# Progress in Reading Assessment

Please make sure this is used for the new edition PiRA tests ONLY

Year R, Key Stage 1 & Key Stage 2 Test Guidance

Published Sept. 2021

**RS** ASSESSMENT FROM HODDER EDUCATION

First published in March 2021.

Summer standardisation added in summer 2021 and republished in September 2021.

### Contents

A	cknowledgements	5
1	Introduction	6
	Background to the new edition	6
	New PiRA test design	7
	Why use <i>New PiRA</i> ?	8
	Monitoring and predicting progress using New PiRA	10
	Reading demand: progression in New PiRA	11
	Phonics in <i>New PiRA</i>	13
	Who can you assess using New PiRA?	16
2	Administering New PiRA tests	17
	When to test	17
	Group size	17
	Timing	17
	Preparation	17
	Administering the test	18
	Teacher scripts for Reception and Key Stage 1	19
3	Marking and analysing New PiRA	22
	Marking the answers	22
	Profiling performance by content domain (or strand)	22
	Using MARK for online analysis and reports	23
	Using the test booklets and Test Guidance tables	24
	Interpreting the results	24
	Record sheet (for each test – photocopiable)	25

4	Obtaining and interpreting test scores	32
	Summative measures	32
	Diagnostic and formative interpretation	39
	Reporting progress using the Hodder Scale	40
	Estimating future performance with the Hodder Scale	40
	Relating New PiRA 6 test scores to the national standard	46
	Performance indicators	46
	Case studies	47
-	Technical information	52
5	rechnical mornation	52
5	Standardisation sample	52
5		
5	Standardisation sample	52
5	Standardisation sample The impact of Covid on standardisation trialling	52 54
6	Standardisation sample The impact of Covid on standardisation trialling Reliability	52 54 56
-	Standardisation sample The impact of Covid on standardisation trialling Reliability Validity	52 54 56 60

### **Acknowledgements**

A team effort led to the creation and development of New PiRA:

- The major author was Kate Ruttle. She wrote the 14 tests from Reception year to the end of Year 4 and worked with Colin McCarty on the design, editing and evolution of all the assessments and mark schemes.
- Marie Lallaway wrote the six texts and some of the questions for Years 5 and 6.
- Mig Bennett wrote the playscripts for Years 3, 4, 5 and 6.
- > Lorna Pepper advised on the quality and demand of all the texts and questions.
- Viv Kilburn was the language consultant.
- Jane Swift was the illustrator.
- Tony Kiek worked with Colin McCarty to undertake the statistical analyses and produce the standardised scores and target-setting predictions from the marks obtained in the standardisation.
- Colin McCarty designed the suite of tests, together with the indicative and diagnostic information for teachers. For this edition he worked closely with Charlotte Hiorns, the commissioning editor at RS Assessment from Hodder Education, to present the tests, mark schemes and information in easy-to-use formats.

Our sincere thanks go to the staff of the following schools who administered the testing for the 2019-21 standardisation and the many thousands of pupils who took the assessments each term.

All Saints CEVA Primary School, Wellingborough, Northamptonshire Ancaster C of E Primary School, Ancaster, Lincolnshire Ardeley St Lawrence VA Primary School and Nursery School, Hertfordshire Bearpark Primary School, Durham Birstall Primary Academy, Batley, West Yorkshire Booth Wood Primary School, Loughborough, Leicestershire Burley Oaks Primary School, Ilkley, West Yorkshire Cockshutt CE Primary School, Ellesmere, Shropshire Coulsdon C of E Primary School, Surrey Criftins CE Primary School, Ellesmere, Shropshire Didsbury Road Primary School, Stockport Frogwell Primary School & Complex Needs Resource Base, Wiltshire Gretton Primary School, Gloucestershire Griffin Park Primary School, Blackburn, Lancashire Griffydam Primary School, Leicestershire High Ercall Primary School, Telford, Shropshire Ivydale School, London Kensington Avenue Primary School, Croydon Keresley Grange Primary, Coventry Killingholme Primary School, N. E. Lincolnshire King's Hill Primary School, Wednesbury, West Midlands Lamberhurst St Mary's CE Primary, Kent

Laughton Junior & Infant School, Sheffield Lower Halstow Primary School, Kent Malden Parochial Church of England Primary School, Worcester Park, Surrey Newington CE Primary School, Kent Newton Poppleford Primary School, Devon Normanton-on-Soar Primary School, Loughborough, Leicestershire Parkfield Primary School, Taunton, Somerset Pondhu Primary School, Cornwall **Riccall Community Primary, Yorkshire** River View Primary School, Salford, Manchester Riverside Primary School, Plymouth, Devon Southill Primary School, Dorset St Paul's Church of England Combined School, Buckinghamshire St Saviour's C of E Academy, Stoke on Trent, Staffordshire St Stephen's RC Primary School, Manchester St William of York Catholic Primary School, Liverpool Sytchampton Primary School, Worcestershire Tackley C of E Primary School, Oxfordshire Teynham Parochial C of E Primary School, Kent Weston-under-Penyard CE Primary School, Herefordshire Whitehouse Common Primary School, Sutton Coldfield, West Midlands

### **1** Introduction

#### Background to the new edition

This new edition of *Progress in Reading Assessment (PiRA)* provides termly standardised assessments of a pupil's reading attainment, plus a diagnostic profile of reading skills, which help you identify those pupils who may need further teaching and practice, as well as enabling you to celebrate success. *New PiRA* is designed for whole-class use, with pupils of all abilities.

*New PiRA* is designed to be used towards the end of each term in every primary school year, in order to measure and monitor pupils' progress and to provide reliable, indicative and diagnostic information covering each year of the National Curriculum 2014. Tests are available for Years 1 to 6 in autumn, spring and summer and for Reception in spring and summer only. The tests are simple and quick to administer and straightforward to mark. Each test takes between 30 and 55 minutes, depending on the year.

The tests are available in pencil-and-paper format and also in an online interactive version – *New PiRA Interactive*. Online analysis and reports are available for both the pencil-and-paper and interactive test formats. Reports from My Assessment and Reporting Kit (MARK), our online analysis and reporting service, can be used to guide you towards *Shine*: *Targeted Interventions for Primary*, a focused intervention programme which is designed to support pupils who are falling just below expected standards in one or more areas of learning in *New PiRA*. For more information on *Shine*, see page 23.

A robust standardisation exercise (involving 46 schools and over 15,000 tests each term) was undertaken – at the end of November 2019 and in March 2020 and June 2021 – to ensure that the marks pupils obtained on each new test provide the most up-to-date basis for standardised scores and diagnostic analyses. Further details about these processes are provided in Chapter 5 Technical information (page 52).

The overall design of the tests has been a critical part of the planning for this new edition. Table 1.1 (page 8) shows the marks available in each of the strands (or content domains). New to this edition is that five marks of harder extension questions have been included in certain years to give pupils greater opportunity to practise more open types of question, in readiness for national assessment. Overview **assessment maps** are available at https://www.risingstars-uk.com/subjects/assessment/rising-stars-pira-tests/sample-pages. These show which content domains are assessed in each test.

This edition retains all the texts of the previous edition. However, we have taken the opportunity to adapt some of the texts to ensure they are all suitable for assessment that explores inferential reading. Around 20% of the questions from the previous edition have been replaced or updated so that the skills being taught in the National Curriculum 2014 are regularly assessed each term.

The tests provide thorough coverage of the assessable elements in the National Curriculum 2014 Programme of Study for each year. This has been assured by systematically sampling Key Stage 1 and Key Stage 2 performance descriptors for English, using the 2016 Reading Test Framework and being informed by the Key Stage 1 and Key Stage 2 national tests. Care has been taken to ensure that the overall balance of questions in *New PiRA* reflects the balance and style of questions now found in the Key Stage 1 and Key Stage 2 national tests, with the exception that we have ensured a more consistent and comprehensive curriculum coverage than is commonly seen in a national test paper.



Standards in reading have risen since the second edition of *PiRA* was published in 2016. This means that some pupils' marks may appear to dip as you migrate to this new edition. For the purposes of **monitoring pupils' progress**, conversion tables are provided online in the resource picker in MARK showing how scores on the current tests relate to those in the former edition, to indicate what score a pupil would have received on the equivalent previous edition test. As part of the standardisation, the relationship between *New PiRA* tests and national test scores will be researched. These correlation studies will be reported once we have the data from the next available Key Stage 1 and Key Stage 2 national tests with which to link our tests.

#### New PiRA test design

The general pattern of change to the balance of marks from the second edition of *PiRA* to this third edition has been:

- > to increase the number of inference marks at the expense of marks focused on structure
- to increase the number of comparison questions at the expense of questions assessing impact of the text
- to increase the number of vocabulary questions
- to ensure there are two marks in every content domain to enable teachers to monitor and report progress across the whole Curriculum term on term (except for 2 Spring)
- to provide questions requiring pupils to find evidence from the text to support their answers:
  - In Years 1 and 2 there are 1-mark questions where pupils have to find the evidence for information given.
  - In Years 3 and 4 there are two 2-mark questions that require a comprehension or inference answer coupled with providing the evidence for the answer.
  - In Years 5 and 6 there are two 3-mark questions similar to those in the Key Stage 2 tests, i.e. comprehension or inference questions coupled with providing the evidence for the answer.

Thus, over Years 1 to 6 pupils will be given increasingly challenging practice, preparing them to answer the 3-mark questions of Key Stage 2.

The most important reading measures for children in the early stages of reading are decoding text and making meaning, i.e. literal comprehension, so there is less stress on language, structure and presentation in Key Stage 1. The bulk of the questions in the Reception and Key Stage 1 tests focus on:

retrieving and sequencing information

with additional questions to assess progress in:

- phonics (Reception only)
- vocabulary
- inference and prediction.

As pupils continue to develop as readers across Key Stage 2, use of inference becomes more important along with the other content domains, as illustrated in Table 1.1 (page 8).

Content domain		1α/ 2α	1b/ 2b	1c/ 2c	1d/ 2d	1e/ 2e	2f	2g	2h		
Year	Term	Vocabulary	Comprehension	Summary	Inference	Prediction	Structure	Impact	Comparison	Total	Extension question marks
1	Au	2	10	3	8	2				25	
1	Sp	3	11	2	7	2				25	
1	Su	3	8	3	9	2				25	
2	Au	4	9	2	7	3				25	
2	Sp	4	16	2	7	1				30	5
2	Su	6	11	2	9	2				30	5
3	Au	6	8	4	9	2	5	3	3	40	
3	Sp	6	9	4	9	3	5	2	2	40	
3	Su	5	8	6	10	2	4	3	2	40	
4	Au	4	11	3	8	2	6	4	2	40	
4	Sp	6	9	5	10	2	4	2	2	40	
4	Su	4	8	4	13	2	2	5	2	40	
5	Au	6	10	1	12	3	4	6	3	45	5
5	Sp	6	11	2	15	3	2	2	4	45	5
5	Su	8	12	5	12	2	2	2	2	45	5
6	Au	6	10	2	16	2	2	4	3	45	5
6	Sp	6	13	2	15	2	2	3	2	45	5
6	Su	9	11	1	11	4	3	3	3	45	5

Table 1.1: New PiRA tests analysed to show marks in each content domain across Key Stages 1 and 2

The Key Stage 2 *New PiRA* tests provide a profile of all the core skills that underpin progress in reading, enabling you to focus your attention on supporting your pupils as they develop the most important skills for reading.

#### Why use New PiRA?

Using New PiRA provides many benefits. Firstly, New PiRA gives reliable summative information. For example:

New PiRA uniquely provides three carefully designed tests for each term in each year (except Reception, which has no autumn test) to enable you to follow the progress of your pupils from term to term, as well as from year to year, throughout primary school.



- New PiRA test scores provide an empirical basis from which to set appropriate and meaningful targets for your pupils.
- Scores have been calibrated onto the Hodder Scale, an independent progress measure, to allow you to see small increments of progress from term to term and year to year and to compare progress against national norms. The Hodder Scale was developed to provide a decimal scale and has proven to be an extremely useful measure to monitor and estimate small increments of progress in future terms, up to the end of Year 6.
- New PiRA tests can provide you with an external reference for all intermediate stages (ends of terms as well as ends of years) so that you may report your value-added term by term, as well as monitoring to ensure pupils are on target.
- We have standardised the tests with pupils from the appropriate year cohort and the one year older cohort, so we are able to give empirically based reading ages that reach up to 12 months over the normal age range for a class.

*New PiRA* also has a **diagnostic capability**. It allows you to investigate the strengths and areas for development of your pupils' reading skills. To enable you to use the information gained in this formative way, total scores on the tests can be broken down into distinct aspects of reading, giving an incredibly valuable **profile** that reflects the categories of the National Curriculum 2014. This provides you with the clearest possible picture of which aspects of reading may need further attention. The number of marks available in each domain is provided in Table 1.1 (page 8).

Once you have marked the tests, you can choose whether to enter your results into MARK, which will analyse everything for you, or use this *Test Guidance* to analyse the results yourself. We are increasingly encouraging schools to register on MARK and save time. Access to MARK is included at no extra charge when you purchase our tests.

The strands used in New PiRA are:

- 1a/2a Vocabulary
- 1b/2b Comprehension
- 1c/2c Summary
- 1d/2d Inference
- 1e/2e Prediction
- 2f Structure
- 2g Impact
- 2h Comparison

The above strands are provided as content domain codes in the mark schemes and test booklets and in a summary table on the front cover of each test booklet. You can use the results from *New PiRA's* diagnostic capability to identify strengths and needs in particular areas of learning and use that information to pinpoint key areas for intervention. The intervention programme *Shine* allows you to focus support on individual areas for development.

The balance of the content domains assessed by the questions changes as the tests become more demanding, helping to pinpoint pupils' progress and alert teachers to areas in which pupils may be underperforming. *New PiRA* also systematically assesses pupils' reading of different text types or genres – fiction, various forms of non-fiction, poetry and playscripts – in line with national guidelines across the primary phase.

You can also examine the performance of pupils on **each question**. The percentage of pupils that answered each question correctly in the national standardisation, which is called the **facility value**, is shown in the mark schemes. Facilities enable you to compare the performance of your own pupils with the performance of those in the national sample.

*New PiRA* will help you answer parents, governors, inspectors or headteachers who ask any of the following questions:

- How has my child done compared to others of his or her age or year group?
- What pattern of performance do pupils at a particular level achieve and how does my child (or their class) compare to this?
- Has this pupil made good progress from year to year?
- > What would be a reasonable level of achievement for this pupil next term?
- What are the strengths or successes of this pupil (or class)?
- What individual and class targets are appropriate and realistic?
- On what aspects of reading should this pupil focus to maximise progress?
- What would constitute good, average or poor progress for this pupil (or class)?
- What is my child's reading age?
- > If my child did a reading intervention last term, how did this impact on their performance in this term's test?
- What Hodder Scale score is this pupil predicted in Year 6?
- What scaled score might this pupil get at Key Stage 2?

This *Test Guidance* document contains all the information you need to obtain standardised scores, agestandardised scores, percentiles, reading ages and a score on the Hodder Scale, together with a profile of performance across the various domains and text types and information as to whether a pupil is likely to achieve the 'working at' or 'working at greater depth' performance indicators. Altogether, the various scores provide a wealth of information that will support you in managing learning in your classroom and will provide evidence to support a 'deep dive' into your reading curriculum. This *Test Guidance* also contains the complete technical details obtained from the standardisation trials of autumn 2019, spring 2020 and summer 2021.

#### Monitoring and predicting progress using New PiRA

*New PiRA* provides a standardised assessment of a pupil's reading attainment. The following five distinct measures can be obtained from *New PiRA* to inform you of the progress of each pupil, class and cohort:

- > a standardised score, which gives an individual pupil's score relative to the year cohort
- an age-standardised score, which takes into account a pupil's chronological age so that you can see how a pupil's performance compares with other pupils of the same age
- a reading age for a quick at-a-glance reference
- a score on the Hodder Scale for easy monitoring of pupils' progress
- > performance indicators, summarising relative attainment term on term.

The use of each of these scores is explained more fully in Chapter 4 Obtaining and interpreting test scores (page 32).

The *New PiRA* test results have been statistically linked from term to term and year to year to show a clear set of information, enabling you to monitor strengths and areas for development and to track and estimate progress through the whole primary phase. The information in this *Test Guidance* enables you to monitor and compare in detail individual patterns of performance against the norms and patterns for the term or year.

Underpinning all this is the Hodder Scale, which acts as a common 'spine' on which all of the *New PiRA* tests across the whole primary phase are plotted. It provides the statistical basis for *estimating* pupil progress and future attainment, based on the termly performance data of over 10,000 pupils nationally. The Hodder Scale, as a fixed reference point, has the virtue of being a secure standard with a proven history. It is directly related to the raw scores of the cohort in *New PiRA* and does not take age into account.

Teachers can use the results from a *New PiRA* test, the Hodder Scale, age-standardised scores and standardised score information to provide clear evidence of how well pupils are progressing with their reading from term to term.

#### Reading demand: progression in New PiRA

The tests for each term have been carefully written to ensure there is a steady progression in the demand of both the reading extracts and the questions. In all years, the autumn tests will be the easiest and summer the hardest. This means that each test is at the appropriate level for the specified term - as pupils progress and develop through the year, they will be able to read and understand reading texts of increasing demand. The fact that each test is pitched at the appropriate level is evidenced by facilities for each test of between 50% and 65% (with the exception of Reception), i.e. on average pupils are able to achieve a bit higher than half marks.

Within each test, the first text is generally more accessible than the others so that most pupils should be able to access at least the first text and the majority of pupils have the opportunity to build confidence as they progress to harder texts.

The autumn term tests are designed to be similar in demand to the previous summer term's test, to enable you to see if there has been any 'fall back' in performance over the summer. A mark-for-mark 'raw score' comparison gives a helpful rule-of-thumb comparator to check, but reference to standardised scores and the Hodder Scale is more accurate.

To help teachers monitor the progress of their pupils from term to term and year to year and to provide an effective way of describing and monitoring progress, we have matched *New PiRA* results to our triedand-tested Hodder Scale.

The full Hodder Scale runs from 0-6+ but, for ease of reference, we have conflated the scale into three categories to help describe the demand of the questions in *New PiRA*.

	Total	25	25	25	25	25	25	30	30	40	40	40	40	40	40	45	45	45	45	45	45
	high 6																				-
	mid 6																				-
	low 6																			٦	2
	high 5																		٦	2	-
	mid 5															2	2	ε	2	2	2
	low 5														~	2	ſ	4	4	5	7
	high 4												~	-	4	4	4	9	8	5	ъ
	mid 4												2	ъ	2	4	ъ	6	10	12	13
put	low 4										ſ	Ŋ	ъ	4	9	7	10	10	6	5	4
Hodder Scale of Demand	high 3								2	4	ſ	9	9	4	Ŋ	10	6	ъ	4	9	Υ
cale of	mid 3							2	4	ß	6	6	6	12	11	∞	7	m	ŝ	5	4
dder S	low 3							ſ	4	9	∞	11	7	ъ	ß	4	m	ъ	4	2	2
Ho	high 2						-	4	9	7	9	9	9	9	4	4	2				
	mid 2			-	m	m	4	∞	7	∞	m	-	4	m	2						
	low 2			m	ß	ъ	9	6	4	ß	4	-									
	high 1		-	ъ	4	6	9	2	2	ſ	ſ	-									
	mid 1	2	7	7	7	9	Ŋ	2	1	2	-										
	low 1	Ŀ	9	6	9	2	m														
	ELG	6	ъ																		
	Reception	4	m																		
	3–4 years	Ŋ	m																		
		R Sp	R Su	1 Au	1 Sp	1 Su	2 Au	2 Sp	2 Su	3 Au	3 Sp	3 Su	4 Au	4 Sp	4 Su	5 Au	5 Sp	5 Su	6 Au	6 Sp	6 Su

Table 1.2: New PiRA tests analysed to show marks in each range of demand

For the Hodder Scale, the first number shows the year group of the text (e.g. 3.0 is Year 3; 0.0 is Reception) and the number after the decimal point allows us to offer a finer progression:

- ▶ Low covers the range .0–.2 for each number on the scale (for example, 1.0–1.2, 2.0–2.2).
- ▶ Mid covers the range .3–.6 for each number on the scale.
- **High** covers the range .7–.9 for each number on the scale.

We have called this conflated scale the Hodder Scale of Demand. In the mark schemes, we have provided the facility for each question, which is the percentage success of the pupils who took part in the standardisation. We have used facilities with our professional judgement to categorise questions into low, mid and high within the Hodder Scale to form the Hodder Scale of Demand. Following the introduction of the National Curriculum Programme of Study and expectations for each year (or pairs of years), we are aware that teachers need a straightforward source of information to judge if a test is at the appropriate level of demand to assess a class or a pupil for the term within a particular year. Table 1.2 (page 12) provides a clearly set out source of such information.

The Standards and Testing Agency has published an exemplification of national standards for the Early Years Foundation Stage (EYFS) as well as performance descriptors for Key Stage 1 and Key Stage 2 in the test frameworks, to give teachers guidelines against which to measure pupils at the end of Years R, 2 and 6.<sup>1</sup> We have categorised every *New PiRA* question, shown in Table 1.1 (page 8), and taken the facilities into consideration as well as our own professional judgement, to generate the balance of demand indicated in Table 1.2 (page 12). This information should help teachers select tests that may be more appropriate for less or more able pupils who would find the test for the particular term too hard or too easy.

#### Phonics in New PiRA

In Key Stage 1, pupils whose phonic knowledge is secure at the expected level should be able to read the majority of the texts independently. The phonic progression for Reception and Year 1 is cumulative and the main *Letters and Sounds* phases are as shown in the tables below.

In Reception and some of Year 1, many of the questions are read aloud by an adult. This should prevent the language of the question being a barrier to the pupil showing they understand the text they have read.

The *New PiRA* tests in Reception and Year 1 have been written to take into account children's progression in phonics. In each test, there are three texts which place a gradually increased demand on children's decoding skills to allow all children to demonstrate what they have learned. The easiest text in each test draws on phonic knowledge that will have been introduced in previous terms.

<sup>&</sup>lt;sup>1</sup>https://www.gov.uk/government/organisations/standards-and-testing-agency

#### Reception

In Reception, all texts and question stems are read aloud to the pupils (full details on back cover of tests). The first text in each test explores children's knowledge of early reading skills (e.g. letter-sound relationship, matching words, reading from left to right, listening comprehension of sentences, building and reading CVC words). If children are challenged by these activities, there is no need for them to progress to the next text.

In each test, the children listen to the second and third texts before they try to answer the questions. The texts are well supported by pictures and the questions relate to information directly shared in the text. Phonic knowledge needed by children to read the text and answer the questions is identified below.

#### Spring

<b>Text 1</b> (Letters and Sounds phase 2)	<b>Text 2</b> (Letters and Sounds phase 2) As before plus:	<b>Text 3</b> (Letters and Sounds phase 2/3) As before plus:
<ul> <li>Letters of the alphabet</li> <li>Non-decodable words: the</li> </ul>	<ul> <li>Building CVC words</li> <li>Digraphs: <i>ff, ll,</i> ck</li> </ul>	<ul> <li>Digraphs: ng, th, ee, oo (short), oo (long), er</li> <li>Adjacent consonants: mp, sw, gr</li> <li>Non-decodable words: me, to, have, playing, happy, story</li> </ul>

#### Summer

<b>Text 1</b> (Letters and Sounds phase 2)	<b>Text 2</b> (Letters and Sounds phase 2/3) As before plus:	<b>Text 3</b> (Letters and Sounds phase 3/4) As before plus:
► Letters of the alphabet	<ul> <li>Digraphs: th, nk, ee, ar, or</li> <li>Non-decodable words: the, my, me, you</li> </ul>	<ul> <li>Digraphs and trigraphs: ck, sh, ch, ee, oa, oo (short) ur, er, ow, air</li> <li>Adjacent consonants: cr, dr, st, nd</li> </ul>

#### Year 1

Tests progress gradually from the Reception tests. Phonic knowledge needed to read the autumn terms' test is likely to be revision from Reception.

