpret information presented in graphical forms and her ability to draw conclusions.
- Provide opportunities for Rita to practise recording findings using a variety of graphs or charts.

Name: Rita Tucker	
School: Test School	
Group: Class P6-7	Sex: Female
Date of test: 01/01/2015	Age: 7:00
Level: 8	

Analysis by question

The table below shows each question in the test and the pupil's response (correct/incorrect) compared with the group and national average.

Question number	Curriculum category	Reporting area	Question content	Score (/x)	Group % correct	National % correct
1	Biology	Knowledge and Understanding	Which part of the plant takes in water and nutrients?	1 / 1	96	89
2	Biology	Application of Knowledge and Understanding	What do the results in the table show?	1 / 1	92	85
3	Biology	Knowledge and Understanding	When grass makes its own food, it does not need...	1 / 1	80	55
4	Chemistry	Application of Knowledge and Understanding	Which event had to happen for trees to start growing on Earth?	0 / 1	36	42
5	Biology	Knowledge and Understanding	Which is the correct order of the life cycle stages of a plant?	1 / 1	56	50
6	Biology	Application of Knowledge and Understanding	What do Tam's results show?	1 / 1	68	30
7	Physics	Knowledge and Understanding	How is a torch useful?	1 / 1	40	94
8	Physics	Knowledge and Understanding	Why is it safer to look at the Moon than it is to look at the Sun?	0 / 1	40	85
9	Physics	Application of Knowledge and Understanding	Which object below reflects light the best?	1 / 1	60	62
10	Physics	Application of Knowledge and Understanding	At which time will Emma's shadow be the shortest?	0 / 1	28	21
11	Physics	Knowledge and Understanding	What causes the shadow?	1 / 1	64	61
12	Chemistry	Knowledge and Understanding	Which piece of equipment measures temperature?	0 / 1	4	93
13	Chemistry	Knowledge and Understanding	The fossil shows that the leaf...	0 / 1	4	62
14	Chemistry	Application of Knowledge and Understanding	Why is this not a fair test...	0 / 1	28	80
15	Chemistry	Knowledge and Understanding	Which event happens first when a fossil is made?	0 / 1	24	39
16	Chemistry	Application of Knowledge and Understanding	Soils are mostly made of...	1 / 1	88	31
17	Biology	Knowledge and Understanding	Which part of Jemma's body pulls on her bones to make her arm move?	0 / 1	12	80
18	Biology	Application of Knowledge and Understanding	Which graph shows the insects that Mr Green finds?	0 / 1	44	76
19	Biology	Knowledge and Understanding	Which part of the human body supports the shape of the body?	1 / 1	68	69
20	Chemistry	Knowledge and Understanding	Which question must Tam answer by measuring instead of just observing?	1 / 1	48	61

Individual report for parents

Name: Rita Tucker			
School: Test Schoól			
Group: Class P6-7		Sex: Female	
Date of test: 01/01/2015	Level: 8	Age: 7:00	

What is *Progress Test in Science*?

Progress Test in Science provides a series of age-appropriate tests for teachers to use every year to ensure that pupils are making and maintaining good progress in science. The test provides a reliable assessment of a pupil's knowledge and understanding of science, as well as their application of this knowledge and understanding. The concept of 'working scientifically' is also addressed.

The *PTS* series consists of seven tests: six tests covering the age range 7 to 14+ years (*Progress Test in Science* 8 to 14), plus an additional test for pupils aged between 11 and 12 years, which can be used as a transition test on entry to secondary education (*Progress Test in Science* 11T).

Scores

No. attempted (/40)	SAS	SAS (with 90% confidence bands)											Overall ST	NPR	Science level	Stanines				Progress Category		
		60	70	80	90	100	110	120	130	140	Bi	Ch				Ph	Ws					
21	101																	6	5	4	4	-

Analysis of Curriculum content categories

Curriculum content category	Number of questions	Student % correct	National % correct	Student / national difference
Biology	17	65%	63%	2%
Chemistry	12	42%	50%	-8%
Physics	11	45%	60%	-15%

Analysis of Reporting area

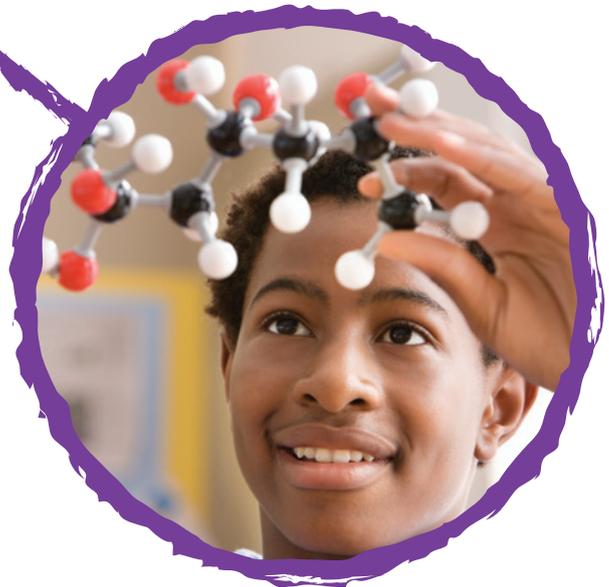
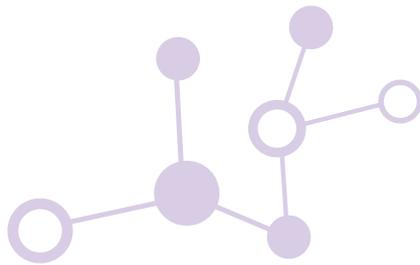
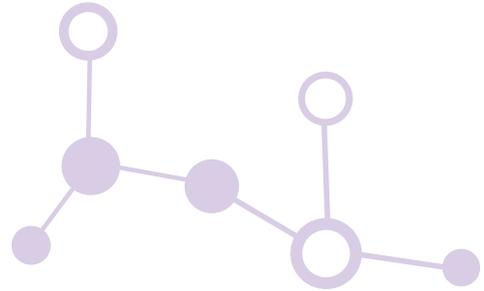
Reporting area	Number of questions	Student % correct	National % correct	Student / national difference
Working scientifically	15	53%	66%	-13%
Knowledge and Understanding	20	60%	61%	-1%
Application of Knowledge and Understanding	20	45%	56%	-11%

Description of scores

Rita demonstrates a level of knowledge and understanding in science appropriate to her age.

Supporting learning at home

- Encourage Rita's interest in science by e.g. visiting free online study support resources that have been designed to aid pupils with their school work.
- Model curiosity and take opportunities to ask scientific questions like "What would happen if ...?". This will encourage Rita to be inquisitive and seek out answers.
- Encourage Rita to describe and explain what she is learning about in science at school. Spend time together finding out more about science topics that interest her.
- Encourage Rita to read about science topics that interest her outside of school. Local libraries usually have a good range of books that relate to science.
- Encourage Rita to carry out science investigations at home. There are numerous websites and books that provide ideas for fun and interesting science experiments that can be done by children at home using household items.



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