It is harder to gauge the order in which graphemes are introduced in Year 1, because different phonics programmes use a different order, but *New PiRA* has been designed to use only the more commonly taught long vowel graphemes and common exception words in order to work alongside the majority of programmes. Full details of phonics knowledge needed to read the texts and questions is given below.

#### Autumn

All question stems are read aloud to pupils (full details on back cover of tests).

<b>Text 1</b> (Letters and Sounds phase 3/4)	<b>Text 2</b> (Letters and Sounds phase 3/4) As before plus:	<b>Text 3</b> (Letters and Sounds phase 3/4) As before plus:
<ul> <li>Digraphs and trigraphs: sh, ck, ng, ee, oa, ar, or, ow, igh, ear</li> <li>Adjacent consonants: nd, tr, mp, nt, nch</li> <li>Non-decodable words: you, me, my, the</li> </ul>	<ul> <li>Digraphs and trigraphs: bb, gg, ll, ch</li> <li>Adjacent consonants: sl, cr</li> <li>Non-decodable words: go, to, away, lays, out, have, happy</li> </ul>	<ul> <li>Digraphs and trigraphs: th, ai, oo (long), air</li> <li>Adjacent consonants: st, bl, tch</li> <li>Non-decodable words: he, was, do, like, liked, some, said, put, dry, home</li> </ul>

#### Spring

Text 1 (text and question stems are read aloud) (Letters and Sounds phase 4)	<b>Text 2</b> As before plus: (Letters and Sounds phase 5a)	<b>Text 3</b> As before plus: (Letters and Sounds phase 5)
<ul> <li>Digraphs and trigraphs: ck, wh, ay, ee, i-e, ue, oe, oa, ir, aw</li> <li>Adjacent consonants: bl, cl, gr, nk, nt, st</li> <li>Non-decodable words: my, to, the, colour</li> </ul>	<ul> <li>Digraphs and trigraphs: th, ai, ay, e-e, i-e, oo (long) ar, or, oy</li> <li>Alternative pronunciations: ow (show), y (happy)</li> <li>Non-decodable words: said, no, do, you, are, her, called, they, because, want, be, move</li> <li>Question words: what, why, write, answer</li> </ul>	<ul> <li>Digraphs and trigraphs: ph, wr, a-e, ea, i-e, u-e, ou</li> <li>Non-decodable words: have, their, giraffes, tongues, live, two, word</li> <li>Question words: where, circle, word, above</li> </ul>



#### Summer

Text 1 (the first four questions are read aloud) Letters and Sounds Phase 5a	<b>Text 2</b> Letters and Sounds phase 5 As before plus:	<b>Text 3</b> Letters and Sounds phase 5 As before plus:
<ul> <li>Digraphs and trigraphs: a-e, ay, ee, i-e, ue, er, aw</li> <li>Alternative pronunciations: ow (flower, yellow), i (child)</li> <li>Non-decodable words: are, come, one, does, other, colours</li> <li>Question words: what, answer</li> </ul>	<ul> <li>Digraphs and trigraphs: <i>ai</i>, <i>ar</i>, <i>ew</i>, <i>ou</i>, <i>ow</i> (<i>brown</i>), <i>oi</i></li> <li>Alternative pronunciations: <i>y</i> (<i>reply</i>, <i>loudly</i>), <i>a</i> (<i>fast</i>), <i>ear</i> (<i>heard</i>)</li> <li>Non-decodable words: <i>could</i>, <i>said</i>, <i>anything</i>, <i>some</i>, <i>was</i>, <i>saw</i>, <i>friend</i>, <i>were</i></li> <li>Question words: <i>why</i>, <i>draw</i>, <i>circle</i></li> </ul>	<ul> <li>Digraphs and trigraphs: ea, uy, or, ore, oo (long), er, ur, or, ire, ou</li> <li>Alternative pronunciations: y (very), ear (early), or (works)</li> <li>Non-decodable words: people, who</li> <li>Question words: find, copy, who</li> </ul>

#### Who can you assess using New PiRA?

The spread of demand of the tests – as shown in Table 1.2 (page 12) – allows you to use each test with wide-ability groups – including weaker readers – and allows all pupils to experience some success.

Very poor readers may benefit from taking tests intended for earlier terms or years, where they are more likely to experience success and be able to demonstrate what they know and understand, rather than struggling with texts that are too demanding for them. (A number of schools adopt this policy.) Table 1.2 (page 12) shows the pattern of demand of each test and our assessment maps (see page 6) indicate which book band would be an equivalent level to each test. You can use both pieces of information to select a test that should allow the poorer reader some success and yet still meet some questions that will challenge them. In a similar way, able pupils following an accelerated pathway may take tests intended for older age groups, which will provide evidence of them working at greater depth as they will meet more advanced texts and harder questions.

Please note that it may not be possible to obtain an age-standardised score or percentile when the tests are used in this way, if the pupil is outside the chronological age range of the conversion table for the test used. However, you may be able to get a reading age and will be able to get a Hodder Scale score.

## 2 Administering New PiRA tests

#### When to test

The *New PiRA* tests should ideally be used just before the end of the relevant term: as they were standardised toward the end of each term, this will give the most dependable data. However, in practice, whether you use the tests just after half-term or at the very end of the term is unlikely to be of critical importance. Testing soon after half-term is often helpful as it provides objective information for the pupil-progress meetings and data-collection points most schools have around half-term and allows time for interventions to build on identified areas for development. *New PiRA* provides the most useful information if it is used termly. However, if necessary, it can be used just once every year.

#### Group size

You can administer the tests to whole classes or large groups if you feel comfortable doing so. However, with Reception pupils, Key Stage 1 pupils and weaker Year 3 pupils, tests may be better if carried out in small groups of pupils of similar ability so that pauses can be taken if required, with teaching assistants also delivering the test. In Reception and Year 1, it is permissible and often advisable to administer the tests in three sessions with breaks (one text in each session), but this should not normally be necessary in subsequent years.

In the standardisation for these year groups, some teachers found it more effective to work with small groups – say five or six pupils of similar ability – so that a break could be taken if required. From Year 4 upwards, whole classes may be tested together, unless one or more pupils are very weak readers – in which case, support from a teaching assistant may be helpful, to work closely with an individual or with a small group of pupils of similar ability.

#### Timing

The time taken for the Reception and Year 1 tests is controlled by the pace of delivery and whether the tests is split into separate sessions, but we recommend a maximum time of **40 minutes**. We recommend a maximum time of **40 minutes** for Year 2, **45 minutes** for Years 3 and 4 and **55 minutes** for Years 5 and 6, unless a pupil is a particularly slow or hesitant reader or has a reader to assist them.

In practice, informed by the standardisation trials, pupils should be able to complete the test in less than the recommended time unless they are particularly hesitant or slow workers, in which case extra time may be allowed so that they can show what they can do. If you have pupils who are likely to use exam access arrangements for their Key Stage 2 national tests you should administer *New PiRA* using the access arrangements but make a note of the access arrangements used and the pupil's response.

#### Preparation

Each pupil will need the appropriate test booklet, a pencil or pen, an eraser and a ruler. Answers may be altered by crossing or rubbing out.

All of the tests for Reception, Year 1 and Year 2 use questions that are 'embedded' after short sections of reading material, wherever possible on the same page spread, so that pupils are not required to hunt through the text for answers.

Some questions are read aloud by the teacher to the pupils. Where relevant, a teacher's script is provided on the back cover of the test booklet.

#### Administering the test

Give each pupil a test booklet. Ask them to write their names on the front cover, or this may be done for them in Reception and Key Stage 1. Tell pupils how long they have to complete the test. If any pupils are uncertain about what they have to do, you may give some additional explanation to help them understand the requirements of the test, but do not help with the content of the questions.

If pupils are unfamiliar with testing, you may wish to talk through what they need to do in the test. Points to cover include the following:

- Pupils will be reading three extracts (short stories, poems or non-fiction texts) and answering questions about them.
- In Reception, Year 1 and the beginning of Year 2, the first few questions are read aloud you are advised to do this for the autumn tests in particular. Pupils should read everything else themselves.
- In Years 3 to 6, pupils should gently pull out the centre pages as these form a separate reading booklet.
- There is a range of question types: some require written answers, some numbers, some circling/ticking, some matching answers with lines. Tell pupils that they need to follow the instructions in questions carefully, e.g. 'Draw four lines ...' and 'Number the events 1 to 4.'
- > Pupils should work through the test booklet answering as many questions as they can.
- If pupils can't answer a question, they should move on to the next one and come back to that question later if they have time.
- If pupils have a problem, they can ask for help.
- ▶ If pupils finish the test early, they should check their work.

If the results are to be reliable, it is important that the pupils work alone, without copying from each other or discussing their answers. Remind pupils of this if necessary.

Where questions are to be read aloud by an adult, the general guideline is that all questions and instructions to be read aloud are printed in colour, in a different, smaller font. Text and questions for the pupils to read themselves are printed in black. In Reception, the teacher's script for the phonics questions is printed on the back cover of the test booklet.

#### Teacher scripts for Reception and Key Stage 1

The transcripts below should be used with the appropriate tests.

#### Reception Spring

Pages 2–3 of the test contain no written instructions. These are given below for you to read aloud, so that all pupils get the same experience and support for the phonics element of the assessment. You should also introduce and read aloud the stories on pages 4 and 6.

In addition to the stories, you should read aloud all of the instructions and questions in dark blue, but *not* the answer options in the larger black font. You may re-read the script, but do not change or rephrase the wording, as it will affect the level of demand of the question.

Before the test, explain to the pupils what the term 'circle' means.

The teacher's script for the phonics questions, on pages 2–3, is provided on the back page of the test booklet and is reproduced below.

(Instructions for the teacher are given in *italics*.)

No.	Question									
1	<i>Say</i> : sausages, puppy, cat, sun. Join the <b>two</b> things that begin with the same sound, as I read the words again. Sausages,									
2	This is a teddy. Draw a circle round the <b>beginning</b> sound.									
3	Which <b>two</b> words are the same? Join the words with a line.									
4 (α)	I'm going to read the sentence. Draw circles round the pictures of the <b>two</b> animals in the sentence.									
(b)	I'm going to read the sentence again. This time, circle the word that I read first, at the <b>beginning</b> of the sentence.									
5	<i>Say</i> : peg, hen, leg, hand. <i>Tell them</i> : Join the <b>two</b> words that <b>rhyme</b> , as I read the words again. Peg,									
6	I'm going to read some of the sentence. I want you to point at the words when I read them and circle the <b>last</b> word I say. Read one word at a time, clearly. Stop reading at the word ' <b>going</b> ' but use the intonation you would use if you were finishing the sentence.									
7	I want you to read the sentence, then draw a circle round the <b>best</b> picture for the sentence.									
8	Here is the alphabet. Circle the letters for the sounds [ <b>e</b> ], as in 'get' and [ <b>p</b> ], as in 'put'. Now listen as I read a story. <i>Read it only once</i> .									

#### **Reception Summer**

Pages 2–3 of the test contain no written instructions. These are given below for you to read aloud, so that all pupils get the same experience and support for the phonics element of the assessment. You should also introduce and read aloud the stories on pages 4–5.

In addition to the stories on pages 4–5, you should read aloud all of the instructions and questions printed in dark blue on pages 4–7 but *not* the answer options in the larger black font *or* the stories on pages 6–7.

You may re-read the script, but do not change or rephrase the wording as it will affect the level of demand of the question.

Before the test, explain to the pupils what the terms 'circle' and 'underline' mean.

The teacher's script for the phonics questions, on pages 2–3, is provided on the back page of the test and is reproduced below. (Instructions for the teacher are given in *italics*.)

No.	Question
1	<i>Point at the pictures as you say their names. Say</i> : Draw a circle round the sound at the <b>beginning</b> of each word.
2	Listen while I say some sounds. Draw a circle round the picture of the word I'm saying: <b>f-i-sh</b> .
3	<i>Point at the pictures as you say their names</i> : hen, hat, egg, pen. <i>Say</i> : Join 'hen' to a rhyming word.
4 (α)	I'm going to read the sentence: Here is my very special treasure chest. Circle the <b>first</b> word I read.
(b)	Now listen while I read it again. I'm going to stop and not read it all. I want you to underline the <b>last</b> word I read. <i>Read as far as 'special</i> '.
5	I'm going to read the sentence: Please will you help me brush my Draw a circle round the picture for the <b>next</b> word in the sentence.
6	<i>Point at the pictures as you say their names</i> : egg, fish, sock, elephant. <i>Say</i> : Join the pictures of <b>two</b> words that <b>begin</b> with the same sound.
7	I'm going to read the sentence: I had a drink of milk and a banana. Circle <b>two</b> pictures that go with this sentence.
8	I'm going to read the sentence, and I'm going to say the word ' <b>like</b> ' twice. Circle the word 'like' both times you see and hear it: I like tigers and I like lions <i>too.</i> Now tell the pupils to turn over and point to the words while you read the story aloud to them.

#### 1 Autumn

There is a practice question to help introduce New PiRA testing to the pupils.

The teacher script for the practice question, on page 2, is provided on the back page of the test booklet and is also reproduced below.

(Instructions for the teacher are given in *italics*.)

Practice question

Name the two pictures: orange and banana.

*Tell the pupils:* Draw lines to join the pictures to their words below. There are some extra words.

Read aloud the poem on page 2. Also read aloud all instructions for answering questions that are printed in dark blue. Do *not* read aloud anything that is printed in black except for the poem on page 2.

#### 1 Spring

Read aloud all instructions for answering questions (printed in dark blue on pages 2–4), but do *not* read the texts or answer choices printed in black, except where indicated below.

Before the test, explain what the term '**circle**' means and write the word '**answer**' on a board so pupils will recognise it.

Read aloud the poem on page 2 and questions 1–3 on pages 2–3 once. If pupils ask for help, you may read questions 4–7 on page 3 as well.

#### 1 Summer

Read aloud all instructions for answering questions (printed in dark blue on pages 2–3), but do *not* read out the texts or answer choices printed in black, except where indicated below.

Before the test, explain what the term '**circle**' means and write the word '**answer**' on a board so pupils will recognise it.

Read out the poem on page 2 and questions 1–3 on page 2 once. If pupils ask for help, teachers may read questions 4–7 on page 3 as well.

#### 2 Autumn

On pages 2–3, introduce but do *not* read out the poem or any answer choices.

Read aloud the instructions for the first nine questions, printed in dark blue. Do *not* read out the text printed in black or questions 10–23.

#### 2 Spring

Read aloud the instructions above the poem and the first three questions (printed in dark blue) on pages 2–3, but do *not* read out the poem itself or questions 4–7 about the poem.

Do not read out the other texts or questions on pages 4-8.

#### 2 Summer

Read aloud questions 1–5 on pages 2–3, but do *not* read out the playscript, questions 6–8 or the answer options.

Do not read out the other texts or questions on pages 5–10.

## 3 Marking and analysing New PiRA

Once the pupils have completed the test, their answers can be marked using the answers and mark schemes found online in MARK.

#### Marking the answers

- Mark boxes in the right-hand margins of each test booklet indicate where a mark can be gained. We recommend writing '1' or '0' in these mark boxes to indicate if the answer gains the mark or not.
- Some questions have more than one part, or attract more than one mark, so you should follow the mark scheme carefully, using your professional judgement if necessary. For example, any clear indication of the answer is acceptable irrespective of what was asked for, e.g. a tick or a circle.
- Please use your professional judgement when marking, recognising that pupils often write more words than the brief, crisp answers given in the mark scheme. Answers do not need to be written in sentences.
- > Capital letters are not required unless specifically stated in the mark scheme.
- > Do not penalise spelling: as long as the correct meaning is clear, always award the mark.
- For scores to be valid, you should *not* award half marks.

#### Finding the total raw score

To help with marking and collating the data, page totals may be recorded at the bottom-right corner of each page of the test booklet. Simply add up the ticks (or 1s) on a page and write the page total in the box. You can then sum the page scores to find the pupil's total raw score and record this on the front cover of the test booklet.

#### Profiling performance by content domain (or strand)

Codes alongside each mark box in the test booklet allow you to collate the pupil's performance against the Curriculum strands and build a picture of each pupil's performance that will enable you to follow progress, measure the value-added and provide a set of validated data for comparison in future years. We are increasingly encouraging schools to input scores into MARK for automatic profiling and reporting, but you can also use this *Test Guidance* to analyse results yourself.

If you use this *Test Guidance* to analyse results yourself, the code letters shown for each mark box may be used to profile the pupil's performance by content domain. Total the number of correct answers the pupil has obtained in each content domain (e.g. 1a, 1b, 1c, 1d, 1e) and make a note of these domain scores in the boxes on the front cover of the test booklet. Average performance against the five content domains of the Key Stage 1 National Curriculum and the eight content domains of the Key Stage 2 National Curriculum is included below each mark scheme and may be used to provide detailed comparisons of the performance of individual pupils and classes.

Bar charts showing the number of marks in each content domain are provided on the record sheets on pages 25–31. On each bar the tint shows the average performance of the standardisation sample in that content domain or strand, so that you can compare the performance of a pupil or a class against the average. These bar charts are often helpful to show strengths and areas to improve when discussing the test results with parents or pupils. Following the mark scheme for each test, the 'Analysis of performance by content domain (or strand)' table also allows you to analyse your pupils' performance by content domain compared to the national averages.

#### Using MARK for online analysis and reports

Once you have marked the tests, you can choose whether to enter your results into MARK, our online analysis and reporting service, which will analyse everything for you. Alternatively, you can use this *Test Guidance* to analyse results yourself. We are increasingly encouraging schools to register on MARK and save time. Access to MARK is included at no extra charge when you purchase our tests.

MARK is the powerful online platform that helps teachers to get more from *New PiRA* and other assessments published by RS Assessment from Hodder Education. To unlock your access to online analysis and reports within MARK go to www.risingstars-uk.com/mark. Detailed user guides and help to get started can be found at https://help.hoddereducation.co.uk/hc/en-gb/categories/360000257678-MARK.

If you have used the paper tests you can record the marks that your pupils have scored at question level. This can be done either by importing a .csv file containing their results, or by manually entering their scores via the online marksheets. Once entered, the total raw score and all other measures are automatically calculated for every pupil and, where appropriate, aggregated for groups of pupils.

On the 'Questions' tab of the marksheet you can view the facility value of each question and the average score of all the pupils who are in the class or group – allowing a quick on-screen view of which questions the class as a whole did well on or struggled with.

On the 'Strands' tab you can see the pupils' performance in each strand, allowing a quick overview of how each pupil is performing by strand.

The 'Gap Analysis Export' allows you to export a .csv file for a class or group, with question-level marks and a summary of performance at strand and test level. You can also use the 'Gap Analysis – School Export' on the 'Marksheets and Gap Analysis' page to export a gap analysis for a whole school as a .xlsx file.

You can generate a range of reports on-screen or as PDF files to analyse the performance of individual pupils, groups and classes.

From MARK you can access two *Shine* reports: the Individual Intervention Report and the Group Intervention Report. These reports are designed specifically to identify gaps in knowledge in the Areas of Learning covered by each test. Each of these reports includes access to *Shine* learning sequences. These offer new texts and questions each term to give pupils additional input and experience in answering questions and are intended as a booster intervention for pupils whose performance in some content domains is lower than the expected standard. For each term, there are two or three texts and a choice of three intervention pathways:

- Retrieval (covering content domains 1b and 1c / 2b, 2c, 2f and 2h)
- Vocabulary (covering content domains 1a / 2a and 2g)
- Inference (covering content domains 1d, 1e / 2d, 2e)

For more information about Shine, please visit risingstars-uk.com/shine.

#### Using the test booklets and Test Guidance tables

#### Completing the test booklet cover

The covers of the test booklets allow teachers to record and summarise marks for easy reference. The following are included:

- Boy/Girl: to allow for analysis of scores by gender
- Test date
- Date of birth
- Chronological age: this should be in completed years and months based on the child's date of birth and the test date, to allow an age-standardised score to be calculated
- Content domains (strands in the Reception papers): these can be totalled as the test booklet is marked and used to quickly identify how pupils have performed on each content domain
- Scores: use this *Test Guidance* to obtain scores manually (see below).

#### Obtaining scores using this Test Guidance

Scores can be generated using the tables in Chapter 6 Standardised score tables (page 61). Refer to the appropriate tables to obtain the standardised score, age-standardised score, reading age and Hodder Scale score for each pupil. You can then enter each pupil's scores on the front of the test booklet.

Do be aware though that each of these measurement scales in *New PiRA* provides independent information and at times there will be differences between them, as they are generated using different methods. When they do give differing information, this alerts teachers to investigate further, as it may be that a pupil has inconsistent performance and that this is affecting the analyses.

#### Interpreting the results

*New PiRA* tests are termly and are designed to be used alongside teacher judgement. They are designed to provide a regular check of pupils' learning, to highlight at regular intervals what they know and can do and to identify which areas of the Curriculum may be in need of intervention and extra support or targeted teaching.

You can use the *New PiRA* tests as one piece of evidence in making your termly judgements about each pupil's learning in relation to the Programme of Study for reading. By their very nature, *New PiRA* tests, like other tests, assess a sample of the content of the Curriculum only – this can be seen by reviewing the assessment maps (see page 6). In addition, certain areas of the Programme of Study cannot be assessed in a written test. For these reasons, we recommend strongly that you include other evidence, such as teacher-assessed work and tests used throughout the year, to contribute to your overall judgement of each pupil's learning at the end of the year.



Pupil name: \_



Note: Each bar shows the total number of available in marks in each content domain. The tints show the standardisation average scores rounded to whole marks.

Comp comprehension; Rfm reading for meaning; Phon phonics



Pupil name: \_



Note: Each bar shows the total number of available in marks in each content domain. The tints show the standardisation average scores rounded to whole marks. As the standardisation average score for 1e in 1 Spring was less than 0.5 and would have rounded down to 0, this score is included as 0.5 here.

1a vocabulary; 1b comprehension, 1c summary; 1d inference; 1e prediction

*Photocopiable resource:* this record sheet may be photocopied within the purchasing institution. Copyright © 2021 Hodder and Stoughton Ltd.



Pupil name: \_



Note: Each bar shows the total number of available in marks in each content domain. The tints show the standardisation average scores rounded to whole marks.

1a vocabulary; 1b comprehension, 1c summary; 1d inference; 1e prediction



Pupil name: \_



Note: Each bar shows the total number of available in marks in each content domain. The tints show the standardisation average scores rounded to whole marks. As the standardisation average score for 2h in 3 Autumn was less than 0.5 and would have rounded down to 0, this score is included as 0.5 here.

2a vocabulary; 2b comprehension, 2c summary; 2d inference; 2e prediction; 2f structure; 2g impact; 2h comparison

*Photocopiable resource:* this record sheet may be photocopied within the purchasing institution. Copyright © 2021 Hodder and Stoughton Ltd.



Pupil name: \_



Note: Each bar shows the total number of available in marks in each content domain. The tints show the standardisation average scores rounded to whole marks. As the standardisation average score to 2 decimal places for 2g in 4 Spring was less than 0.5 and would have rounded down to 0, this score is included as 0.5 here.

2a vocabulary; 2b comprehension, 2c summary; 2d inference; 2e prediction; 2f structure; 2g impact; 2h comparison



Pupil name: \_



Note: Each bar shows the total number of available in marks in each content domain. The tints show the standardisation average scores rounded to whole marks. As the standardisation average scores to 2 decimal places for 2c in 5 Autumn and 2g in 5 Summer were less than 0.5 and would have rounded down to 0, these scores is included as 0.5 here.

2a vocabulary; 2b comprehension, 2c summary; 2d inference; 2e prediction; 2f structure; 2g impact; 2h comparison



Pupil name: \_



Note: Each bar shows the total number of available in marks in each content domain. The tints show the standardisation average scores rounded to whole marks. As the standardisation average score for 2h in 6 Spring was less than 0.5 and would have rounded down to 0, this score is included as 0.5 here.

2a vocabulary; 2b comprehension, 2c summary; 2d inference; 2e prediction; 2f structure; 2g impact; 2h comparison

*Photocopiable resource:* this record sheet may be photocopied within the purchasing institution. Copyright © 2021 Hodder and Stoughton Ltd.

# 4 Obtaining and interpreting test scores

#### Summative measures

#### Average raw scores

A pupil's raw score is their total mark on a particular test. As an overview, you can evaluate how well a pupil has done by comparing their raw score to those in Table 4.1 (see below). This shows average raw scores for each *New PiRA* test by term and gender. You may also compare your class average raw scores to these averages.

		Autumn			Spring		Summer			
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
PiRA R				16.0	17.5	16.7	17.2	17.7	17.4	
PiRA 1	14.4	15.4	14.9	12.1	13.5	12.8	15.9	17.6	16.7	
PiRA 2	14.6	15.2	14.9	17.3	16.9	17.1	15.4	16.5	16.0	
PiRA 3	21.3	22.1	21.7	21.8	23.6	22.7	22.1	22.1	22.1	
PiRA 4	18.8	20.1	19.4	24.6	25.3	25.0	20.2	22.3	21.3	
PiRA 5	23.1	24.3	23.7	23.1	25.6	24.4	22.5	24.5	23.5	
PiRA 6	26.3	29.1	27.6	22.6	24.8	23.6	25.4	27.8	26.6	

Table 4.1: Average raw scores for each test by term and gender in the standardisation

#### Test outcomes

In addition to raw scores, the results obtained from *New PiRA* will also enable you to report pupil performance in terms of the following measures:

- Standardised score (see conversion tables in Chapter 6 (from page 61)
- Age-standardised score (see conversion tables in Chapter 6 (from page 81)
- Reading age (Table 4.4 on pages 36–38)
- Hodder Scale score (Table 4.5 on pages 42–5)
- Performance indicators (see page 46)

#### Standardised scores, age-standardised scores and confidence bands

Both types of standardised score obtained from *New PiRA* are standardised to a mean score of 100, immediately showing whether a pupil is above or below average as compared to *New PiRA's* national standardisation sample.

Age-standardised scores take into account a pupil's age so that you can see how a pupil's test performance compares with other pupils *of the same age,* whereas standardised scores are for a year cohort and do not take age into account.

Older pupils are likely to obtain *higher raw scores* than younger pupils, but could still gain *lower age-standardised scores* because these take account of and adjust for maturation. Using age-standardised

scores for comparing summative performance, rather than standardised scores, has the advantage of enabling you to rank pupils in order of achievement after age has been accounted for.

Standardised scores and age-standardised scores can both be averaged to give an indication of the general attainment level of a class or even a whole intake. This is especially helpful when exploring value-added, since schools with a very weak intake will be able to demonstrate where their pupils are making good progress.

By definition, age-standardised scores suggest that older pupils in a year group will do better than younger pupils. In most tests that span a number of years, this is indeed the case, as age and experience do matter. However, since the *New PiRA* tests are written for each individual year group, our initial research found that age was not strongly correlated with performance. This is not surprising, as the pupils will all be receiving a fairly common experience based on national guidelines, so progress is likely to be more reflective of innate ability and the quality of teaching, support and practice at school and at home. Therefore, to provide age differentiation in the standardisation, all pupils in Years 2–6 took two tests – that of their year group and that of the one-year-younger year group. The majority of tests were therefore taken by a cohort spanning two years, apart from the Reception test (as Year 1 pupils did not take two tests) and the Year 6 test (as there was no higher year within primary to take part in the standardisation). In upper Key Stage 1 in particular, older pupils in the year groups may have *higher raw scores* than younger pupils, but could have *lower age-standardised scores*.

In Years 5 and 6, since teaching is likely to have a significant if not a greater impact on achievement than the chronological age and maturation of the child, standardised scores are of greater use than age-standardised scores. Schools using our tests have told us that in Year 6, as the national tests do not take into account the age in months of a child, standardised scores were of much greater use than age-standardised scores. The Year 6 test was taken by a cohort spanning one year, and so for the data gathered in the standardisation trials we did not observe significant age-based differentiation. In preparation for the national tests, we advise schools to use standardised scores in Year 6.

Please note that age-standardised and standardised scores are quite different measures and are calculated differently. (For example, if a class includes a significant number of younger pupils, then an older pupil could have a high standardised score, but a lower age-standardised score.) Therefore, it is not appropriate to relate a pupil's age-standardised score to their standardised score.

MARK automatically generates standardised scores and age-standardised scores for each test. To obtain standardised scores using this *Test Guidance*, you will need the pupil's raw score and then refer to the look-up tables in Chapter 6 (page 61). To obtain age-standardised scores, first calculate the pupil's chronological age in years and completed months and then refer to the conversion tables in Chapter 6 (page 61). Record the scores on the front of the test booklet.

The standardised and age-standardised scores provided in Chapter 6 (page 61) and shown in summary in Table 4.2 (page 34) range between 70 and 130, with a mean of 100 and a standard deviation (SD) of 15. The SD tells you how spread out the scores are from the mean.

Using the SD and the 'normal distribution' of scores, pupils can be grouped by performance into bands. Figure 4.1 (page 34) illustrates this grouping:

- Average refers to those whose performance is within one SD either side of the mean, i.e. 85–115.
- Below average and above average refer to those who are between one and two SDs either side of the mean, i.e. 70–84 and 116–130.



**Figure 4.1:** The normal distribution curve showing standard deviations, standardised/ age-standardised scores and percentiles

For many teachers, the term *average*, based on one SD either side of the mean, is too wide a band, so they prefer the *higher average* and *lower average* bands that are also shown on Figure 4.1 (above) and in Table 4.2 (below).

#### Percentiles

Percentiles can help to give you a feel for the significance of a pupil's score on a test, because they show the percentage in each age group who score below a certain level. So, an age-standardised score at the 68th percentile means that 68% of the group scored below that particular pupil's age-standardised score. Thus, the pupil is in the top third for their age group.

Percentile scores may be derived from age-standardised scores or standardised scores. The relationship between age-standardised scores and percentiles is most easily seen by reference to Figure 4.1 (above).

Standardised score	Qualitative interpretation of standardised scores	Standard deviation from mean	Percentile score	Percentage of normal population
>130	Excellent	>+2	>98	2.27
116–130	Above average	+1 to +2	86–98	13.59
110–115 85–115 85–90	Higher average Average/age-appropriate Lower average	-1 to +1	16–85	68.26
70–84	Below average	-2 to -1	2–15	13.59
<70	Very weak	<-2	<2	2.27

 Table 4.2: Relationship between standardised/age-standardised test scores and qualitative interpretations

Age-standardised score	Percentile	Age-standardised score Percentile Age-standardised score		Percentile	
≥130	≥98	108	70	89	24
128–129	97	107	68	88	22
126–127	96	106	66	87	20
125	95	105	63	86	18
123–124	94	104	60	85	16
122	93	103	58	84	14
121	92	102	55	83	13
120	91	101	52	82	12
119	90	100	50	81	11
118	89	99	48	80	9
117	87	98	45	79	8
116	86	97	42	78	7
115	84	96	40	76–77	6
114	82	95	37	75	5
113	80	94	34 <b>73–74</b>		4
112	78	93	32	71–72	3
111	77	92	30	70	2
110	74	91	28	<70	1
109	72	90	26		

Table 4.3: Conversion of age-standardised scores to percentiles

To obtain a pupil's percentile, first obtain their age-standardised score using the conversion tables in Chapter 6 (page 61), then refer to Table 4.3 (above) to obtain the percentile. Percentiles may be obtained from standardised scores in exactly the same way as for age-standardised scores.

#### Confidence bands

To suggest that one pupil is performing better than another and to place pupils in order of merit, you must be confident that the score obtained on the test is a 'true' score – a true reflection of ability. A genuinely true score is always unknown because no test can be constructed to provide a perfect reflection of a person's ability. Therefore, tests often use confidence bands for each score to tell you how confident you can be that the score is a 'true' score.

The *New PiRA* tests use a 90% (or 95%) confidence band, which means that you can be 90% (or 95%) confident that a pupil's 'true' score lies within the confidence band. For example, for an age-standardised score of 106, if the confidence band is plus 6 and minus 6, you can be 90% confident that the pupil's 'true' score is between 100 and 112. The confidence bands are found in Tables 5.6–5.12 on pages 56–59. This spread is lower than for many tests and indicative of the high reliability and face validity of the *New PiRA* tests.

#### Reading ages

Many teachers use reading age as a quick reference. A reading age shows the average chronological age of the pupils who obtained each particular raw score, i.e. the chronological age at which this level of performance is typical (the age associated with the mark that gives an age-standardised score of 100). Reading ages are obtained from the age-standardised score data. For more detailed comparative information and especially for tracking progress over time, age-standardised scores or standardised scores and percentiles are preferable for the reasons outlined in the previous sections.

Note that *New PiRA* reading ages are provided for ages beyond the normal age range for a given year group. These have been generated because all tests apart from Year 6 and Reception were taken by two consecutive year groups in the standardisation and we also undertook statistical extrapolations – at the higher age range for Reception and at the lower age range for all other years. The lower age extrapolations ensure the youngest pupils in a year may obtain an age-standardised score if the test is used as a baseline for that term. Such extrapolations can be especially useful in interpreting the performance of weaker readers who have been given a test for a younger age range.

MARK automatically generates reading ages for each test. To obtain a reading age using this *Test Guidance*, first calculate the pupil's chronological age in years and completed months and then refer to the conversion tables in Chapter 6 (page 61). Record the scores on the front of the test booklet. Table 4.4 (below and pages 37–38) show collated reading ages for each test.

Raw	Reading age						Raw		
score	R Spring	R Summer	1 Autumn	1 Spring	1 Summer	2 Autumn	2 Spring	2 Summer	
1–9	10 11 12 <4:07 13 14		<5:01	<5:05	<5:08	<6:01	<6:05	<6:08	1–9
10				5:05					10
11				5:07					11
12		<4:08	5:01	5:08					12
13			5:03	5:10		6:01			13
14			5:04	6:00		6:03		6:08	14
15			5:06	6:03	5:08	6:05		6:10	15
16	4:07	4:08	5:09	6:05	5:10	6:08	6:05	7:02	16
17	4:09	4:10	5:11	6:07	6:00	6:10	6:07	7:04	17
18	5:03	5:02	6:02	6:10	6:03	7:01	6:10	7:07	18
19	5:09	5:06	6:04	7:00	6:06	7:04	7:01	7:10	19
20	>5:09	6:00	6:07	7:03	6:09	7:06	7:04	8:00	20
21		6:06	6:09	7:05	7:00	7:09	7:07	8:03	21
22		6:10	6:11	7:07	7:03	8:00	7:10	8:06	22
23		7:02	7:02	5 >7:07	7:05	8:02	8:01	8:08	23
24		>6:10	7:05		7:08	8:06	8:04	8:10	24
25			>7:05		7:10	>8:06	8:07		25
26					. 0.07	>8:10	26		
27–30							>8:07		27–30

Table 4.4a: Reading ages for each term in Reception and Key Stage 1
Raw			Readir	ng age			Raw
score	3 Autumn	3 Spring	3 Summer	4 Autumn	4 Spring	4 Summer	score
1–14				<8:01			1–14
15				NO.U I			15
16	<7:01		<7:08	8:01		<8:08	16
17		<7:05	\$7.00	8:03			17
18				8:04	<8:05		18
19	7:01			8:07	×0.05	8:08	19
20	7:03		7:08	8:09		8:10	20
21	7:04	7:05	7:10	8:11		9:00	21
22	7:07	7:08	8:00	9:01		9:02	22
23	7:09	7:10	8:03	9:03		9:05	23
24	7:11	8:01	8:06	9:05	8:05	9:08	24
25	8:02	8:04	8:09	9:07	8:06	9:10	25
26	8:04	8:07	9:00	9:10	8:09	10:01	26
27	8:06	8:10	9:03	10:00	9:00	10:03	27
28	8:09	9:01	9:07	10:03	9:03	10:06	28
29	8:11	9:03	9:09		9:07	10:08	29
30	9:02	9:05	9:11		9:10	10:10	30
31		9: 07			10:01		31
32				>10:03 10:04		32	
33	>9:02	>9:07	>9:11		10:07	>10:10	33
34		- 5.07			\$10.07		34
35–40					>10:07		35–40

Table 4.4b: Reading ages for each term in Key Stage 2

Raw							Raw
score	5 Autumn	5 Spring	5 Summer	6 Autumn	6 Spring	6 Summer	score
1–14							1–14
15							15
16	<9:01						16
17	\$9.01		<9:08				17
18		<9:03	<10:03 <10:0	(10.00	18		
19				< 10:08	19		
20	9:01			<9:11			20
21	9:03			9:08			21
22	9:04		9:08				22
23	9:06	9:03	9:11		10:03		23
24	9:08	9:06	10:02		10:06	10:08	24
25	9:10	9:10	10:05		10:09	10:10	25
26	10:00	10:03	10:08	9:11	11:00	11:00	26
27	10:02	10:08	10:11	10:01	11:03	11:02	27
28	10:04	11:00	11:02	10:04	11:07	11:05	28
29	10:06	11:07	11:05	10:07	12:01	11:07	29
30	10:08		11:08	10:10	12:02	11:09	30
31	10:10		11:10	11:01		11:11	31
32	11:00	>11:07		11:05		12:02	32
33	11:03		11.10	11:09	>12:02		33
34	\$11.02		>11:10	12:00		>12:02	34
35–45	>11:03			>12:00			35–45

Table 4.4b (cont.): Reading ages for each term in Key Stage 2

#### Hodder Scale scores

MARK automatically generates Hodder Scale scores for each test. You can also refer to the conversion tables in Chapter 6 (page 61). This standardised scale is provided as a decimal scale from 0 to 6 and allows you to monitor small increments of pupils' progress. It is also useful if the pupil falls outside the chronological age range of the age-standardised score table for the test used, because you may still obtain a score on the Hodder Scale.

A real strength of the Hodder Scale is its ability to estimate progress from term to term and year to year so that both long and short-term targets are available for teachers to discuss with pupils, parents and colleagues.

## Diagnostic and formative interpretation

Summative measures are valuable to provide an overall picture of the pupil's performance relative to their peers, but it is important to look beyond the scores themselves when analysing test data. The data may suggest, for example, that the pupil is doing well for their age or against the cohort and this may indicate that no intervention strategy is required. However, a more detailed check may show, for example, that good literal comprehension reading accuracy is masking a weakness in inference.

## Use the New PiRA profile to look for patterns of strengths and areas for development

Every pupil has particular strengths and areas for development across the Curriculum that will show up in the *New PiRA* profile on their individual pupil report and gap analysis export in MARK. When you are marking, you can see at which point there is a change from mostly correct to mostly incorrect answers and at what level of demand this is occurring. This may alert you to generally weak achievement or perhaps to weakness (or strength) in one specific aspect of reading. For example, this may highlight aspects of literacy which have previously been taught but which have been forgotten or were not understood at the time. It should be borne in mind when undertaking this form of analysis that performance will naturally reflect recent teaching. The data in this *Test Guidance* and in MARK allow you to see where an individual pupil's performance differs from the average performance of their class or group, i.e. where their performance is atypical.

#### Check a pupil's performance on a specific question

You may also go one stage further and compare how a particular pupil has performed relative to other pupils in the same year group on specific questions. The **facility** column in the mark schemes shows the percentage of the pupils in the national sample that answered each question correctly: a facility of 60% shows that 60% of pupils in the national sample answered the question correctly. At the end of each mark scheme is a table showing overall percentages obtained from the national sample.

If you wish, you can also average your pupils' scores to create an overall *class* or *cohort* average. The pattern revealed may inform both teaching and target-setting, as it will highlight the reading skills in which pupils are secure or confident and those that need to be addressed.

#### Obtaining patterns and indications of performance

While *New PiRA Interactive* automates the ability to pinpoint areas of strengths and areas for development, the same automated analysis of patterns of performance is available for pupils taking the pencil-and-paper version of the tests. The online analysis and reports in MARK make it easier to automatically pinpoint areas of strength and need. You can monitor progress in the strands and, to track pupil progress term by term, the Hodder Scale provides estimations of future performance and an opportunity to monitor against previous performance.

## Reporting progress using the Hodder Scale

In developing the original *PiRA* tests, seven cohorts of more than 1,000 pupils each, totalling just under 8,000 pupils, were tracked termly over three terms. Using this information and optional and Key Stage test data, as well as teacher assessment, it was possible to link pupil performance from term to term and year to year. Identifying patterns in this way provides a firm basis on which to estimate future performance and establish expectations. An equating procedure using common questions from each edition was undertaken for this new edition, enabling us to reference the marks from this edition back through the marks from the previous edition and hence provide an updated relationship to the Hodder Scale.

The Hodder Scale score is the most useful monitoring scale, as it shows a decimalised measure of progress and enables teachers to monitor progress term by term, enabling you to estimate pupils' future performance and measure whether current progress is what would have been expected. The tables from page 61 onward provide, for each test, a complete set of reference data for reporting progress in terms of Hodder Scale score. Read across from the pupil's raw score on a particular test to the Hodder Scale score. Record this score on the front of the test booklet. Then read across to the predicted Hodder Scale score which will give the score the pupil should achieve in the next term.

## Estimating future performance with the Hodder Scale

You may wish to set targets for the future and monitor progress over a term or year. This is possible for both individual pupils and whole classes, by drawing on the average performance data of close to 1,400 pupils in each year group, from term to term and across all the years, in the standardisation sample.

The questions in the tests for each term cover the range of demand appropriate to the year and term (see Table 1.2, page 12). As the tests have been designed to challenge the pupils around the level at which they are expected to be working, you may find that pupils obtain similar *raw scores* (and standardised/age-standardised scores) from term to term but that their *level of performance*, as shown by the Hodder Scale score, will continue to increase. Across Key Stage 1 and Key Stage 2, expected progress is usually about one (low/mid/high) Hodder Scale score every term. Some pupils do better than this, others less well.

For example, a pupil who starts Key Stage 2 with a Hodder Scale score of mid 2 on *2 Summer* and who makes average progress might be expected to have a Hodder Scale score of 3.1 on *3 Summer*, 3.8 on *4 Summer* and ultimately to gain a mid 5 in Year 6. In practice, of course, no pupil is 'average' and progress is rarely completely smooth. In addition, the further ahead one is looking, the more tentative are the estimations one can make (see below). The Hodder Scale, however, does provide a well-founded, empirically-based statistical basis for making estimations about performance which can then be modified in the light of actual progress.

Monitoring the difference between the actual Hodder Scale score and the predicted average Hodder Scale score enables you to see whether able pupils increasingly diverge from estimated progress and how weaker pupils progress against average progress. The Hodder Scale runs across all school years, so progress can be monitored from Reception into Key Stage 1 and on into Key Stage 2. To obtain a pupil's predicted Hodder Scale score, either use the tables from page 61 onward (read across from the Hodder Scale score to the predicted Hodder Scale score) or Table 4.5 on pages 42–45 (read across from the score in one term to the predicted score in the following term).

The Hodder Scale was originally created in 2010 and used alongside levels applied in schools at the time. Following the end of levels<sup>1</sup> Hodder maintained this scale to provide a continuing reference point for incremental steps of progress: it was believed then – and is still believed now – to provide a consistent, empirically based and unchanging scale by which schools may reference how pupils and cohorts have progressed over the years since its inception. As the scale remains fixed, schools are able to see that pupils often do better term-on-term than the scale estimates. We celebrate this because it demonstrates the improvement in teaching and learning through the various government-led initiatives and recognises the dedication of primary school teachers.

One way to explore this cohort improvement against the standard of the Hodder Scale is to compare the predicted Hodder Scale score from one term to the next and at the same time follow similar standardised score progressions and notice the Hodder Scale score associated with this standardised score. In almost all cases we can see the improvement of the cohort in this standardisation, as shown by the standardised score comparison. We therefore alert teachers to the fact that the Hodder Scale prediction is a cautious estimation and many pupils will do better than this (unless they are at the very top of the scale for that year).

<sup>&</sup>lt;sup>1</sup>When the first edition of *PiRA* was developed and published in 2010, the Hodder Scale was created to provide a link to the nationally used scale of progress called 'levels'. It linked the marks in each test to the level of a pupil using the old National Curriculum levels that stretched from zero to the top of level 10 in secondary schools. The Qualifications and Curriculum Authority used whole number levels or subdivided them into a/b/c. The scale we developed broke each level into ten, i.e. it decimalised the levels and was built by statistically using the marks of primary pupils in 2009/10 linked to their Key Stage 1 and Key Stage 2 test levels, their optional test levels and teacher assessed levels as appropriate for each term.

pira

		A	verage Hodd	ler Scale scor	e		
R Spring	R Summer	1 Autumn	1 Spring	1 Summer	2 Autumn	2 Spring	2 Summer
					0.8	1.1	1.9
				<1.0	0.9	1.2	2.0
						1.3	2.1
	0.0	<0.3	0.3	1.0	1.1	1.4	2.1
0.0	<0.1	<0.3	0.3	1.0	1.1	1.4	2.1
	0.1	<0.3	0.3	1.0	1.1	1.4	2.1
	0.2	0.3	0.5	1.0	1.1	1.4	2.1
						1.5-1.6	2.2
0.1	0.3	0.4	0.7	1.1	1.2	1.7	2.2
		0.5	0.8	1.1	1.2	1.7	2.2
	0.4	0.6	0.9	1.2	1.3	1.8	2.3
0.2	0.5	0.7	1.0	1.2	1.3	1.8	2.3
0.3	0.6	0.7	1.0	1.2	1.3	1.8	2.3
				1.3	1.4	1.8	2.3
0.4	0.7	0.8	1.1	1.4	1.5	1.9	2.3
0.5	0.8	0.8	1.1	1.4	1.5	1.9	2.3
0.6	0.9	0.9	1.2	1.4	1.5	1.9	2.3
0.7	0.9	0.9	1.2	1.4	1.5	1.9	2.3
				1.5	1.6	2.0	2.4
				1.7	1.7	2.1	2.4
0.8	1.0	1.0	1.3	1.8	1.8	2.2	2.5
0.9	1.1	1.1	1.4	1.9	1.9	2.2	2.5
	1.2	1.2	1.5	2.0	2.0	2.3	2.5
	1.3	1.3	1.5	2.0	2.0	2.3	2.5
			1.6	2.1	2.1	2.4	2.6
					2.2	2.5	2.7
		1.4	1.7	2.2	2.3	2.5	2.7
			1.8	2.2	2.3	2.5	2.7
						2.6	2.7
		1.5	1.9	2.3	2.4	2.7	2.8
						2.9	2.9
						3.0	3.1
			2.0	2.4	2.5	3.1	3.2
		1.6	2.1	2.4	2.5	3.1	3.2
			2.2	2.4	2.5	3.1	3.2
		1.7	2.3	2.4	2.5	3.1	3.2
			2.4	2.5	2.5	3.1	3.2
			2.5	2.5	2.5	3.1	3.2
			2.6	2.6	2.6	3.2	3.3
			2.7	2.7	2.7	3.3	3.4
						3.4	3.4

**Table 4.5a:** Monitoring and predicting progress on a term-by-term basis YR–Y2 If there is no Hodder Scale score for that term, this is because this score does not relate to a mark in the test. pira

		Averag	je Hodder Scal	e score		
2 Summer	3 Autumn	3 Spring	3 Summer	4 Autumn	4 Spring	4 Summer
					<1.9	<2.3
			1.4-1.5	1.6	1.9	2.3
			1.7	1.8	2.1	2.4
			1.9	2.0	2.2	2.6
			2.0	2.1	2.3	2.8
		1.4-1.5	2.1	2.2	2.4	2.9
		1.6	2.2	2.3	2.6	3.1
	1.1	1.7	2.2	2.3	2.6	3.1
	1.2	1.8	2.3	2.4	2.7	3.2
1.2	1.4	1.9	2.4	2.5	2.8	3.2
1.5	1.6	1.9	2.4	2.5	2.8	3.2
1.8	1.8	2.0	2.5	2.6	2.9	3.3
				2.7	2.9	3.3
1.9-2.0	2.0	2.1	2.6	2.8	3.0	3.4
2.1	2.1	2.1	2.6	2.8	3.0	3.4
2.2	2.2	2.2	2.7	2.9	3.1	3.5
2.3	2.3	2.3	2.8	2.9	3.1	3.5
2.4	2.4	2.4	2.9	3.0	3.2	3.7
	2.5	2.5	3.0	3.1	3.2	3.7
2.5	2.6	2.6	3.1	3.2	3.3	3.9
		2.7	3.2	3.3	3.4	3.9
2.6	2.7	2.8	3.3	3.4	3.6	3.9
2.7	2.8	2.8	3.3	3.4	3.6	3.9
2.8	2.9	2.9	3.4	3.6	3.6	3.9
		3.0	3.5	3.7	3.7	4.0
					3.8	4.1
2.9-3.0	3.0	3.1	3.6	3.8	3.9	4.2
3.1	3.1	3.2	3.7	3.9	4.0	4.3
		3.3	3.7	3.9	4.0	4.3
					4.1	4.4
				4.1	4.3	4.5
3.2	3.2	3.4	3.8	4.2	4.4	4.6
3.3	3.3	3.6	3.9	4.3	4.6	4.7
3.4	3.4	3.7	4.0	4.3	4.6	4.7
3.5	3.5	3.8	4.0	4.3	4.6	4.7
			4.1	4.5	4.6	4.7
3.6	3.6	3.9	4.3	4.6	4.7	4.7
	3.7	4.0	4.3	4.6	4.7	4.7
	3.8	4.1	4.3	4.6	4.7	4.7
	3.9	4.2	4.4	4.6	4.7	4.7
		4.3	4.5	4.7	4.7	4.7
			4.7	4.7	4.7	4.7
			4.8	4.8	4.8	4.8
				4.9	4.9	4.9
				5.0	5.0	5.0
				5.0	5.1	5.2

Table 4.5b: Monitoring and predicting progress on a term-by-term basis Y2–Y4

If there is no Hodder Scale score for that term, this is because this score does not relate to a mark in the test.

pira

		Averag	je Hodder Scal	e score		
4 Summer	5 Autumn	5 Spring	5 Summer	6 Autumn	6 Spring	6 Summer
				2.0-2.1	2.4	3.3
					2.6	3.6
				2.3	2.8	3.7
				2.4	2.9	3.9
			2.0	2.5	3.0	3.9
			2.4	2.6	3.0	3.9
		<1.9	<2.5	2.6	3.0	3.9
			2.5	2.7	3.1	4.0
			2.6	2.8	3.2	4.1
					3.4-3.5	4.2
		1.9-2.1	2.8	3.0	3.6	4.3
			2.9	3.2	3.7	4.4
1.8-2.0	2.1	2.2	3.0	3.2	3.7	4.4
			3.1	3.3	3.7	4.4
				3.4	3.8	4.5
2.1	2.2	2.4	3.2	3.5	3.8	4.5
				3.6	3.8	4.5
2.2-2.3	2.3	2.6	3.3	3.7	3.9	4.7
		2.7	3.4	3.7	3.9	4.7
			3.5	3.8	4.0	4.8
2.4-2.5	2.5	2.8	3.6	3.9	4.0	4.8
			3.7	4.0	4.1	4.9
2.6	2.6	2.9	3.8	4.1	4.2	4.9
2.7	2.7	2.9	3.8	4.1	4.2	4.9
2.8	2.8	2.9	3.8	4.1	4.2	4.9
2.9	2.9	3.0	3.8	4.1	4.2	4.9
				4.2	4.3	5.0
3.0	3.0	3.2	3.9	4.3	4.4	5.0
					4.5	5.1
3.1	3.1	3.3	4.0	4.5	4.7	5.1
3.2	3.2	3.4	4.1	4.6	4.7	5.1
3.3	3.3	3.4	4.1	4.6	4.7	5.1
3.4	3.4	3.4	4.1	4.6	4.7	5.1
		3.5	4.1	4.6	4.7	5.1
		3.6-3.7	4.2	4.7	4.8	5.1
3.5	3.5	3.8	4.2	4.7	4.8	5.1
3.6	3.6	3.9	4.3	4.8	4.9	5.2
3.7	3.7	3.9	4.3	4.8	4.9	5.2
			4.4	4.9	5.0	5.3
				5.0	5.1	5.4
3.8	3.8	4.0	4.5	5.1	5.2	5.4

Table 4.5c: Monitoring and predicting progress on a term-by-term basis Y4–Y6

If there is no Hodder Scale score for that term, this is because this score does not relate to a mark in the test.

		Averag	je Hodder Scal	e score		
4 Summer	5 Autumn	5 Spring	5 Summer	6 Autumn	6 Spring	6 Summer
3.9	3.9	4.1	4.6	5.2	5.3	5.5
4.0	4.0	4.1	4.6	5.2	5.3	5.5
4.1	4.1	4.2	4.7	5.3	5.3	5.5
4.2	4.2	4.3	4.7	5.3	5.3	5.5
					5.4	5.5
				5.4	5.5	5.5
4.3	4.3	4.4	4.9	5.5	5.6	5.6
4.4	4.4	4.5	5.0	5.5	5.6	5.6
4.5	4.5	4.6	5.1	5.6	5.7	5.7
4.6	4.6	4.7	5.2	5.7	5.8	5.9
4.7	4.7	4.8	5.2	5.7	5.8	5.9
4.8	4.8	4.8	5.2	5.7	5.8	5.9
4.9	4.9	4.9	5.3	5.7	5.8	5.9
5.0	5.0	5.0	5.4	5.7	5.8	5.9
		5.1	5.5	5.7	5.8	5.9
	5.1	5.2	5.5	5.7	5.8	5.9
5.1	5.2	5.3	5.6	5.7	5.8	5.9
		5.4	5.7	5.7	5.8	5.9
5.2-5.3	5.3	5.5	5.7	5.7	5.8	5.9
		5.6	5.7	5.7	5.8	5.9
		5.7	5.8	5.8	5.9	6.0
					5.9	6.0
					6.0	6.1
			5.9	5.9	6.1	6.2
			6.0	6.0	6.1	6.2
					6.2	6.3

Table 4.5c (cont): Monitoring and predicting progress on a term-by-term basis Y4–Y6

If there is no Hodder Scale score for that term, this is because this score does not relate to a mark in the test.

## Relating New PiRA 6 test scores to the national standard

As the 2020 national tests were not taken, we have been unable to carry out a detailed statistical analysis of the relationship between the results from the *New PiRA* tests for Year 6 and the scaled scores of the national tests. We will undertake this analysis following the next sitting of the national tests, and once national tests data is available, and the comparison will be added to this section of the *Test Guidance* once available. We thank you for your patience and understanding in these unprecedented circumstances.

Understanding the difference between standardised scores as used in *New PiRA* and the national test scaled scores

The underlying principle behind all standardised scores is that test scores follow a normal distribution (as shown in Figure 4.1 (page 34). The mean (or average) is 100 and the standard deviation is 15, so about two-thirds (68%) of scores in a standardised test lie between 85 and 115.

A scaled score of 100 or more on the national tests represents the expected standard in each Key Stage test. It is the pass mark in unofficial language. This 100 is *not* the mean or average score for the national cohort and is nothing to do with standardised scores.

The lowest scaled score that can be awarded on a Key Stage 2 test is 80 and the highest is 120. In 2016 around two-thirds or more of pupils reached the expected standard in each Key Stage test, so their marks were linked to the 100 to 120 range. Performance in 2019 was better with around 74% reaching the 100 scaled score.

## Performance indicators

Performance indicators allow you to estimate the likelihood of success in the national tests with a high degree of accuracy. They reflect where pupils, groups, classes and schools are in relation to other schools, term on term. We have developed these performance indicator bands to provide you with information about relative performance each term.

We have used a wide range of evidence to identify where each performance indicator band should fall for *New PiRA*, taking into account any performance changes due to disruptions. The data used as evidence includes:

- the standardisation trial data from autumn 2019, spring 2020 and summer 2021;
- > anonymous, aggregated data from MARK from 2020 and 2021 testing for both old and New PiRA;
- the equated raw scores showing what pupils taking the new editions would have achieved on the old editions.

The following performance indicators can be used for any *New PiRA* autumn, spring and summer term test results in your school.

Performance indicator	Standardised score				
	Reception and Key Stage 1	Key Stage 2			
Working towards	<89	<93			
Working at	89–111	93–113			
Working at greater depth	>111	>113			

These performance indicator bands may be used for tests in each term to measure if a child is on track to achieve an expected standard at the end of the year and to aggregate performance for groups, classes and years. These performance indicators are available as part of the MARK reports.

If a child achieves the 'working at greater depth' performance indicator band in a test, they won't necessarily be predicted 'working at greater depth' in the next test. This is because the Hodder Scale score table is based on actual pupil performance and this pattern shows that children with similar performances sometimes fall below the 'working at greater depth' band on the next test. This seems to be prevalent for autumn to spring predictions. In autumn there is recap of the previous year's curriculum, whereas the spring test will have more questions covering the current year's curriculum. There may also be more questions at greater depth within the spring curriculum, meaning that the spring test provides a greater challenge.

## **Case studies**

The following scenarios are shared to illustrate how the outcomes from *New PiRA* could be used to aid teacher planning and positively impact pupil progress. We thank the staff at Riverside Primary School for their contribution.

#### 1 – Alex (Year 1)

Alex is a summer-born child. He struggled to achieve ARE in reading and writing at the end of Reception: he enjoyed phonics and managed well in linking sounds and letters, but his attitude to learning was poor and he was reluctant to pick up a book, so he was still 'emerging' in reading. He wasn't mature enough to take the Reception spring term test and only completed the first eight of the Reception summer term questions.

By autumn half-term in Year 1, he had begun to settle down and we decided to let him work as part of a small group to do the Year 1 autumn test.

He scored 100 per cent for the first part of the test, where the text and questions stems were read aloud. This was encouraging as it confirmed to us that his decoding skills are developing well but he lacks reading stamina and the maturity and confidence to persevere. He had given up by the end of page 7. So, although we could celebrate the fact that he had managed to sit as part of a group for the duration of the test, and engaged with it for about 15 minutes, it was nonetheless the case that he still needed a lot of adult mediation to refocus him.

Without waiting to see if there was a reason for this behaviour, we decided to try an early intervention strategy to make sure that his good grounding in phonics was being used to enable him to gain pleasure from his reading. At the team meeting, we decided to:

- use the Shine reading intervention to improve his confidence, model approaches to answering questions and increase opportunities for independent working;
- continue to develop his knowledge of phonics within Phase 5 (Letters and Sounds) this was a clear strength on which to build;
- change him to a reading scheme that is entirely decodable, in order that he would be confident in reading the words, so we could focus teaching on making meaning;

- meet with his parents to explain why he was on this new reading scheme, in order that they could support our work by talking about books with him;
- in individual and guided reading sessions, focus on asking him questions that can be answered through information in the text, rather than in the pictures;
- > increase opportunities for games and activities that require him to read and match pictures and captions.

Our target for Alex in the *New PiRA 1 Summer* test was full marks on the phonics and close to the national average marks in other areas.

To our great pleasure, he achieved these outcomes on the Hodder Scale:

1 Autumn actual	1 Spring predicted	1 Spring actual	1 Summer predicted	1 Summer actual
0.6	0.9	1.1	1.4	1.7

Tracking and analysing Alex's progress from Reception to Year 1 with *New PiRA* was instrumental in ensuring that we put in a targeted intervention early and prevented a reading problem from building up. In retrospect, it seems likely that his lack of early progress in reading was probably due to immaturity. However, if we had done nothing, his early reluctance to read would probably have persisted into Year 1 and beyond. As it was, we were able to be strategic in the time and intervention we put in place, and a potentially disengaged child has become a keen reader.

#### 2 – Callum (Year 2)

Callum is a Year 2 pupil who was teacher assessed at the end of Foundation as being 'emerging' for reading. During Year 1, he made excellent progress with phonics and became very confident with blending and appeared to be a skilful reader. Based on this we predicted that Callum would be reported as 'working at' the expected standard by the end of Year 2, however when he sat *New PiRA 2 Autumn*, he only achieved a standardised score of 88, which is considered to be 'working towards' the expected standard. At the autumn pupil progress meeting, we discussed what the teacher knew of Callum from guided reading, English lessons and crucially we looked at his actual *New PiRA* paper. It became obvious very quickly that he performed very poorly on the questions that specifically tested comprehension. From this discussion, we recognised that we needed to find out whether his specific issue was:

#### a) poor comprehension, or

b) reasonable/good comprehension, but a lack of understanding about how to answer the question properly.

We also decided for the first time to track his progress in the different content domains as in the autumn term, Callum only achieved 2 of the 9 marks available in comprehension. We only did this tracking for Callum initially to see whether the intervention was effective.

The class teacher discovered that while Callum was a competent mechanical reader, his comprehension was poorer than expected. Consequently, we put in place a weekly intervention group for him (and other targeted children from parallel Year 2 classes) to work specifically on comprehension – at first verbally, then later listening to a text and question and then writing, and then later again in the style of *PiRA*, i.e. the pupil reads a text and writes an answer. Alongside this, the teacher also incorporated far more explanation-type questions into as many lessons as possible (Literacy and across the curriculum). For this intervention group, we started by using particular questions from the *New PiRA 1* test papers, because it was easy to look at the pupil paper and find questions that very specifically test comprehension (those listed as 1b in the mark scheme and mark boxes in the paper).

Callum's *New PiRA 2 Spring* results were encouraging – he received a standardised score of 96 putting him comfortably in the 'working at' the expected standard band and he scored 11 out 16 marks available for comprehension. The class teacher was pleased with this progress and a discussion was had about replacing Callum in the intervention group. The teacher felt strongly that with more support and a shift in focus to inference skills, Callum would be able to achieve more. We looked at Callum's inference marks and agreed that he might well benefit from some targeted teaching on this. His summer standardised score was 105 and his teacher now considered him a very solid reader who was securely meeting age-related expectations.

Using New PiRA has been exceedingly helpful for our school for a number of reasons:

- teachers find that standardised scores are a helpful source of information that can inform their teacher assessment;
- we have a reliable set of data that can be tracked and compared across parallel classes and year-toyear;
- we can quickly analyse the raw data to plan the most suitable intervention, e.g. for Callum it was comprehension initially and identifying children from across the year group who would benefit from the intervention for maximum impact;
- we can measure the effectiveness of our interventions.

Now, because of Callum, across the whole school it is our standard practice to track the content domain scores for children in intervention groups.

#### 3 – Amara (Year 4)

Amara started Key Stage 2 working within age-related expectations in some subjects, but her reading and writing did not match her verbal skills. In the summer of Year 3 we assessed her using the *New PiRA 2 Summer* test again, as she could not cope with the *New PiRA 3 Summer* test. We found that she had made little or no progress from Key Stage 1 and actually wondered if she was moving backwards.

In Year 4, we used the *New PiRA 2 Autumn* and *Spring* tests, rather than Year 3 or Year 4 tests, to ensure that she could engage with the reading texts and have the questions on the same page as the reading material. These results confirmed her continued lack of progress in Year 4. At a pupil progress interview at the end of the spring term in Year 4, she was identified as a cause for concern.

We undertook an analysis of her three sets of *New PiRA* results. The pattern shone out when we reviewed her strand performance on her individual pupil report in MARK. The bar chart showed that she was not gaining any of the inferential marks. That surprised us as although Amara is an EAL child, she has been in school since the beginning of Year 2 and her spoken English is fluent and colloquial.

At the pupil progress meeting, we started to think more about the possibility that Amara's command of English may not be as good as it seems. Our strategy was to:

- give her additional time with our EAL Teaching Assistant, with the specific intention of looking at idioms and non-literal uses of English;
- work through some of the Shine Reading Interventions, focusing specifically on the Inference and Vocabulary strands;
- use opportunities in ICT to extend her range of written sentence constructions;
- > introduce a small-group speaking and listening programme to focus on reasoning and explanations;
- use additional opportunities in guided reading to explore her use of inference.

The EAL analysis showed that Amara did indeed have weaknesses in her understanding of more advanced and subtle English. We were able to target the interventions to address those explicitly. The vocabulary strand of the *Shine Reading Intervention* was also very helpful as it allowed us to focus on using context to work out what words mean. Our anecdotal evidence was that, almost week by week, Amara's vocabulary and her confidence in answering inferential questions grew. Her access to the rest of the curriculum also improved, as did her willingness to write. We were pleased then, that the summer term *New PiRA* results were more encouraging, even though she is still taking tests a year behind where her classmates are and there is obviously still more work to do. The *New PiRA* tests were useful in helping us to identify this problem – we should have done so earlier and are reviewing our use of the *New PiRA* analyses for all children in all years.

## 4 – Pippa (Year 5)

When Pippa began Year 5, we had high expectations of her – she was predicted to exceed expectations. However, when she sat the *New PiRA 5 Autumn* test in October, she scored only 18, only just reaching a standardised score of 91. We were confident that the *New PiRA* tests were sound because other children did as expected. We recognised that we needed to look more carefully at Pippa's reading test.

It wasn't hard to see the problem: Pippa hadn't answered most of the questions. We did an analysis of the questions she had answered and examined the facilities in the mark scheme. This offered us two hypotheses: either she stopped working when she was faced with a harder question, or she was an unusually slow worker. The former seemed less likely, as there was no evidence of her being unwilling to attempt things.

We paid closer attention to Pippa's behaviour during guided reading and noted that she didn't contribute much. Occasionally, she would begin to answer a question, then she would fade out and another child would butt in. This had led the teacher to remember that Pippa had participated, but she hadn't picked up that Pippa didn't actually answer any questions.

When we discussed Pippa with our SENCO, she asked whether the problem was reading comprehension or listening comprehension. That made her teacher look more closely at all of Pippa's learning behaviours and she started to become more concerned. Eventually, Pippa was referred to a speech and language therapist and an educational psychologist, both of whom recognised that she had significant difficulties in processing language, whether written or spoken.

As she watched Pippa in guided reading, her teacher also recognised that, in addition to reading slowly, Pippa started re-reading the text from the beginning every time a new question was asked. This was a much easier problem to solve and we gave Pippa some highly focused strategies and experience to maximise the efficiency of her reading comprehension and ways to answer tests.

The effectiveness of this strategy was proven in the spring term, even though Pippa was still slow and needed quite a bit more time than others. She scored 29 marks (with a standardised score of 108), which puts her on track to achieve age-related expectations or better if this rate of improvement continues. We have seen a considerable increase in performance because she was given all the time she needed, as we wanted to see what she could do if she had time.

We are very pleased that *New PiRA* helped us to identify Pippa's specific difficulty, because it gives us time to work with Pippa to minimise the impact of her difficulties. We also know that we can apply for her to have additional time in her national tests and we have evidence, by giving her enough time in the *New PiRA* tests, that the additional time allows her to show what she can do.

#### 5 – Josh (Year 6)

Our school has always used teacher assessment rather than test information to track pupil progress. We used *New PiRA* for the first time last year, when we had some new teachers and realised that we needed something to give us external validation of our teacher assessments.

Josh is in Year 6. We worry about him, because his attitude isn't always good, and his behaviour can be somewhat challenging. His progress, when measured against previous *New PiRA* tests, had been patchy: some terms he made progress, whereas in other terms he appeared to go backwards. This had always puzzled us because teacher assessment showed a smooth progression. We needed to investigate whether the teacher assessment was optimistic or his engagement with tests was inconsistent.

An analysis of Josh's answers in the *New PiRA 6 Autumn* test gave us some useful feedback about our curriculum and approach:

- A key feature we noticed was that Josh gained only one of his marks from the non-fiction text. He had been discreetly observed while doing the test and he seemed just to scan the non-fiction material rather than read it, even though there was no time pressure on him. We realised that we had been focusing almost exclusively on fiction in our teaching over the term. The fact that *New PiRA* tests explore a wide range of texts alerted us to this difficulty.
- Josh made a lot of careless mistakes. He tends to do this in class too but, when we ask him to think more carefully, he can often give good answers. Of course, in a test situation there is no opportunity for this feedback.
- Our observation seemed to indicate that he appeared to lose confidence immediately he found a question he couldn't do, and this meant that he scored badly from that point on until he started the next text.

This analysis helped us understand that the tests were consistent, and the teacher's assessment was accurate. However, it also made us reassess the breadth of texts our children were reading and the way in which we prepare children to take tests. Children need to be able to think carefully without our scaffolding feedback and they need to understand that easier questions can follow harder ones. In order to give Josh more confidence, we have decided to invest in *Shine Reading Intervention* because that is the quickest way to give him - and others - experience of answering questions using fiction, non-fiction and poetry texts. We can also use the *Shine* resources to teach and promote better strategies for answering questions under test conditions.

The SENCO tried Josh out with some coloured reading rulers to see whether light sensitivity might account for the inconsistencies in his test results. She discovered that a very deep rose colour made the 'paper behind the writing stop moving around'. Since Josh has been using this reading ruler, he has made fewer careless mistakes and seems to be more confident at trying more challenging questions.

# **5 Technical information**

# Standardisation sample

In order for us to have confidence in our statistical analyses, it was vital that we had a large enough sample of pupils sitting each test. We aimed for a baseline of over 1,000 completed test booklets for each year group in each term and exceeded this for every year group.

To account for some booklets not being returned or some schools dropping out of the trial, we distributed around 1,500 booklets for each year group across 46 schools. This meant that each school received 30–60 booklets on average for each year group, with the occasional school receiving fewer due to smaller intakes. Pupils in Years 2–6 also took the year below tests in addition to their own, so for each Year 1–5 test we sent out around 3,000 booklets.

Two schools dropped out of the initial sample following the autumn tests, which had been anticipated, but more than 1,200 booklets per year group were still submitted despite this attrition (2,400 booklets in total for tests taken by pupils across a two-year span). The quality of the achieved sample meant that we could be confident that our sample was representative and reliable.

We selected our sample from a broad range of schools, ensuring that the sample was spread across England and ranged from small schools of 66 pupils up to large schools of 594 pupils. The average percentages across the sample of boys/girls eligible for the 2019 Key Stage 2 national tests were 52% boys and 48% girls. We aimed for a sample of schools that was closely representative of primary schools nationally, based on two main criteria: attainment and percentage of pupils classed as disadvantaged. These measurements were based on the *National Curriculum assessments at Key Stage 2 in England, 2019 (revised)* by the Department for Education.<sup>1</sup>

#### Attainment measures

Attainment in the sample ranged from schools with 16% attaining the expected standard in reading, writing and maths at Key Stage 2 to schools with 92% attaining the expected standard. The proportion of pupils in the sample achieving high scores in reading and maths and greater depth in writing ranged from 0% to 27%.

According to the Department for Education's data of December 2019 (see above), 66% of pupils reached the expected standard in reading, writing and mathematics and 11% achieved a high score in reading and mathematics and greater depth in writing in the 2019 Key Stage 2 national tests. Comparably, 66% of pupils in our sample of schools reached the expected standard in reading, writing and mathematics and 10% achieved a high score in reading and mathematics and greater depth in writing in the 2019 Key Stage 2 national tests.

In reading alone, 74% of pupils nationally reached the expected standard and 28% achieved a high score. In our sample schools, 76% reached the expected standard and 27% a high score. The average scaled score for reading nationally in 2019 was 104 and our sample schools' average scaled score in reading was 105.

<sup>&</sup>lt;sup>1</sup>www.gov.uk/government/statistics/national-curriculum-assessments-key-stage-2-2019-revised

#### Disadvantaged measure

The 'disadvantaged' measure was defined as:

Those who were eligible for free school meals in the last six years or are looked after by the local authority for a day or more or who have been adopted from care.

In our sample, the percentage of disadvantaged Key Stage 2 pupils in the schools ranged from 0% to 75%. The mean average percentage of disadvantaged Key Stage 2 pupils in the sample schools was 30%, in line with the national average of 30%.

Overall, therefore, the performance of the schools taking part in the *New PiRA* standardisation was very closely representative of primary schools across the country and gives strong validity to the standardisation. Tables 5.1–5.5 (below) illustrate the profiles of schools involved in the trial.

	Outstanding	Good	Requires improvement
Ofsted Annual Report (2019)	20%	66%	10%
New PiRA sample of schools (2019)	23%	66%	11%

Table 5.1: Overall effectiveness of state-funded schools at their most recent inspection

Number of pupils on roll	≤140	141–210	211–420	421–630
Number of schools in sample	13	11	11	9

Table 5.2: Number of pupils on roll in *New PiRA* sample schools (2019)

% EAL	<5	5–10	11–20	21–30	31–40	41–50	>50
Number of schools in sample	24	8	6	3	1	1	1

**Table 5.3:** Percentage of pupils with English as an Additional Language (EAL) in *New PiRA* sample schools (2019)

% pupils with SEN support	<5	5–10	11–15	16–20	21–30	31–40	>40
Number of schools in sample	0	10	5	10	12	6	1

Table 5.4: Percentage of pupils with special educational needs (SEN) support in *New PiRA* sample schools (2019)

% pupils in receipt of free school meals	≤10	11–20	21–30	31–40	41–50	51–60	>60
Number of schools in sample	8	9	8	6	5	4	4

Table 5.5: Percentage of pupils in receipt of free school meals in *New PiRA* sample schools (2019)

# The impact of Covid on standardisation trialling

The autumn and spring papers were standardised on a nationally representative sample of children in autumn 2019 and spring 2020, and were unaffected by the national lockdown, disruption to schools and subsequent remote learning. However, standardisation of the summer papers was not possible in summer 2020 due to this disruption.

In summer 2021 we undertook a full standardisation of summer papers. Our aim in summer 2021 has been to provide a suite of standardised outcomes for the summer papers as they would have been in a summer 2020 without disruption. This will provide a common standard with the autumn and spring test data and allow tracking of term-to-term progress, as well as measures that can be used year-on-year into 2021-22 and beyond.

#### Ensuring the summer 2021 cohort was nationally representative

The same schools took part in the summer 2021 standardisation as in autumn 2019 and spring 2020, ensuring a nationally representative group of schools. The cohort of children taking the summer papers was different, as all children had moved up a year. Although our sample size was statistically large enough<sup>2</sup>, in order to ensure that this change in children in itself should have no significant impact on the outcomes, we verified they were a nationally representative cohort.<sup>3</sup>

## Understanding the impact of the disruption on performance

During 2021 we carried out analysis of test data entered into MARK to look at the national picture of attainment when compared to prior cohorts. This was published as **White Papers** in February and May 2021. The analysis showed that the disruption affected the average raw scores and distribution of scores of the 2020-21 cohort when compared to the 2019-20 cohort in their autumn and spring assessments. In many year groups we saw declines in average attainment and more so in younger years than in Key Stage 2 for reading. Due to the continued disruption to schooling in 2020-21 and these identified declines in attainment, we went on to review changes in attainment in summer 2021 to inform the summer paper standardisation through a comparative study outlined below.

#### Our comparative study

In summer 2021 some schools were using the New PUMA papers, whilst others continued to use the old edition papers. To identify national changes in attainment, we undertook a comparative study between performance on old *PiRA* summer papers taken in 2019 and the same summer papers taken in 2021. We used anonymised and aggregated test data from our MARK database taken within June, and ensured all entries were valid and the overall sample was nationally representative. The historical comparison of performance on the old papers provided us with a representative picture of change in national attainment for the 2020-21 cohort of children. Prior analysis of performance using MARK test data has shown very little change in average score year-on-year, meaning the summer 2019 cohort is a representative cohort for comparison.

<sup>&</sup>lt;sup>2</sup>Each Y1 – 6 test was taken by at least 1,100 pupils.

<sup>&</sup>lt;sup>3</sup>We verified this ahead of the Summer 2021 trial with a comparison in spring 2021. We compared performance of our new standardisation cohort on the published *New PiRA* spring papers to national performance on the same papers using data entered into MARK (My Assessment and Reporting Kit). The new standardisation cohort performance mirrored the national performance and so our cohort of children was confirmed to be nationally representative.

Our sample sizes were:

Year	2019	2021
R	3,619	1,083
1	23,211	8,009
2	15,974	7,088
3	28,233	8,955
4	27,500	9,590
5	23,886	7,895
6	4,565	3,335

We undertook detailed analyses and compared the two sets of results and particularly four sub-sets of performance – below 25%, between 25% and 50%, between 50% and 75% and above 75%. In this way we could examine whether any difference was a common feature to all levels of performance in a year group, or if one of the sub-sets was affected more than another.

#### Findings of the comparative study

The comparisons showed us that Year 2–6 pupils were, on average, back to attainment levels seen in summer 2019, while Year R pupils were 0-2 marks below 2019 and Year 1 pupils were 1-3 marks below (the biggest difference in the lowest attaining 25% of pupils).

#### How we have used these findings in the summer paper standardisation

We have used the change in attainment shown in our findings to re-align summer 2021 trial outcomes (where appropriate) so that they show the attainment the 2019-20 autumn and spring trial cohort would have reached without disruption. This will enable schools to compare term-on-term performance, as well as track year-on-year performance with data that will be valid for 2022 and beyond.

No adjustment has been made to Year 2–6 data, while Year R and Year 1 raw score to outcome relationship have been adjusted to account for the identified performance difference.

Year	Adjustment factor to New PiRA summer SS	Average raw score from summer trial 2021	Adjusted average raw score 2021
R	+1	16.4	17.4
1	+2	14.7	16.7

#### Impact of the changes on the summer paper outcomes

Adjustments have been made to overall test outcomes, that is to the relationship between raw scores and standardised scores, age-standardised scores, HSS, PHSS and reading ages. We did not have the required data to adjust facility values or strand averages and so these have been published as gathered from the trial. As these are smaller values, the performance we are likely to see for each will be only slightly higher in future years and so, at this scale, will not be hugely different from where children would have been without disruption.

As facility values and strand averages have been published per 2021 performance and not where pupils will be in future, this does mean that for tests with adjustment the sum of the strand averages will be different to the overall mean average, as the sum of the strands gives the unadjusted test mean score.<sup>4</sup> The same is true for the sum of facility values. We will monitor strand and facility value data in MARK in 2021-22 and review whether it is desirable to publish updated facility values or strand averages in 2022 onwards.

<sup>&</sup>lt;sup>4</sup>The sum of strand averages in a test should be equal to the overall average of a test.

# Reliability

The reliability of a test indicates whether or not similar results would be obtained from repeated administrations of the test with similar samples of pupils. An appropriate statistical measure of test reliability for *New PiRA* is Cronbach's alpha (*a*), which measures *internal consistency* reliability or how well the set of items measures reading skills in individuals in a consistent manner. A value above 0.60 is considered the minimum acceptable for most forms of educational assessment. This value for each test is presented in Tables 5.6–5.12 (pages 56–59) and shows that the tests are extremely reliable.

	Spring 2020	Summer 2021 trial	Summer 2021 adjusted
YR Number of pupils	1,027	832	832
YR Boys	514	423	423
YR Girls	513	409	409
YR Mean mark /25	16.7	16.4	17.4
Standard deviation	5.27	6.14	6.14
YR Cronbach's alpha	0.85	0.87	
YR 90% confidence band for mean	+/-3.37	+/-3.65	
YR 95% confidence band for mean	+/-4.08	+/-4.42	
YR Standard error of measurement	2.04	2.21	

Table 5.6: New PiRA Reception sample statistics and reliability measures

	Autumn 2019	Spring 2020	Summer 2021 trial	Summer 2021 adjusted
Y1 + Y2 Sample size for age-standardised score	2,753	2,314	2,137	2,137
Pearson correlation of age with test score <sup>5</sup>	0.47	0.44	0.43	
Y1 Number of pupils	1,425	1,230	1,150	1,150
Y1 Boys	688	594	570	570
Y1 Girls	737	636	580	580
Y1 Mean mark /25	14.9	12.8	14.7	16.7
Standard deviation	5.61	6.52	6.92	6.92
Y1 Cronbach's alpha	0.84	0.91	0.82	
Y1 90% confidence band for mean	+/-3.70	+/-3.23	+/-4.8	
Y1 95% confidence band for mean	+/-4.49	+/-3.91	+/-5.82	
Y1 Standard error of measurement	2.24	1.96	2.91	

#### Table 5.7: New PiRA 1 sample statistics and reliability measures

<sup>&</sup>lt;sup>5</sup>Another measure of reliability is the 'Pearson coefficient'. It is a measure of the correlation between pupils' *New PiRA* raw scores and their age during the standardisation process. Moderate correlations with age should not be taken to suggest low construct validity in this case because the tests are taken termly and matched to the curriculum. Therefore, age should not be as important as educational experiences.

	Autumn 2019	Spring 2020	Summer 2021
Y2 + Y3 Sample size for age-standardised score	2,735	2,392	2,149
Pearson correlation of age with test score	0.38	0.37	0.30
Y2 Number of pupils	1,405	1,279	1,119
Y2 Boys	725	655	530
Y2 Girls	682	624	586
Y2 Mean mark (Au /25; Sp & Su /30)	14.9	17.1	16.0
Standard deviation	6.25	7.33	6.73
Y2 Cronbach's alpha	0.75	0.91	0.76
Y2 90% confidence band for mean	+/-5.16	+/-3.63	+/-5.45
Y2 95% confidence band for mean	+/-6.25	+/-4.40	+/-6.60
Y2 Standard error of measurement	3.13	2.20	3.30

Table 5.8: New PiRA 2 sample statistics and reliability measures

	Autumn 2019	Spring 2020	Summer 2021
Y3 + Y4 Sample size for age-standardised score	2,610	2,330	2,187
Pearson correlation of age with test score	0.32	0.30	0.27
Y3 Number of pupils	1,421	1,238	1,144
Y3 Boys	726	633	589
Y3 Girls	695	605	555
Y3 Mean mark /40	21.7	22.7	22.1
Standard deviation	8.11	8.15	7.51
Y3 Cronbach's alpha	0.84	0.92	0.84
Y3 90% confidence band for mean	+/-5.35	+/-3.80	+/-4.95
Y3 95% confidence band for mean	+/-6.49	+/-4.61	+/-6.00
Y3 Standard error of measurement	3.24	2.31	3.00

Table 5.9: New PiRA 3 sample statistics and reliability measures

	Autumn 2019	Spring 2020	Summer 2021
Y4 + Y5 Sample size for age-standardised score	2,750	2,432	2,225
Pearson correlation of age with test score	0.31	0.27	0.25
Y4 Number of pupils	1,405	1,312	1,160
Y4 Boys	705	661	579
Y4 Girls	699	651	581
Y4 Mean mark /40	19.4	25.0	21.3
Standard deviation	8.38	8.11	9.08
Y4 Cronbach's alpha	0.85	0.91	0.89
Y4 90% confidence band for mean	+/-5.36	+/-4.01	+/-4.97
Y4 95% confidence band for mean	+/-6.49	+/-4.87	+/-6.02
Y4 Standard error of measurement	3.25	2.43	3.01

 Table 5.10: New PiRA 4 sample statistics and reliability measures

	Autumn 2019	Spring 2020	Summer 2021
Y5 + Y6 Sample size for age-standardised score	2,823	2,129	2,178
Pearson correlation of age with test score	0.32	0.26	0.25
Y5 Number of pupils	1,445	1,296	1,187
Y5 Boys	715	630	587
Y5 Girls	731	666	600
Y5 Mean mark /45	23.7	24.4	23.5
Standard deviation	9.27	8.95	8.37
Y5 Cronbach's alpha	0.86	0.90	0.89
Y5 90% confidence band for mean	+/-5.72	+/-4.67	+/-4.59
Y5 95% confidence band for mean	+/-6.94	+/-5.66	+/-5.56
Y5 Standard error of measurement	3.47	2.83	2.78

Table 5.11: New PiRA 5 sample statistics and reliability measures

	Autumn 2019	Spring 2020	Summer 2021
Y6 Number of pupils	1,473	1,356	1,131
Y6 Boys	773	716	544
Y6 Girls	678	633	587
Y6 Mean mark /45	27.6	23.6	26.6
Standard deviation	8.47	8.41	7.88
Y6 Cronbach's alpha	0.83	0.89	0.88
Y6 90% confidence band for mean	+/-5.76	+/-4.60	+/-4.50
Y6 95% confidence band for mean	+/-6.98	+/-5.58	+/-5.46
Y6 Standard error of measurement	3.49	2.79	2.71

### Table 5.12: New PiRA 6 sample statistics and reliability measures

Some of the overall sample sizes are greater than the sum of the boys and girls as a few test booklets did not indicate gender and the pupils' names gave no clue. As there was no correlation between score and age in 6 Spring, the Pearson measure of correlation has not been included in the Year 6 table.

All test scores are subject to some margin of error. This does not imply that a pupil has been assessed incorrectly, but rather that we need to make a statistical estimate of the accuracy of the test as a measuring instrument. There are two ways of reporting this margin of error. One is the 90% or 95% confidence band and the other is the standard error of measurement (SEM).

Using the confidence band, we can say that we are 90% confident that the pupil's 'true' score lies in a certain range around the obtained score. For example, for a pupil aged 7:08 (seven years and eight months) who obtains a raw score of 22 marks on *3 Autumn* and hence an age-standardised score of 100, we can say with 90% confidence that their 'true' age-standardised score lies between 92 and 108 (i.e. the age-standardised scores for raw scores +/-5 either side of their raw score of 22). The confidence band for each test is presented in Tables 5.6–5.12 (pages 56–59).

The SEM estimates how pupils' scores would be distributed around their true score if they took the test several times. The smaller the SEM the more reliable the score. The SEM for each test is also presented in Tables 5.6–5.12 (pages 56–59).

Another measure of reliability used here is the Pearson coefficient. It is a measure of the correlation between two variables, such as the relationship between age and raw score as shown in Tables 5.6–5.12 (pages 56–59). A perfect match would be 1. Values over 0.3 indicate a more than acceptable closeness while over 0.5 indicates a strong closeness.

For tests targeting a particular age range, we use a standardisation method based on percentile norms – the fundamental principle being that scores at the same percentile rank are comparable. Hence a pupil at the 30th percentile in their age group has the same relative ability as a pupil at the 30th percentile in any other age group. The standardisation procedure that we have used for these tests is called the non-parallel linear regression model.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup>Our basic methodology follows D.G. Lewis (see *Statistical Methods in Education*, University of London Press, 1972, pp. 86–96), with enhancements outlined by I. Schagen (see 'A Method for the Age Standardisation of Test Scores', *Applied Psychological Measurement*, 14, 4, December 1990, pp. 387–393) and L.A. Kiek (ESITEMS *User Guide – Age Standardisation*, Cambridge University Local Examinations Syndicate, Research and Evaluation Division, 1997, p. 61).

# Validity

Strong face validity for a test like *New PiRA* means that the test addresses the material in the Curriculum which the pupils have studied and been taught. Each test in the original *PiRA* series, from Reception to Year 6, was written to follow the National Curriculum framework for the second half of the previous term and the first half of the term the test is set for. This ensured that these tests, which should ideally be taken some time in the second half-term each term, met the validity criterion.

In *New PiRA* we have focused strongly on covering all of the eight content domains to support teachers monitoring progress across the whole Curriculum and at the same time provided an increased emphasis on inference and vocabulary, whilst maintaining the importance of comprehension. *New PiRA* tests mirror quite closely the Key Stage 1 and Key Stage 2 national tests in terms of their emphases but have the advantage of assessing every domain every term, which makes them a thoroughly valid assessment of the whole Curriculum.

*New PiRA* tests contain less text material than the national tests but there is less referencing to specific individual paragraphs and more emphasis on reading for meaning – as recommended by the *Rose Report*<sup>1</sup> – once phonics have been established. Table 4.5 (pages 42–45) shows the progression of demand or difficulty, using the Hodder Scale, across the *New PiRA* series as a whole.

<sup>1</sup>Review of the Teaching of Early Reading (DfES, 2006) and National Curriculum for English (DfE, 2014)

# **6 Standardised score tables**

## Standardised scores, Hodder Scale scores and reading ages

The following tables include the standardised score, the Hodder Scale score (HSS), the Predicted Hodder Scale score (Predicted HSS) for the next term and the reading age mapped to the raw score for each autumn, spring and summer assessment. Each table is a look-up table: once you have identified the raw score for a pupil you can use the following tables to identify each outcome for the pupil and mark it on the front cover of their test booklet.

#### **Reception Spring**

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	55	0.0	<0.1	
2	58	0.0	<0.1	
3	61	0.0	<0.1	
4	64	0.0	<0.1	
5	67	0.0	<0.1	
6	70	0.0	<0.1	
7	72	0.0	<0.1	
8	75	0.0	<0.1	<4:07
9	78	0.0	<0.1	
10	81	0.0	<0.1	
11	84	0.0	<0.1	
12	87	0.0	<0.1	
13	90	0.1	0.3	
14	92	0.1	0.3	
15	95	0.1	0.3	
16	98	0.2	0.5	4:07
17	101	0.2	0.5	4:09
18	104	0.3	0.6	5:03
19	107	0.4	0.7	5:09
20	109	0.5	0.8	
21	112	0.6	0.9	
22	115	0.7	0.9	<u>ک د.</u>
23	118	0.8	1.0	>5:09
24	121	0.9	1.1	
25	124	0.9	1.1	

## Reception Summer

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	58	0.0	<0.3	
2	60	0.0	<0.3	
3	62	0.0	<0.3	
4	65	0.0	<0.3	
5	67	0.0	<0.3	
6	70	0.0	<0.3	
7	72	0.0	<0.3	
8	75	0.0	<0.3	<4:08
9	77	0.0	<0.3	
10	79	0.0	<0.3	
11	82	0.0	<0.3	
12	84	0.1	<0.3	
13	87	0.2	0.3	
14	90	0.2	0.3	
15	93	0.3	0.4	
16	96	0.4	0.6	4:08
17	99	0.5	0.7	4:10
18	102	0.6	0.7	5:02
19	105	0.7	0.8	5:06
20	108	0.8	0.8	6:00
21	111	1.0	1.0	6:06
22	113	1.1	1.1	6:10
23	116	1.1	1.1	
24	119	1.2	1.2	>6:10
25	121	1.3	1.3	

## 1 Autumn

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	63	0.3	0.5	
2	66	0.4	0.7	
3	68	0.5	0.8	
4	71	0.5	0.8	
5	74	0.6	0.9	
6	76	0.6	0.9	<5:01
7	79	0.6	0.9	
8	82	0.7	1.0	
9	84	0.7	1.0	
10	87	0.8	1.1	
11	90	0.8	1.1	
12	92	0.8	1.1	5:01
13	95	0.9	1.2	5:03
14	98	0.9	1.2	5:04
15	100	1.0	1.3	5:06
16	103	1.0	1.3	5:09
17	106	1.1	1.4	5:11
18	108	1.1	1.4	6:02
19	111	1.2	1.5	6:04
20	114	1.3	1.5	6:07
21	116	1.4	1.7	6:09
22	119	1.5	1.9	6:11
23	122	1.6	2.1	7:02
24	124	1.7	2.3	7:05
25	127	1.7	2.3	>7:05

# 1 Spring

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	73	0.3	1.0	
2	75	0.5	1.0	
3	77	0.7	1.1	
4	80	0.8	1.1	
5	82	0.9	1.2	<5:05
6	84	1.0	1.2	
7	87	1.1	1.4	
8	89	1.2	1.4	
9	91	1.3	1.8	
10	94	1.4	1.9	5:05
11	96	1.5	2.0	5:07
12	98	1.6	2.1	5:08
13	100	1.7	2.2	5:10
14	103	1.8	2.2	6:00
15	105	1.9	2.3	6:03
16	107	2.0	2.4	6:05
17	110	2.1	2.4	6:07
18	112	2.1	2.4	6:10
19	114	2.2	2.4	7:00
20	117	2.3	2.4	7:03
21	119	2.4	2.5	7:05
22	121	2.5	2.5	7:07
23	123	2.6	2.6	
24	126	2.7	2.7	>7:07
25	128	2.7	2.7	

## 1 Summer

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	64	<1.0	0.9	
2	66	1.0	1.1	
3	68	1.0	1.1	
4	70	1.1	1.2	
5	72	1.1	1.2	
6	75	1.2	1.3	
7	77	1.2	1.3	<5:08
8	79	1.2	1.3	\$3.00
9	81	1.3	1.4	
10	83	1.4	1.5	
11	85	1.5	1.6	
12	88	1.7	1.7	
13	90	1.7	1.7	
14	92	1.8	1.8	
15	95	1.9	1.9	5:08
16	98	2.0	2.0	5:10
17	101	2.0	2.0	6:00
18	103	2.1	2.1	6:03
19	105	2.1	2.1	6:06
20	108	2.2	2.3	6:09
21	111	2.3	2.4	7:00
22	114	2.4	2.5	7:03
23	116	2.5	2.5	7:05
24	119	2.6	2.6	7:08
25	122	2.7	2.7	7:10

## 2 Autumn

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	67	0.8	1.1	
2	69	0.9	1.2	
3	72	1.1	1.4	
4	74	1.2	1.7	
5	76	1.2	1.7	
6	79	1.3	1.8	<6:01
7	81	1.4	1.8	×0.01
8	84	1.5	1.9	
9	86	1.5	1.9	
10	88	1.6	2.0	
11	91	1.6	2.0	
12	93	1.7	2.1	
13	95	1.8	2.2	6:01
14	98	1.9	2.2	6:03
15	100	1.9	2.2	6:05
16	103	2.0	2.3	6:08
17	105	2.1	2.4	6:10
18	107	2.1	2.4	7:01
19	110	2.2	2.5	7:04
20	112	2.3	2.5	7:06
21	115	2.4	2.7	7:09
22	117	2.4	2.7	8:00
23	119	2.5	3.1	8:02
24	122	2.6	3.2	8:06
25	124	2.7	3.3	>8:06

# 2 Spring

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	67	1.1	1.9	
2	69	1.2	2.0	
3	71	1.3	2.1	
4	73	1.4	2.1	
5	75	1.5	2.2	
6	77	1.6	2.2	
7	79	1.7	2.2	
8	81	1.8	2.3	<6:05
9	83	1.8	2.3	
10	85	1.9	2.3	
11	87	2.0	2.4	
12	90	2.1	2.4	
13	92	2.2	2.5	
14	94	2.2	2.5	
15	96	2.3	2.5	
16	98	2.3	2.5	6:05
17	100	2.4	2.6	6:07
18	102	2.5	2.7	6:10
19	104	2.5	2.7	7:01
20	106	2.6	2.7	7:04
21	108	2.7	2.8	7:07
22	110	2.9	2.9	7:10
23	112	3.0	3.1	8:01
24	114	3.1	3.2	8:04
25	116	3.2	3.3	8:07
26	119	3.2	3.3	
27	121	3.2	3.3	
28	123	3.3	3.4	>8:07
29	125	3.3	3.4	
30	127	3.4	3.4	

## 2 Summer

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	67	1.2	1.4	
2	69	1.5	1.6	
3	71	1.8	1.8	
4	73	1.9	2.0	
5	76	2.0	2.0	
6	78	2.1	2.1	
7	80	2.2	2.2	<6:08
8	82	2.2	2.2	
9	84	2.3	2.3	
10	87	2.3	2.3	
11	89	2.3	2.3	
12	91	2.4	2.4	
13	93	2.5	2.6	
14	96	2.5	2.6	6:08
15	98	2.5	2.6	6:10
16	100	2.6	2.7	7:02
17	102	2.7	2.8	7:04
18	105	2.8	2.9	7:07
19	107	2.9	3.0	7:10
20	109	3.0	3.0	8:00
21	111	3.1	3.1	8:03
22	113	3.2	3.2	8:06
23	116	3.3	3.3	8:08
24	118	3.3	3.3	8:10
25	120	3.4	3.4	
26	122	3.4	3.4	
27	125	3.5	3.5	>8:10
28	127	3.5	3.5	
29	129	3.6	3.6	
30	130	3.6	3.6	

## 3 Autumn

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	62	1.1	1.7	
2	64	1.2	1.8	
3	65	1.4	1.9	
4	67	1.6	1.9	
5	69	1.8	2.0	
6	71	2.0	2.1	
7	73	2.0	2.1	
8	75	2.1	2.1	
9	77	2.1	2.1	7.01
10	78	2.2	2.2	<7:01
11	80	2.3	2.3	
12	82	2.3	2.3	
13	84	2.3	2.3	
14	86	2.4	2.4	
15	88	2.4	2.4	
16	90	2.5	2.5	
17	91	2.5	2.5	
18	93	2.6	2.6	
19	95	2.6	2.6	7:01
20	97	2.6	2.6	7:03
21	99	2.7	2.8	7:04
22	101	2.7	2.8	7:07
23	102	2.8	2.8	7:09
24	104	2.8	2.8	7:11
25	106	2.9	2.9	8:02
26	108	2.9	2.9	8:04
27	110	2.9	2.9	8:06
28	112	3.0	3.1	8:09
29	114	3.0	3.1	8:11
30	115	3.0	3.1	9:02
31	117	3.1	3.2	
32	119	3.2	3.4	
33	121	3.2	3.4	
34	123	3.3	3.6	
35	125	3.4	3.7	>9.2
36	127	3.5	3.8	~9.Z
37	128	3.6	3.9	
38	130	3.7	4.0	
39	131	3.8	4.1	
40	133	3.9	4.2	

# 3 Spring

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	60	1.4	2.1	
2	62	1.5	2.1	
3	64	1.6	2.2	
4	66	1.7	2.2	
5	67	1.8	2.3	
6	69	1.8	2.3	
7	71	1.9	2.4	
8	73	2.0	2.5	
9	75	2.0	2.5	
10	77	2.1	2.6	47.05
11	78	2.1	2.6	<7:05
12	80	2.2	2.7	
13	82	2.2	2.7	
14	84	2.2	2.7	
15	86	2.3	2.8	
16	88	2.4	2.9	
17	90	2.5	3.0	
18	91	2.6	3.1	
19	93	2.6	3.1	
20	95	2.7	3.2	
21	97	2.8	3.3	7:05
22	99	2.8	3.3	7:08
23	101	2.9	3.4	7:10
24	102	2.9	3.4	8:01
25	104	3.0	3.5	8:04
26	106	3.1	3.6	8:07
27	108	3.2	3.7	8:10
28	110	3.3	3.7	9:01
29	112	3.4	3.8	9:03
30	113	3.6	3.9	9:05
31	115	3.7	4.0	9:07
32	117	3.8	4.0	
33	119	3.9	4.3	
34	121	4.0	4.3	
35	123	4.1	4.3	
36	124	4.1	4.3	>9:07
37	126	4.2	4.4	
38	128	4.2	4.4	
39	130	4.3	4.5	
40	132	4.3	4.5	

## 3 Summer

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	58	1.4	1.6	
2	60	1.5	1.6	
3	62	1.5	1.6	
4	64	1.7	1.8	
5	66	1.9	2.0	
6	68	2.0	2.1	
7	70	2.0	2.1	
8	72	2.1	2.2	
9	74	2.2	2.3	
10	76	2.2	2.3	<7:08
11	78	2.3	2.4	
12	80	2.4	2.5	
13	82	2.5	2.6	
14	84	2.6	2.8	
15	86	2.6	2.8	
16	88	2.7	2.9	
17	90	2.8	2.9	
18	92	2.9	3.0	
19	94	2.9	3.0	
20	96	3.0	3.1	7:08
21	98	3.1	3.2	7:10
22	100	3.1	3.2	8:00
23	102	3.2	3.3	8:03
24	104	3.2	3.3	8:06
25	106	3.3	3.4	8:09
26	108	3.4	3.6	9:00
27	110	3.5	3.7	9:03
28	112	3.6	3.8	9:07
29	114	3.7	3.9	9:09
30	116	3.8	4.2	9:11
31	118	3.9	4.3	
32	120	4.0	4.3	
33	122	4.1	4.5	
34	124	4.3	4.6	
35	126	4.4	4.6	>9:11
36	128	4.5	4.7	29.11
37	130	4.7	4.7	
38	132	4.7	4.7	
39	134	4.8	4.8	
40	135	4.8	4.8	

## 4 Autumn

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	67	1.6	1.9	
2	69	1.8	2.1	
3	71	2.0	2.2	
4	72	2.1	2.3	
5	74	2.2	2.4	
6	76	2.2	2.4	
7	78	2.3	2.6	
8	80	2.3	2.6	<8:01
9	81	2.4	2.7	
10	83	2.5	2.8	
11	85	2.6	2.9	
12	87	2.7	2.9	
13	88	2.8	3.0	
14	90	2.9	3.1	
15	92	2.9	3.1	
16	94	3.0	3.2	8:01
17	96	3.1	3.2	8:03
18	97	3.2	3.3	8:04
19	99	3.3	3.4	8:07
20	101	3.3	3.4	8:09
21	103	3.4	3.6	8:11
22	105	3.6	3.6	9:01
23	106	3.7	3.7	9:03
24	108	3.8	3.9	9:05
25	110	3.9	4.0	9:07
26	112	4.1	4.3	9:10
27	114	4.2	4.4	10:00
28	115	4.3	4.6	10:03
29	117	4.5	4.6	
30	119	4.6	4.7	
31	121	4.7	4.7	
32	122	4.8	4.8	
33	124	4.8	4.8	
34	126	4.9	4.9	>10:03
35	128	4.9	4.9	×10.05
36	130	4.9	4.9	
37	131	5.0	5.0	
38	133	5.0	5.0	
39	134	5.0	5.0	
40	135	5.0	5.0	
### 4 Spring

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	58	<1.9	<2.3	
2	58	<1.9	<2.3	
3	59	<1.9	<2.3	
4	61	<1.9	<2.3	
5	63	1.9	2.3	
6	65	2.1	2.4	
7	67	2.1	2.4	
8	69	2.2	2.6	
9	70	2.3	2.8	
10	72	2.4	2.9	
11	74	2.6	3.1	
12	76	2.7	3.2	<8:05
13	78	2.7	3.2	
14	80	2.8	3.2	
15	82	2.9	3.3	
16	83	2.9	3.3	
17	85	3.0	3.4	
18	87	3.1	3.5	
19	89	3.2	3.7	
20	91	3.2	3.7	
21	93	3.3	3.9	
22	95	3.4	3.9	
23	96	3.6	3.9	
24	98	3.7	4.0	8:05
25	100	3.8	4.1	8:06
26	102	3.9	4.2	8:09
27	104	4.0	4.3	9:00
28	106	4.1	4.4	9:03
29	107	4.3	4.5	9:07
30	109	4.4	4.6	9:10
31	111	4.6	4.7	10:01
32	113	4.7	4.7	10:04
33	115	4.7	4.7	10:07
34	117	4.8	4.8	
35	119	4.8	4.8	
36	120	4.9	4.9	
37	122	4.9	4.9	>10:07
38	124	5.0	5.0	
39	126	5.0	5.0	
40	127	5.1	5.2	

### 4 Summer

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	67	1.8	2.1	
2	68	2.0	2.1	
3	70	2.1	2.2	
4	72	2.1	2.2	
5	73	2.2	2.3	
6	75	2.3	2.3	
7	76	2.4	2.5	
8	78	2.5	2.5	
9	80	2.7	2.7	49.09
10	81	2.8	2.8	<8:08
11	83	2.9	2.9	
12	85	3.0	3.0	
13	86	3.1	3.1	
14	88	3.2	3.2	
15	90	3.3	3.3	
16	91	3.4	3.4	
17	93	3.5	3.5	
18	95	3.6	3.6	
19	96	3.7	3.7	8:08
20	98	3.8	3.8	8:10
21	100	3.9	3.9	9:00
22	101	3.9	3.9	9:02
23	103	4.0	4.0	9:05
24	105	4.1	4.1	9:08
25	106	4.2	4.2	9:10
26	108	4.3	4.3	10:01
27	110	4.4	4.4	10:03
28	111	4.5	4.5	10:06
29	113	4.6	4.6	10:08
30	114	4.7	4.7	10:10
31	116	4.8	4.8	
32	118	4.8	4.8	
33	119	4.9	4.9	
34	121	5.0	5.0	
35	123	5.0	5.0	>10:10
36	124	5.1	5.2	210.10
37	126	5.1	5.2	
38	128	5.2	5.3	
39	129	5.2	5.3	
40	130	5.3	5.3	

#### 5 Autumn

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	63	2.1	2.2	
2	65	2.1	2.2	
3	67	2.2	2.4	
4	68	2.3	2.6	
5	70	2.5	2.8	
6	71	2.5	2.8	
7	73	2.6	2.9	
8	75	2.7	2.9	
9	76	2.8	2.9	
10	78	2.9	3.0	<9:01
11	79	3.0	3.2	
12	81	3.1	3.3	
13	83	3.1	3.3	
14	84	3.2	3.4	
15	86	3.3	3.4	
16	88	3.3	3.4	
17	89	3.5	3.8	
18	91	3.6	3.9	
19	92	3.6	3.9	
20	94	3.7	3.9	9:01
21	96	3.8	4.0	9:03
22	97	3.9	4.1	9:04
23	99	3.9	4.1	9:06
24	101	4.0	4.1	9:08
25	102	4.1	4.2	9:10
26	104	4.2	4.3	10:00
27	105	4.2	4.3	10:02
28	107	4.3	4.4	10:04
29	109	4.4	4.5	10:06
30	110	4.4	4.5	10:08
31	112	4.5	4.6	10:10
32	113	4.6	4.7	11:00
33	115	4.6	4.7	11:03
34	117	4.7	4.8	
35	118	4.8	4.8	
36	120	4.9	4.9	
37	122	4.9	4.9	
38	123	5.0	5.0	
39	125	5.0	5.0	>11:03
40	126	5.1	5.2	
41	128	5.2	5.3	
42	130	5.2	5.3	
43	131	5.3	5.5	
44	132	5.3	5.5	
45	133	5.3	5.5	

### 5 Spring

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	62	<1.9	<2.5	
2	63	<1.9	<2.5	
3	64	1.9	2.8	
4	66	2.1	2.8	
5	67	2.2	3.0	
6	69	2.4	3.2	
7	71	2.6	3.3	
8	73	2.7	3.4	
9	74	2.8	3.6	
10	76	2.9	3.8	
11	78	3.0	3.8	(0.02
12	79	3.2	3.9	<9:03
13	81	3.3	4.0	
14	83	3.4	4.1	
15	84	3.5	4.1	
16	86	3.6	4.2	
17	88	3.7	4.2	
18	89	3.8	4.2	
19	91	3.9	4.3	
20	93	4.0	4.5	
21	94	4.0	4.5	
22	96	4.1	4.6	
23	98	4.2	4.7	9:03
24	99	4.3	4.7	9:06
25	101	4.4	4.9	9:10
26	103	4.5	5.0	10:03
27	104	4.5	5.0	10:08
28	106	4.6	5.1	11:00
29	108	4.7	5.2	11:07
30	109	4.7	5.2	
31	111	4.8	5.2	
32	113	4.9	5.3	
33	114	4.9	5.3	
34	116	5.0	5.4	
35	118	5.0	5.4	
36	119	5.1	5.5	
37	121	5.1	5.5	>11:07
38	123	5.2	5.5	
39	124	5.3	5.6	
40	126	5.3	5.6	
41	128	5.4	5.7	
42	130	5.5	5.7	
43	131	5.6	5.7	
44	132	5.7	5.8	
45	133	5.7	5.8	

#### 5 Summer

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	60	2.0	2.5	
2	62	2.0	2.5	
3	63	2.4	2.6	
4	65	2.5	2.7	
5	67	2.6	2.8	
6	69	2.8	3.0	
7	71	2.9	3.2	
8	72	3.0	3.2	
9	74	3.1	3.3	
10	76	3.2	3.5	
11	78	3.3	3.7	<9:08
12	79	3.4	3.7	
13	81	3.5	3.8	
14	83	3.6	3.9	
15	85	3.7	4.0	
16	87	3.8	4.1	
17	88	3.8	4.1	
18	90	3.9	4.3	
19	92	4.0	4.5	
20	94	4.1	4.6	
21	96	4.3	4.8	
22	97	4.3	4.8	9:08
23	99	4.4	4.9	9:11
24	101	4.5	5.1	10:02
25	103	4.7	5.3	10:05
26	105	4.7	5.3	10:08
27	106	4.9	5.5	10:11
28	108	5.0	5.5	11:02
29	110	5.1	5.6	11:05
30	112	5.1	5.6	11:08
31	114	5.3	5.7	11:10
32	115	5.3	5.7	
33	117	5.4	5.7	
34	119	5.5	5.7	
35	121	5.5	5.7	
36	122	5.6	5.7	
37	124	5.6	5.7	
38 39	126 128	5.7 5.8	5.7	>11:10
40	128	5.8	5.8 5.8	
40		5.8	5.8	
41	131 133	5.8	5.8	
42	134	5.9	5.9	
43	135	6.0	6.0	
45	136	6.0	6.0	
45	סכו	0.0	0.0	

### 6 Autumn

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	55	2.0	2.4	
2	55	2.1	2.4	
3	56	2.3	2.8	
4	58	2.4	2.9	
5	60	2.4	2.9	
6	62	2.5	3.0	
7	64	2.6	3.0	
8	65	2.7	3.1	
9	67	2.7	3.1	
10	69	2.8	3.2	
11	71	2.8	3.2	
12	72	3.0	3.6	
13	74	3.3	3.7	<9:11
14	76	3.4	3.8	
15	78	3.4	3.8	
16	79	3.5	3.8	
17	81	3.6	3.8	
18	83	3.6	3.8	
19	85	3.7	3.9	
20	87	3.7	3.9	
21	88	3.8	4.0	
22	90	3.9	4.0	
23	92	4.0	4.1	
24	94	4.1	4.2	
25	95	4.2	4.3	
26	97	4.2	4.3	9:11
27	99	4.3	4.4	10:01
28	101	4.5	4.7	10:04
29	102	4.5	4.7	10:07
30	104	4.6	4.7	10:10
31	106	4.7	4.8	11:01
32	108	4.7	4.8	11:05
33	110	4.8	4.9	11:09
34	111	4.9	5.0	12:00
35	113	5.0	5.1	
36	115	5.1	5.2	
37	117	5.1	5.2	
38	118	5.2	5.3	
39	120	5.3	5.3	
40	122	5.4	5.5	>12:00
41	124	5.5	5.6	
42	125	5.5	5.6	
43	126	5.6	5.7	
44	127	5.7	5.8	
45	128	5.9	6.1	

### 6 Spring

Raw score	Standardised score	HSS	Predicted HSS	Reading age
1	60	2.4	3.3	
2	61	2.6	3.6	
3	63	2.8	3.7	
4	65	2.8	3.7	
5	67	2.9	3.9	
6	69	2.9	3.9	
7	70	3.0	3.9	
8	72	3.1	4.0	
9	74	3.2	4.1	
10	76	3.2	4.1	
11	77	3.4	4.2	<10:03
12	79	3.5	4.2	×10.05
13	81	3.6	4.3	
14	83	3.7	4.4	
15	85	3.7	4.4	
16	86	3.8	4.5	
17	88	3.9	4.7	
18	90	3.9	4.7	
19	92	4.0	4.8	
20	94	4.1	4.9	
21	95	4.2	4.9	
22	97	4.3	5.0	
23	99	4.4	5.0	10:03
24	101	4.4	5.0	10:06
25	103	4.5	5.1	10:09
26	104	4.7	5.1	11:00
27	106	4.7	5.1	11:03
28	108	4.8	5.1	11:07
29	110	4.9	5.2	12:01
30	112	5.0	5.3	12:02
31	113	5.1	5.4	
32	115	5.2	5.4	
33	117	5.3	5.5	
34	119	5.4	5.5	
35	120	5.5	5.5	
36	122	5.6	5.6	
37	124	5.6	5.6	
38	126	5.7	5.7	>12:02
39	128	5.8	5.9	
40	129	5.9	6.0	
41	131	6.0	6.1	
42	133	6.1	6.2	
43	134	6.1	6.2	
44	135	6.2	6.3	
45	136	6.2	6.3	

#### 6 Summer

Raw score	Standardised score	HSS	Reading age
1	51	2.1	
2	53	2.1	
3	55	2.2	
4	57	2.6	
5	59	2.7	
6	61	2.8	
7	63	2.9	
8	65	3.3	
9	66	3.6	
10	68	3.7	
11	70	3.9	
12	72	4.0	<10:08
13	74	4.0	
14	76	4.0	
15	78	4.1	
16	80	4.2	
17	82	4.3	
18	84	4.4	
19	86	4.5	
20	87	4.5	
21	89	4.6	
22	91	4.7	
23	93	4.7	
24	95	4.8	10:08
25	97	4.9	10:10
26	99	5.0	11:00
27	101	5.0	11:02
28	103	5.1	11:05
29	105	5.2	11:07
30	106	5.2	11:09
31	108	5.3	11:11
32	110	5.3	12:02
33	112	5.4	
34	114	5.5	
35	116	5.5	
36	118	5.6 5.7	
37 38	120	5.7	
	122		12.02
<u> </u>	124 125	5.8 5.9	>12:02
40	125	5.9	
41	127	6.0	
42	129	6.0	
		6.1	
44	133		
45	135	6.3	

# Age-standardised scores

### Reception Spring

Raw			Age	in years o	and comp	leted mo	onths			Raw
score	4:07	4:08	4:09	4:10	4:11	5:00	5:01	5:02	5:03	score
0										0
1			Awo	ard <69 fo	or all score	es in this a	irea.			1
2	70									2
3	73	72	70							3
4	76	75	73	72	71	70				4
5	78	77	76	75	74	72	71	70		5
6	80	79	78	77	76	75	74	73	71	6
7	82	81	80	79	78	77	76	75	74	7
8	83	83	82	81	80	79	78	77	76	8
9	85	84	83	83	82	81	80	79	78	9
10	87	86	85	84	83	83	82	81	80	10
11	89	88	87	86	85	84	83	83	82	11
12	92	90	89	88	87	86	85	84	83	12
13	94	93	92	90	89	88	87	86	85	13
14	96	95	94	93	92	91	89	88	87	14
15	98	98	97	96	95	94	92	91	90	15
16	101	100	99	98	97	96	95	94	93	16
17	104	103	102	101	100	99	98	97	96	17
18	107	106	105	104	103	102	101	100	98	18
19	110	109	108	108	106	105	104	103	101	19
20	113	112	111	110	109	109	108	107	105	20
21	117	116	115	114	113	113	111	110	109	21
22	122	121	120	120	119	117	116	115	114	22
23	127	126	125	124	124	123	122	122	121	23
24			130	130	130	129	129	128	128	24
25			Awa	rd >131 f	or all scor	es in this o	area.			25
	4:07	4:08	4:09	4:10	4:11	5:00	5:01	5:02	5:03	

# Reception Spring (cont.)

Raw			Age	in years (	and comp	leted mo	nths			Raw
score	5:04	5:05	5:06	5:07	5:08	5:09	5:10	5:11	6:00	score
0										0
1										1
2										2
3			Awo	ard <69 fo	or all score	s in this a	rea.			3
4										4
5										5
6	70									6
7	73	72	71							7
8	75	74	73	71	70					8
9	77	76	75	74	73	71	70			9
10	79	78	77	76	75	74	73	72	71	10
11	81	80	79	78	77	76	75	74	73	11
12	83	82	81	80	79	78	77	76	75	12
13	84	83	83	82	81	80	79	78	77	13
14	86	85	84	83	83	82	81	80	79	14
15	89	88	86	85	84	83	83	82	81	15
16	91	90	89	87	86	85	84	83	83	16
17	94	93	92	89	88	87	86	85	84	17
18	97	96	95	92	91	90	89	88	86	18
19	100	99	98	98	97	96	94	93	92	19
20	104	103	101	101	100	98	97	96	95	20
21	109	107	105	104	103	101	100	99	98	21
22	113	111	110	108	107	105	104	103	101	22
23	120	118	116	112	110	109	109	107	105	23
24	127	126	125	123	122	120	118	116	116	24
25	>131	>131	130	130	129	128	127	126	125	25
	5:04	5:05	5:06	5:07	05:08	5:09	5:10	5:11	6:00	

### Reception Summer

Raw				А	ge in y	vears a	nd com	pleted	montl	าร				Raw
score	4:09	4:10	4:11	5:00	5:01	5:02	5:03	5:04	5:05	5:06	5:07	5:08	5:09	score
0														0
1														1
2														2
3					Award ·	<69 for	all sco	pres in this area.						3
4														4
5	74	71												5
6	79	77	74	71										6
7	82	81	79	77	74	71								7
8	84	83	82	81	79	77	74	70						8
9	85	85	84	83	82	81	79	77	74	70				9
10	87	86	85	85	84	83	82	81	79	77	75	70		10
11	88	87	87	86	86	85	84	83	82	81	80	77	75	11
12	89	89	88	88	87	86	86	85	84	84	82	81	80	12
13	91	90	90	89	89	88	87	87	86	85	85	84	83	13
14	94	93	92	92	92	91	91	90	90	88	88	87	86	14
15	96	95	94	94	94	93	93	92	92	91	90	89	89	15
16	98	97	97	96	95	95	94	94	93	93	92	92	91	16
17	101	100	100	99	98	97	97	96	95	94	94	93	93	17
18	102	102	102	101	101	100	100	99	98	97	96	96	95	18
19	105	105	104	103	103	102	102	101	101	101	100	99	98	19
20	109	109	108	108	107	107	106	106	106	105	105	104	103	20
21	113	112	112	112	111	111	110	110	110	109	109	108	108	21
22	116	116	116	115	115	114	114	114	113	113	113	113	112	22
23	121	121	121	120	120	120	120	119	119	119	119	118	118	23
24	130	130	130	130	130	126	126	124	124	123	123	122	122	24
25	A	ward >	131 fo	r all sco	res in t	his area	a.	130	130	130	129	129	129	25
	4:09	4:10	4:11	5:00	5:01	5:02	5:03	5:04	5:05	5:06	5:07	5:08	5:09	

# Reception Summer (cont.)

Raw		•		Д	ge in y	vears a	nd com	pleted	montl	าร				Raw
score	5:10	5:11	6:00	6:01	6:02	6:03	6:04	6:05	6:06	6:07	6:08	6:09	6:10	score
0														0
1														1
2														2
3														3
4														4
5														5
6		Award <69 for all scores in this area.									6			
7														7
8														8
9														9
10														10
11	70													11
12	77	75	70											12
13	82	80	78	75	70	69								13
14	85	84	82	81	78	77	76	75	70					14
15	88	87	86	86	85	84	82	81	78	75	70			15
16	90	89	88	88	87	86	85	84	83	81	79	76	75	16
17	92	92	91	90	89	88	87	86	85	84	83	81	80	17
18	94	93	93	92	91	91	90	89	88	87	86	85	84	18
19	97	96	95	94	94	93	92	91	90	89	88	87	86	19
20	102	102	101	100	100	99	99	97	96	95	94	92	91	20
21	108	107	107	106	106	104	103	102	102	101	100	98	97	21
22	112	111	110	110	109	109	108	108	107	106	105	103	102	22
23	118	117	117	116	116	115	115	114	113	113	112	111	110	23
24	122	122	121	121	121	120	120	120	119	119	119	118	118	24
25	129	129	128	128	128	128	127	127	126	126	125	124	124	25
	5:10	5:11	6:00	6:01	6:02	6:03	6:04	6:05	6:06	6:07	6:08	6:09	6:10	

#### 1 Autumn

Raw					Age i	n years	s and a	comple	eted m	onths					Raw
score	5:01	5:02	5:03	5:04	5:05	5:06	5:07	5:08	5:09	5:10	5:11	6:00	6:01	6:02	score
0					Awar	d <69	for all :	scores	in this	area.					0
1	77	75	73	71	69										1
2	79	78	77	75	73	71	70								2
3	82	80	79	78	76	75	73	71	70						3
4	85	83	82	80	79	78	76	75	73	71	70				4
5	86	85	85	83	81	80	79	77	76	74	73	71	70		5
6	88	87	86	85	84	83	81	80	78	77	76	74	73	71	6
7	90	89	88	87	86	85	84	82	81	79	78	77	75	74	7
8	92	91	90	89	88	87	86	85	83	82	80	79	78	76	8
9	94	93	92	91	90	89	88	87	86	84	83	81	80	79	9
10	96	95	94	93	92	91	90	89	88	86	85	84	82	81	10
11	98	97	96	95	94	93	92	91	90	89	87	86	85	84	11
12	99	99	98	97	96	95	94	93	92	91	90	88	87	86	12
13	102	101	99	99	98	97	96	95	94	93	92	91	90	88	13
14	104	103	102	101	100	99	98	97	96	95	94	93	92	91	14
15	107	106	104	103	102	101	100	99	98	97	96	95	94	93	15
16	109	108	107	106	105	104	103	102	101	100	99	98	96	95	16
17	112	111	109	108	108	107	106	105	104	102	101	100	99	98	17
18	114	113	112	111	110	109	109	108	107	106	105	103	102	101	18
19	117	116	114	114	113	112	111	110	110	109	108	107	105	104	19
20	120	119	117	117	116	115	115	114	113	112	111	110	109	108	20
21	124	123	120	120	119	119	118	117	117	116	115	114	113	112	21
22	129	127	124	124	123	123	122	122	121	120	120	119	118	117	22
23			129	129	128	128	127	127	126	126	125	124	124	123	23
24															24
25					Award	1>131	for all	scores	in this	area.					25
	5:01	5:02	5:03	5:04	5:05	5:06	5:07	5:08	5:09	5:10	5:11	6:00	6:01	6:02	

#### 1 Autumn (cont.)

Raw				A	ge in y	vears ai	nd com	pleted	month	าร			•	Raw
score	6:03	6:04	6:05	6:06	6:07	6:08	6:09	6:10	6:11	7:00	7:01	7:02	7:03	score
0														0
1														1
2														2
3				1	Award •	<69 for	all scoi	es in th	nis area	l.				3
4														4
5														5
6	70													6
7	73	71	70											7
8	75	74	73	71	70									8
9	77	76	75	74	72	71	70							9
10	80	78	77	76	75	74	72	71	70					10
11	82	80	79	78	77	76	75	73	72	71	70	69		11
12	85	83	82	80	79	78	77	76	74	73	72	71	70	12
13	87	86	84	83	81	80	79	78	76	75	74	73	72	13
14	89	88	86	85	84	82	81	80	78	77	76	75	74	14
15	92	90	89	87	86	85	83	82	80	79	78	77	76	15
16	94	93	91	90	89	87	86	85	83	81	80	79	78	16
17	97	95	94	93	91	90	88	87	86	84	83	81	80	17
18	99	98	97	95	94	93	91	90	88	86	85	84	82	18
19	103	101	100	98	97	96	94	92	91	89	88	86	85	19
20	107	105	104	102	100	99	97	96	94	92	91	89	87	20
21	111	110	109	107	105	103	101	99	98	96	94	92	90	21
22	116	115	114	112	111	109	107	105	103	100	98	96	94	22
23	122	121	120	119	117	116	114	112	110	108	105	102	99	23
24		130	130	129	128	127	125	123	122	119	116	112	108	24
25				A	ward >	131 for	all sco	res in t	his area	ı.		123	119	25
	6:03	6:04	6:05	6:06	6:07	6:08	6:09	6:10	6:11	7:00	7:01	7:02	7:03	

# 1 Spring

D					Age	e in ye	ars ar	nd com	nplete	d mon	ths					D
Raw score	5:05	5:06	5:07	5:08	5:09	5:10	5:11	6:00	6:01	6:02	6:03	6:04	6:05	6:06	6:07	Raw score
0					Aw	vard <6	59 for	all sco	res in	this ar	ea.					0
1	84	82	79	77	74	71										1
2	86	85	84	82	80	78	76	73	70							2
3	88	87	86	85	84	82	80	78	77	75	72	70				3
4	90	89	88	87	86	85	84	82	80	79	77	76	74	71	70	4
5	91	90	90	89	88	87	86	85	84	82	81	79	78	76	75	5
6	93	92	91	90	90	89	88	87	86	85	84	82	81	79	78	6
7	95	94	93	92	91	90	89	89	88	87	86	85	84	82	81	7
8	96	95	94	94	93	92	91	90	89	88	87	87	86	85	83	8
9	98	97	96	95	94	94	93	92	91	90	89	88	87	86	86	9
10	100	99	98	97	96	95	94	94	93	92	91	90	89	88	87	10
11	101	100	99	99	98	97	96	95	94	93	93	92	91	90	89	11
12	103	102	101	100	100	99	98	97	96	95	94	93	93	92	91	12
13	105	104	103	102	102	101	100	99	98	97	96	95	94	93	92	13
14	107	106	105	104	103	103	102	101	100	99	98	97	96	95	94	14
15	109	108	107	106	105	105	104	103	102	101	100	100	99	98	96	15
16	111	110	109	108	107	107	106	105	105	104	103	102	101	100	99	16
17	112	112	110	110	109	109	108	108	107	106	105	104	103	103	101	17
18	114	114	112	112	111	111	110	110	109	109	108	107	106	105	104	18
19	117	116	114	114	114	113	113	112	112	111	110	110	109	108	107	19
20	119	117	116	116	116	115	115	115	114	114	113	113	112	111	110	20
21	123	121	119	118	118	118	118	117	117	116	116	115	115	114	114	21
22	127	124	122	122	122	121	121	121	120	120	120	119	119	118	118	22
23	130	128	126	126	126	125	125	125	125	125	125	125	125	125	124	23
24		130	130	130	130	130		130	130	130	130	130	130	130	129	24
25										this a						25
	5:05	5:06	5:07	5:08	5:09	5:10	5:11	6:00	6:01	6:02	6:03	6:04	6:05	6:06	6:07	

# 1 Spring (cont.)

David					Age i	n year	s and a	comple	eted m	onths					David
Raw score	6:08	6:09	6:10	6:11	7:00	7:01	7:02	7:03	7:04	7:05	7:06	7:07	7:08	7:09	Raw score
0															0
1															1
2					Awar	d <69	for all :	scores	in this	area.					2
3															3
4															4
5	73	71	69												5
6	77	76	74	72	71	69									6
7	80	78	77	76	75	73	72	70	69						7
8	82	81	80	79	77	76	75	74	73	71	70				8
9	85	83	82	81	80	79	78	77	76	75	74	72	71	70	9
10	86	85	85	83	82	81	80	79	78	77	76	75	74	73	10
11	88	87	86	85	85	83	82	81	80	79	78	77	77	76	11
12	90	89	88	87	86	85	85	83	82	81	80	79	79	78	12
13	91	91	90	89	88	87	86	85	84	83	82	81	81	80	13
14	93	92	91	90	90	89	88	87	86	85	84	83	82	82	14
15	95	94	93	92	91	90	89	88	88	87	86	85	84	83	15
16	98	97	95	94	93	92	91	90	89	88	87	87	86	85	16
17	100	99	98	97	95	94	93	92	91	90	89	88	87	87	17
18	103	102	101	99	98	97	96	94	93	92	91	90	89	88	18
19	106	105	104	103	101	100	99	97	96	94	93	92	91	90	19
20	109	109	108	106	105	104	102	100	99	97	96	94	93	92	20
21	113	113	111	110	109	108	107	105	103	101	99	98	96	94	21
22	117	117	116	115	114	113	112	110	109	107	105	102	100	98	22
23	124	124	123	123	123	122	121	120	118	116	114	111	108	104	23
24	129	129	128	128	128	127	126	126	124	123	122	119	116	112	24
25	>131	>131	130	130	130	130	130	130	129	128	127	126	124	121	25
	6:08	6:09	6:10	6:11	7:00	7:01	7:02	7:03	7:04	7:05	7:06	7:07	7:08	7:09	

#### 1 Summer

Raw				A	ge in y	vears a	nd com	pleted	month	าร			•	Raw
score	5:09	5:10	5:11	6:00	6:01	6:02	6:03	6:04	6:05	6:06	6:07	6:08	6:09	score
0	76	73	69											0
1	78	76	74	70			Award ·	<69 for	all scoi	es in th	nis area	l <b>.</b>		1
2	80	78	76	74	70									2
3	82	80	78	76	74	71	69							3
4	84	82	80	78	77	75	73	70						4
5	85	84	82	81	79	77	76	74	71	69				5
6	86	85	84	83	81	80	78	76	74	72	70			6
7	87	86	86	85	83	82	81	79	77	75	73	71	69	7
8	89	88	87	86	85	84	83	81	80	78	76	74	72	8
9	90	89	88	87	86	85	84	83	82	80	78	77	75	9
10	92	91	90	89	88	87	86	85	84	82	81	79	77	10
11	93	92	91	90	89	88	87	86	85	84	83	81	80	11
12	94	93	92	92	91	90	89	88	87	86	85	83	82	12
13	95	94	93	93	92	91	90	89	88	87	86	85	84	13
14	96	96	95	95	94	93	93	92	91	90	89	88	86	14
15	99	98	98	97	96	95	95	94	93	92	91	90	89	15
16	100	100	99	99	98	97	96	95	94	94	93	92	91	16
17	103	102	101	100	100	99	98	97	96	95	94	93	92	17
18	105	104	103	102	102	101	100	99	98	97	96	95	94	18
19	107	107	106	106	105	104	103	102	102	101	100	100	99	19
20	110	110	109	109	108	107	106	105	105	104	103	103	102	20
21	113	112	112	111	111	110	110	109	108	107	106	105	104	21
22	116	115	115	114	114	113	112	112	111	111	110	109	108	22
23	120	119	119	118	118	117	117	116	115	115	114	113	112	23
24	122	122	122	122	122	122	121	121	121	120	120	120	119	24
25	126	126	126	126	126	126	126	126	126	126	126	126	126	25
	5:09	5:10	5:11	6:00	6:01	6:02	6:03	6:04	6:05	6:06	6:07	6:08	6:09	

#### 1 Summer (cont.)

Raw				A	ge in y	ears a	nd com	pleted	month	าร	•		•	Raw
score	6:10	6:11	7:00	7:01	7:02	7:03	7:04	7:05	7:06	7:07	7:08	7:09	7:10	score
0														0
1														1
2														2
3														3
4				1	Award •	<69 for	all scor	es in th	nis area	l.				4
5														5
6														6
7														7
8	70													8
9	73	71	70											9
10	76	74	72	70										10
11	78	77	75	73	71	70								11
12	80	79	77	76	74	72	70							12
13	82	81	79	78	76	75	73	71	70					13
14	85	84	82	81	80	78	76	74	73	70				14
15	88	87	85	84	83	81	80	78	77	75	74	72	71	15
16	90	88	87	86	85	83	82	80	79	77	76	74	73	16
17	91	90	89	88	86	85	84	82	81	79	78	76	75	17
18	93	92	91	90	88	87	86	85	83	82	80	79	77	18
19	98	96	94	93	91	90	89	88	86	85	84	82	81	19
20	100	99	98	96	95	94	92	91	89	88	86	85	83	20
21	103	102	101	100	98	96	95	93	92	90	89	87	85	21
22	107	105	105	103	102	100	98	96	95	93	91	90	88	22
23	112	111	110	108	106	105	103	101	99	97	94	92	91	23
24	118	117	116	115	114	112	111	108	105	103	100	97	94	24
25	126	126	126	126	126	126	125	125	124	124	120	111	103	25
	6:10	6:11	7:00	7:01	7:02	7:03	7:04	7:05	7:06	7:07	7:08	7:09	7:10	

#### 2 Autumn

D					Age in	n years	and c	omple	ted m	onths					D
Raw score	6:01	6:02	6:03	6:04	6:05	6:06	6:07	6:08	6:09	6:10	6:11	7:00	7:01	7:02	Raw score
0					Awaı	<sup>.</sup> d <69	for all :	scores	in this	area.					0
1	78	76	75	72	70										1
2	80	79	78	76	75	73	71	70							2
3	82	81	80	79	78	77	76	74	72	71	69				3
4	85	83	82	81	80	79	78	77	76	75	73	72	70		4
5	87	86	85	83	82	81	80	79	78	77	76	75	74	72	5
6	89	88	87	86	84	83	82	81	80	79	78	77	76	76	6
7	90	89	88	88	86	85	84	83	82	81	80	79	78	77	7
8	92	91	90	89	88	87	86	85	84	83	82	81	80	79	8
9	93	92	92	91	90	89	88	87	86	85	84	83	82	81	9
10	95	94	93	92	92	91	90	89	88	87	86	85	84	83	10
11	97	96	95	94	93	92	92	91	90	89	88	87	86	85	11
12	99	98	97	96	95	94	94	93	92	91	90	89	88	87	12
13	100	99	98	98	97	96	95	95	94	93	92	91	90	89	13
14	103	102	100	99	99	98	97	96	96	95	94	93	92	91	14
15	105	104	103	102	101	100	99	98	97	97	96	95	94	93	15
16	107	106	104	104	103	103	102	101	100	99	98	97	96	95	16
17	109	108	107	106	105	105	104	103	102	102	100	99	98	97	17
18	111	110	109	108	108	107	106	105	105	104	103	102	101	100	18
19	114	113	111	111	110	110	109	108	107	107	106	105	104	103	19
20	118	117	114	113	113	112	112	111	110	110	109	108	107	106	20
21	121	120	117	117	116	115	115	114	113	113	112	111	111	110	21
22	125	124	121	120	120	119	119	118	117	117	116	115	114	114	22
23			125	124	124	124	123	123	122	122	121	120	120	119	23
24								130	130	129	128	127	127	126	24
25					Awar	d >131	for all	scores	in this	area.					25
	6:01	6:02	6:03	6:04	6:05	6:06	6:07	6:08	6:09	6:10	6:11	7:00	7:01	7:02	

#### 2 Autumn (cont.)

D				Д	ge in y	vears ai	nd com	pleted	month	S				D
Raw score	7:03	7:04	7:05	7:06	7:07	7:08	7:09	7:10	7:11	8:00	8:01	8:02	8:03	Raw score
0														0
1														1
2					Award ·	<69 for	all scor	es in th	nis area					2
3														3
4														4
5	71	70												5
6	74	73	72	71	70									6
7	77	76	75	74	72	71	70	69						7
8	78	78	77	76	75	74	73	72	71	70				8
9	80	79	79	78	77	76	75	74	73	72	71	71	70	9
10	82	81	80	79	79	78	77	76	76	75	74	73	72	10
11	84	83	82	81	80	80	79	78	77	77	76	75	74	11
12	86	85	84	83	82	81	80	80	79	78	77	77	76	12
13	88	87	86	85	84	83	82	81	80	80	79	78	77	13
14	90	89	88	87	86	85	84	83	82	81	80	80	79	14
15	92	91	90	89	88	87	86	85	84	83	82	81	80	15
16	94	93	92	91	90	89	88	87	86	85	84	83	82	16
17	96	95	95	93	92	91	90	89	88	87	86	85	84	17
18	99	98	97	96	95	94	92	91	90	89	88	87	86	18
19	102	101	100	98	97	96	95	94	92	91	90	89	88	19
20	105	104	103	102	100	99	98	97	95	94	93	91	90	20
21	109	108	107	105	104	103	102	100	98	97	96	94	93	21
22	113	112	111	110	109	107	106	104	103	101	99	98	96	22
23	118	117	116	115	114	112	111	110	108	106	105	103	101	23
24	125	124	123	122	121	120	119	117	116	114	112	110	108	24
25			Awa	rd >13	1 for all	scores	in this	area.			129	126	123	25
	7:03	7:04	7:05	7:06	7:07	7:08	7:09	7:10	7:11	8:00	8:01	8:02	8:03	

# 2 Spring

Raw					Age i	n year:	s and a	omple	ted m	onths					Raw
score	6:05	6:06	6:07	6:08	6:09	6:10	6:11	7:00	7:01	7:02	7:03	7:04	7:05	7:06	score
0					Awaı	d <69	for all :	scores	in this	area.					0
1	75	74	73	71	70										1
2	79	77	76	74	73	71	70								2
3	81	80	79	77	76	74	73	71	70						3
4	83	82	81	80	79	77	76	75	73	72	70				4
5	84	83	82	82	81	80	79	77	76	75	73	72	70		5
6	86	85	84	83	82	82	81	80	78	77	76	75	73	72	6
7	87	86	86	85	84	83	82	82	81	80	78	77	76	75	7
8	89	88	87	86	86	85	84	83	82	82	81	80	78	77	8
9	91	90	89	88	87	86	86	85	84	83	82	82	81	80	9
10	92	91	90	90	89	88	87	86	86	85	84	83	82	82	10
11	94	93	92	91	91	90	89	88	87	87	86	85	84	83	11
12	96	95	94	93	92	92	91	90	89	88	87	87	86	85	12
13	97	96	95	95	94	93	93	92	91	90	89	88	88	87	13
14	98	98	97	96	96	95	94	94	93	92	91	90	89	88	14
15	100	99	98	98	97	97	96	95	94	94	93	92	91	90	15
16	101	100	99	99	99	98	98	97	96	95	95	94	93	92	16
17	103	102	100	100	100	99	99	99	98	97	97	96	95	94	17
18	104	103	102	102	101	101	100	100	99	99	98	98	97	96	18
19	105	104	103	103	102	102	102	101	101	100	100	99	99	98	19
20	108	107	105	104	104	103	103	103	102	102	101	101	100	99	20
21	110	109	107	107	106	106	105	104	104	103	103	102	102	101	21
22	112	111	109	109	109	108	108	107	106	106	105	104	103	103	22
23	115	114	112	111	111	110	110	109	109	108	108	107	106	106	23
24	118	117	114	114	114	113	112	112	112	111	110	110	109	109	24
25	122	121	118	117	117	116	116	115	115	114	114	113	112	112	25
26	127	125	122	122	121	121	120	120	119	119	118	117	117	116	26
27			127	126	126	125	125	124	124	124	123	123	122	122	27
28										130	130	130	130	129	28
29					Awar	d >131	for all	scores	in this	area.					29
30															30
	6:05	6:06	6:07	6:08	6:09	6:10	6:11	7:00	7:01	7:02	7:03	7:04	7:05	7:06	

# 2 Spring (cont.)

Raw		•		A	ge in y	ears a	nd com	pleted	month	S				Daw
score	7:07	7:08	7:09	7:10	7:11	8:00	8:01	8:02	8:03	8:04	8:05	8:06	8:07	Raw score
0														0
1														1
2														2
3					Award	<69 for	all scor	es in th	nis area					3
4														4
5														5
6	70													6
7	73	72	71	69										7
8	76	75	73	72	71	69								8
9	78	77	76	75	73	72	71	70						9
10	81	80	78	77	76	75	73	72	71	70				10
11	82	82	81	80	78	77	76	75	73	72	71	70		11
12	84	83	82	82	81	80	78	77	76	75	74	72	71	12
13	86	85	84	83	82	82	81	80	78	77	76	75	74	13
14	88	87	86	85	84	83	82	82	81	80	78	77	76	14
15	89	89	88	87	86	85	84	83	82	82	81	80	78	15
16	91	90	90	89	88	87	86	85	84	83	82	82	81	16
17	93	93	92	91	90	89	88	87	86	85	84	83	82	17
18	95	95	94	93	92	91	90	89	88	87	86	85	84	18
19	98	97	96	95	94	93	92	91	90	89	88	87	86	19
20	99	99	98	97	96	95	94	93	92	91	90	89	88	20
21	101	100	99	99	98	98	97	96	95	94	93	91	90	21
22	102	102	101	101	100	99	99	98	97	96	95	94	93	22
23	105	104	103	103	102	101	101	100	99	99	98	97	95	23
24	108	107	107	106	104	104	103	102	102	101	100	99	98	24
25	111	110	110	109	108	107	107	106	104	103	103	102	101	25
26	115	115	114	113	112	111	111	110	109	108	107	105	104	26
27	121	120	120	119	118	117	116	115	114	113	112	111	110	27
28	129	128	128	127	126	125	125	124	123	122	121	120	118	28
29								130	129	129	128	128	127	29
30						131 fo			his area	1.				30
	7:07	7:08	7:09	7:10	7:11	8:00	8:01	8:02	8:03	8:04	8:05	8:06	8:07	

#### 2 Summer

Denve				А	.ge in y	ears a	nd com	pleted	month	IS		1		Dente
Raw score	6:09	6:10	6:11	7:00	7:01	7:02	7:03	7:04	7:05	7:06	7:07	7:08	7:09	Raw score
0														0
1					Award •	<69 for	all scro	es in th	nis area					1
2	70	70												2
3	76	75	74	73	72	72	71	71	70	70	69			3
4	80	79	78	77	76	76	75	74	73	73	72	72	71	4
5	83	82	81	80	79	78	78	77	76	76	75	75	74	5
6	85	84	84	83	82	81	80	80	79	78	78	77	76	6
7	87	86	86	85	84	83	83	82	81	81	80	79	79	7
8	88	88	87	87	86	85	85	84	83	83	82	81	81	8
9	90	90	89	89	88	87	86	86	85	85	84	83	83	9
10	92	92	91	90	90	89	88	87	87	86	86	85	84	10
11	94	94	93	92	91	91	90	89	89	88	87	86	86	11
12	96	96	95	94	93	92	92	91	90	90	89	88	87	12
13	98	97	97	96	95	94	94	93	92	91	91	90	89	13
14	100	99	98	98	97	96	96	95	94	93	92	92	91	14
15	101	101	100	99	99	98	97	97	96	95	94	93	93	15
16	103	103	102	101	101	100	99	99	98	97	96	95	95	16
17	105	105	104	103	103	102	101	100	100	99	98	98	97	17
18	108	107	106	106	105	104	103	103	102	101	100	99	99	18
19	109	109	108	107	107	106	106	105	104	103	102	102	101	19
20	111	111	110	110	109	108	108	107	107	106	105	104	103	20
21	113	113	112	112	111	111	110	110	109	108	107	107	106	21
22	117	116	116	115	114	113	113	112	111	111	110	109	108	22
23	119	118	118	117	117	116	116	115	115	114	113	112	111	23
24	121	121	120	120	119	119	118	118	117	117	116	116	115	24
25	124	124	123	123	123	122	122	121	121	120	119	119	118	25
26	127	127	127	127	126	126	126	125	125	124	124	123	123	26
27				131	130	130	130	130	130	129	129	129	128	27
28														28
29				А	ward >	131 for	all sco	res in t	his area	J.				29
30														30
	6:09	6:10	6:11	7:00	7:01	7:02	7:03	7:04	7:05	7:06	7:07	7:08	7:09	

#### 2 Summer (cont.)

David		1		Age	e in yeα	rs and o	complet	ted moi	nths				Denu
Raw score	7:10	7:11	8:00	8:01	8:02	8:03	8:04	8:05	8:06	8:07	8:08	8:09	Raw score
0													0
1				Aw	ard <69	for all	scores i	n this aı	rea.				1
2													2
3													3
4	71	71	70	70	70	70	69						4
5	73	73	73	72	72	72	71	71	71	70	70	70	5
6	76	75	75	74	74	74	73	73	73	72	72	72	6
7	78	77	77	76	76	76	75	75	74	74	74	73	7
8	80	79	79	78	78	77	77	76	76	76	75	75	8
9	82	81	81	80	80	79	79	78	78	77	77	76	9
10	84	83	83	82	81	81	80	80	79	79	78	78	10
11	85	85	84	84	83	82	82	81	81	80	80	80	11
12	87	86	86	85	85	84	83	83	82	82	81	81	12
13	88	88	87	87	86	85	85	84	84	83	83	82	13
14	90	89	89	88	87	87	86	86	85	85	84	84	14
15	92	91	90	90	89	88	88	87	87	86	86	85	15
16	94	93	92	91	91	90	89	89	88	87	87	86	16
17	96	95	94	93	92	92	91	90	90	89	88	88	17
18	98	97	96	95	95	94	93	92	91	91	90	89	18
19	100	99	98	98	97	96	95	94	93	92	92	91	19
20	102	101	100	100	99	98	97	96	95	94	94	93	20
21	105	104	103	102	101	100	99	98	98	97	96	95	21
22	107	107	106	105	104	103	102	101	100	99	98	97	22
23	111	110	109	108	107	106	105	104	103	102	101	99	23
24	114	113	112	111	110	109	108	107	106	105	104	103	24
25	118	117	117	116	115	113	112	111	110	109	108	107	25
26	122	121	121	120	119	118	117	117	116	114	112	111	26
27	128	127	127	126	126	125	124	123	122	121	119	118	27
28				130	130	130	129	129	128	127	126	125	28
29											130	130	29
30				Awo	ard >13	1 for all	scores i	n this a	rea.				30
	7:10	7:11	8:00	8:01	8:02	8:03	8:04	8:05	8:06	8:07	8:08	8:09	

#### 3 Autumn

Raw					Age i	in year	s and o	comple	ted mo	onths					Raw
score	7:01	7:02	7:03	7:04	7:05	7:06	7:07	7:08	7:09	7:10	7:11	8:00	8:01	8:02	score
0															0
1					Awa	rd <69	for all	scores	in this d	area.					1
2	71														2
3	73	72	71	70											3
4	76	75	73	72	71	71	70								4
5	78	77	76	75	74	73	72	71	71	70					5
6	80	79	78	77	76	75	74	74	73	72	71	70	70		6
7	81	81	79	79	78	77	76	76	75	74	73	73	72	71	7
8	83	82	81	81	80	79	78	77	77	76	75	75	74	73	8
9	85	84	83	82	82	81	80	79	78	78	77	76	76	75	9
10	87	86	85	84	83	83	82	81	80	79	79	78	77	77	10
11	88	87	86	86	85	84	83	83	82	81	80	80	79	78	11
12	89	89	88	87	86	86	85	84	84	83	82	81	81	80	12
13	91	90	89	89	88	87	86	86	85	85	84	83	82	82	13
14	93	92	91	90	90	89	88	87	87	86	85	85	84	83	14
15	94	93	92	92	91	90	90	89	88	87	87	86	85	85	15
16	95	94	94	93	92	92	91	90	90	89	88	87	87	86	16
17	97	96	95	94	94	93	92	92	91	91	90	89	88	88	17
18	99	98	97	96	95	94	94	93	93	92	91	91	90	89	18
19	100	99	98	98	97	96	95	95	94	93	93	92	91	91	19
20	102	101	100	99	99	98	97	96	95	95	94	93	93	92	20
21	103	102	101	101	100	99	99	98	97	96	96	95	94	94	21
22	105	104	103	102	102	101	100	100	99	98	98	97	96	95	22
23	106	106	105	104	103	103	102	101	100	100	99	99	98	97	23
24	108	107	106	106	105	104	104	103	102	101	101	100	99	99	24
25	110	109	108	107	107	106	106	105	104	103	103	102	101	100	25
26	112	111	110	109	109	108	107	107	106	105	104	104	103	102	26
27	114	113	112	111	110	110	109	108	108	107	107	106	105	104	27
28	117	116	114	113	112	112	111	110	110	109	108	108	107	106	28
29	120	119	117	116	116	115	113	112	112	111	110	110	109	108	29
30	122	121	119	119	118	117	117	116	115	114	113	112	111	110	30
31	125	124	122	121	120	120	119	118	118	117	116	116	114	113	31
32	128	127	125	124	123	123	122	121	120	120	119	118	117	117	32
33			128	127	127	126	125	124	124	123	122	121	120	119	33
34					130	130	129	128	127	127	126	125	124	123	34
35										131	130	129	128	127	35
36															36
37															37
38					Awar	d >131	for all	scores	in this	area.					38
39															39
40															40
	7:01	7:02	7:03	7:04	7:05	7:06	7:07	7:08	7:09	7:10	7:11	8:00	8:01	8:02	

#### 3 Autumn (cont.)

Raw					Age in y	years a	nd com	pleted	month	5				Raw
score	8:03	8:04	8:05	8:06	8:07	8:08	8:09	8:10	8:11	9:00	9:01	9:02	9:03	score
0														0
1														1
2														2
3					Award	<69 for	all scor	es in th	is area.					3
4														4
5														5
6														6
7	70	70												7
8	72	72	71	70	70	69								8
9	74	74	73	72	72	71	70	70	69					9
10	76	75	75	74	73	73	72	71	71	70	70	69		10
11	78	77	76	76	75	74	74	73	73	72	71	71	70	11
12	79	79	78	77	77	76	76	75	74	74	73	72	72	12
13	81	80	80	79	78	78	77	76	76	75	75	74	73	13
14	83	82	81	80	80	79	78	78	77	77	76	76	75	14
15	84	83	83	82	81	81	80	79	79	78	78	77	76	15
16	86	85	84	84	83	82	81	81	80	80	79	78	78	16
17	87	86	86	85	84	84	83	82	82	81	80	80	79	17
18	88	88	87	86	86	85	85	84	83	82	82	81	81	18
19	90	89	89	88	87	86	86	85	85	84	83	83	82	19
20	91	91	90	90	89	88	87	87	86	85	85	84	83	20
21	93	92	92	91	90	90	89	88	87	87	86	85	85	21
22	94	94	93	92	92	91	90	90	89	88	87	87	86	22
23	96	95	94	94	93	92	92	91	91	90	89	88	87	23
24	98	97	96	95	95	94	93	93	92	91	91	90	89	24
25	100	99	98	97	96	96	95	94	93	93	92	91	91	25
26	101	101	100	99	98	98	97	96	95	94	93	93	92	26
27	103	102	102	101	100	99	99	98	97	96	95	94	94	27
28	106	105	104	103	102	101	100	100	99	98	97	96	95	28
29	107	107	106	105	104	103	102	102	101	100	99	98	97	29
30	110	109	108	107	107	106	105	104	103	102	101	100	99	30
31	112	111	110	110	109	108	107	106	105	104	103	102	101	31
32	116	115	113	112	111	110	109	109	108	107	106	105	104	32
33	119	118	117	116	115	114	112	111	110	109	108	108	107	33
34	122	121	120	119	118	118	117	116	114	112	111	110	109	34
35	126	125	124	123	122	121	120	119	118	117	116	115	113	35
36		130	129	128	127	126	125	124	123	122	120	119	118	36
37								130	129	127	126	124	123	37
38													130	38
39					Award	>131 fo	r all sco	res in th	is area.					39
40														40
	8:03	8:04	8:05	8:06	8:07	8:08	8:09	8:10	8:11	9:00	9:01	9:02	9:03	

# 3 Spring

Raw			1	1	Age i	in year	s and o	comple	eted m	onths					Raw
score	7:05	7:06	7:07	7:08	7:09	7:10	7:11	8:00	8:01	8:02	8:03	8:04	8:05	8:06	score
0															0
1					Awa	rd <69	for all	scores	in this	area.					1
2	71	70													2
3	73	72	70	69											3
4	75	74	73	72	71	70									4
5	77	76	75	74	73	72	71	70	70						5
6	78	77	77	76	75	74	73	73	72	71	70	69			6
7	80	79	78	77	77	76	75	75	74	73	72	71	71	70	7
8	81	80	79	79	78	77	77	76	76	75	74	73	73	72	8
9	83	82	81	80	80	79	78	78	77	76	76	75	74	74	9
10	84	83	82	82	81	80	80	79	78	78	77	77	76	75	10
11	86	85	84	83	83	82	81	80	80	79	79	78	77	77	11
12	87	86	85	85	84	83	83	82	81	81	80	79	79	78	12
13	89	88	87	86	86	85	84	84	83	82	81	81	80	79	13
14	90	89	88	88	87	86	86	85	84	84	83	82	81	81	14
15	92	91	90	89	88	88	87	86	86	85	85	84	83	82	15
16	93	92	91	91	90	89	89	88	87	87	86	85	85	84	16
17	95	94	93	92	91	91	90	89	89	88	87	87	86	85	17
18	96	95	95	94	93	92	92	91	90	90	89	88	87	87	18
19	98	97	96	95	95	94	93	93	92	91	90	90	89	88	19
20	99	98	97	97	96	96	95	94	94	93	92	91	91	90	20
21	101	100	99	98	98	97	97	96	95	95	94	93	93	92	21
22	103	102	101	100	99	99	98	98	97	96	96	95	94	94	22
23	104	103	102	102	101	101	100	99	99	98	97	97	96	96	23
24	105	104	103	103	103	102	102	101	100	100	99	99	98	97	24
25	107	106	105	104	104	104	103	103	102	102	101	100	100	99	25
26	108	107	106	106	105	105	105	104	104	103	103	102	102	101	26
27	110	109	108	107	107	107	106	106	105	105	104	104	103	103	27
28	112	111	110	109	109	108	108	108	107	107	106	106	105	105	28
29	114	113	112	111	111	110	110	109	109	109	108	108	107	107	29
30	116	115	114	113	113	112	112	112	111	111	110	110	109	109	30
31	119	118	116	115	115	115	114	114	114	113	113	112	112	111	31
32	121	120	118	118	117	117	117	117	116	116	116	115	115	114	32
33	123	122	121	120	119	119	119	119	119	119	118	118	118	117	33
34	124	123	122	122	122	122	122	121	121	121	121	121	121	121	34
35	126	125	124	124	124	124	124	124	124	124	124	124	124	124	35
36	128	128	127	127	127	127	127	127	127	127	127	127	127	127	36
37 38	130	130	130	130	130	130	130	130	130	130	130	130	130	130	37
					A	d \ 1 2 1	for all		in thi-	araa					38
39					Awar	u ≥131	ior all	scores	in this	ured.					39 ((0
40	7:05	7.06	7.07	7.00	7:09	7:10	7:11	8:00	8:01	0.02	8:03	8:04	8:05	9.06	40
	7:05	7:06	7:07	7:08	7:09	7:10	7:11	0:00	0:01	8:02	0:03	0:04	0:05	8:06	

# 3 Spring (cont.)

Raw					Age in y	years a	nd com	pleted	month	s			•	Raw
score	8:07	8:08	8:09	8:10	8:11	9:00	9:01	9:02	9:03	9:04	9:05	9:06	9:07	score
0														0
1														1
2														2
3														3
4					Awarc	l <69 foi	<sup>r</sup> all scor	es in thi	s area.					4
5														5
6														6
7	69													7
8	71	70	70											8
9	73	72	71	71	70	69								9
10	75	74	73	73	72	71	71	70	69					10
11	76	76	75	74	74	73	72	72	71	70	70			11
12	78	77	76	76	75	75	74	73	73	72	71	71	70	12
13	79	78	78	77	77	76	75	75	74	73	73	72	72	13
14	80	80	79	78	78	77	77	76	76	75	74	74	73	14
15	82	81	80	80	79	79	78	77	77	76	76	75	75	15
16	83	82	82	81	80	80	79	79	78	78	77	77	76	16
17	85	84	83	83	82	81	80	80	79	79	78	78	77	17
18	86	86	85	84	83	83	82	81	81	80	79	79	78	18
19	88	87	86	86	85	84	84	83	82	81	81	80	80	19
20	89	88	88	87	86	86	85	84	84	83	82	81	81	20
21	91	90	89	89	88	87	87	86	85	85	84	83	82	21
22	93	92	91	90	90	89	88	87	87	86	85	85	84	22
23	95	94	93	92	91	91	90	89	88	88	87	86	85	23
24	97	96	95	94	94	93	92	91	90	89	88	88	87	24
25	98	98	97	96	96	95	94	93	92	91	90	89	89	25
26	100	100	99	98	97	97	96	95	94	93	92	92	91	26
27	102	102	101	100	100	99	98	97	96	96	95	94	93	27
28	104	104	103	103	102	101	100	100	99	98	97	96	95	28
29	106	106	105	105	104	103	103	102	101	100	99	98	98	29
30	108	108	107	107	106	106	105	104	104	103	102	101	100	30
31	111	110	110	109	109	108	107	107	106	105	105	104	103	31
32	114	113	113	112	112	111	111	110	109	108	108	107	106	32
33	117	117	116	116	116	115	114	114	113	112	112	111	110	33
34	120	120	120	120	119	119	119	118	118	117	117	116	115	34
35	124	124	124	123	123	123	123	123	123	123	122	122	122	35
36	127	127	127	127	127	127	127	127	127	127	126	126	126	36
37	130	130	130	130	130	130	130	130	130	130	130	130	130	37
38														38
39					Award	>131 fc	or all sco	res in th	is area.					39
40														40
	8:07	8:08	8:09	8:10	8:11	9:00	9:01	9:02	9:03	9:04	9:05	9:06	9:07	

#### 3 Summer

Raw				А	.ge in y	ears a	nd com	pleted	month	าร				Raw
score	7:09	7:10	7:11	8:00	8:01	8:02	8:03	8:04	8:05	8:06	8:07	8:08	8:09	score
0														0
1														1
2					Award «	<69 for	all scor	res in th	nis area	l.				2
3														3
4	69	69												4
5	72	71	71	70	70	69								5
6	74	73	73	72	72	71	71	70	70	70				6
7	76	76	75	74	74	73	73	72	72	71	71	71	70	7
8	78	77	77	76	76	75	75	74	74	73	73	72	72	8
9	80	79	79	78	78	77	77	76	76	75	75	74	74	9
10	81	81	80	80	79	79	78	78	77	77	76	76	75	10
11	83	82	82	81	81	80	80	79	79	78	78	77	77	11
12	84	84	83	83	82	82	81	81	81	80	80	79	79	12
13	86	85	85	84	84	83	83	82	82	82	81	81	80	13
14	88	87	87	86	85	85	84	84	83	83	82	82	82	14
15	89	89	88	88	87	87	86	85	85	84	84	83	83	15
16	91	90	90	89	89	88	88	87	86	86	85	85	84	16
17	92	92	91	91	90	90	89	89	88	88	87	86	86	17
18	94	94	93	93	92	91	91	90	90	89	89	88	87	18
19	96	96	95	95	94	93	93	92	91	91	90	90	89	19
20	98	97	97	96	96	95	95	94	93	93	92	91	91	20
21	100	99	99	98	97	97	96	96	95	95	94	93	93	21
22	101	101	100	100	99	99	98	98	97	96	96	95	95	22
23	104	103	103	102	101	101	100	99	99	98	98	97	96	23
24	105	105	104	104	103	103	102	101	101	100	99	99	98	24
25	107	107	106	106	105	105	104	103	103	102	102	101	100	25
26	110	110	109	108	108	107	106	105	105	104	104	103	102	26
27	112	112	111	111	110	110	109	108	107	106	106	105	104	27
28	115	114	114	113	112	112	111	111	110	109	109	108	107	28
29	117	117	116	115	115	114	114	113	112	112	111	110	110	29
30	120	120	119	118	118	117	116	115	115	114	114	113	112	30
31	123	122	122	121	121	120	120	119	118	117	116	116	115	31
32	126	125	125	124	124	123	122	122	121	121	120	119	119	32
33	129	128	128	127	127	126	126	125	124	124	123	123	122	33
34			131	130	130	129	129	128	128	127	127	126	125	34
35										131	130	130	129	35
36														36
37														37
38				A	ward >	131 foi	r all sco	res in t	his are	α.				38
39														39
40														40
	7:09	7:10	7:11	8:00	8:01	8:02	8:03	8:04	8:05	8:06	8:07	8:08	8:09	

#### 3 Summer (cont.)

Raw				Age	in yea	rs and a	complet	ted moi	nths				Raw
score	8:10	8:11	9:00	9:01	9:02	9:03	9:04	9:05	9:06	9:07	9:08	9:09	score
0													0
1													1
2													2
3				Av	vard <6	9 for all	scores	in this c	irea.				3
4													4
5													5
6													6
7	70	69											7
8	71	71	71	70	70	69							8
9	73	73	72	72	71	71	71	70	70	70	69		9
10	75	74	74	73	73	73	72	72	71	71	71	70	10
11	76	76	76	75	75	74	74	73	73	73	72	72	11
12	78	78	77	77	76	76	75	75	74	74	74	73	12
13	80	79	79	78	78	77	77	76	76	76	75	75	13
14	81	81	80	80	79	79	78	78	77	77	77	76	14
15	83	82	82	81	81	80	80	79	79	78	78	78	15
16	84	83	83	83	82	82	81	81	80	80	79	79	16
17	85	85	84	84	83	83	83	82	82	81	81	80	17
18	87	86	86	85	85	84	84	83	83	83	82	82	18
19	89	88	87	87	86	86	85	85	84	84	83	83	19
20	90	90	89	88	88	87	87	86	86	85	85	84	20
21	92	91	91	90	89	89	88	88	87	87	86	86	21
22	94	93	93	92	91	91	90	89	89	88	88	87	22
23	96	95	95	94	93	93	92	91	91	90	89	89	23
24	98	97	96	96	95	95	94	93	92	92	91	91	24
25	99	99	98	98	97	96	96	95	95	94	93	92	25
26	102	101	100	100	99	98	98	97	96	96	95	95	26
27	104	103	103	102	101	100	100	99	98	98	97	96	27
28	106	105	105	104	103	103	102	101	101	100	99	98	28
29	109	108	107	107	106	105	104	104	103	102	102	101	29
30	112	111	110	110	109	108	107	106	105	105	104	103	30
31	114	114	113	112	112	111	110	109	108	108	107	106	31
32	118	117	116	115	114	114	113	112	111	111	110	109	32
33	121	121	120	119	118	117	116	115	115	114	113	112	33
34	125	124	123	123	122	121	120	120	119	118	117	115	34
35	128	128	127	126	126	125	124	123	123	122	121	120	35
36				131	130	129	129	128	127	126	125	124	36
37											130	130	37
38													38
39				Awo	ard >13	1 for all	scores	in this a	rea.				39
40													40
	8:10	8:11	9:00	9:01	9:02	9:03	9:04	9:05	9:06	9:07	9:08	9:09	

#### 4 Autumn

Raw					Age i	n com	pleted	years	and m	onths					Raw
score	8:01	8:02	8:03	8:04	8:05	8:06	8:07	8:08	8:09	8:10	8:11	9:00	9:01	9:02	score
0															0
1	72	71			Awaı	rd <69	for all	scores	in this	area.					1
2	74	73	71	70											2
3	78	76	74	73	72	71	70								3
4	81	79	78	76	75	74	73	72	71	70	69				4
5	83	82	81	79	78	77	76	75	74	73	72	71	70	70	5
6	84	83	83	82	81	80	79	78	77	76	75	74	73	72	6
7	86	85	84	83	83	82	81	80	79	78	77	76	75	74	7
8	88	87	86	85	84	84	83	82	81	81	80	79	78	77	8
9	89	88	88	87	86	85	84	84	83	82	82	81	80	79	9
10	91	90	89	88	88	87	86	85	85	84	83	82	82	81	10
11	93	92	91	90	89	88	88	87	86	85	85	84	83	83	11
12	94	93	92	92	91	90	89	88	88	87	86	85	85	84	12
13	96	95	94	93	92	92	91	90	89	88	88	87	86	85	13
14	98	97	96	95	94	93	92	92	91	90	89	88	88	87	14
15	99	98	97	96	96	95	94	93	92	92	91	90	89	88	15
16	101	100	99	98	97	96	96	95	94	93	92	92	91	90	16
17	102	101	100	99	99	98	97	96	96	95	94	93	92	92	17
18	103	102	101	101	100	99	99	98	97	96	96	95	94	93	18
19	105	104	103	102	102	101	100	99	99	98	97	96	96	95	19
20	106	105	104	104	103	102	102	101	100	100	99	98	97	96	20
21	108	106	105	105	104	104	103	103	102	101	100	100	99	98	21
22	109	108	107	106	106	105	105	104	103	103	102	101	100	100	22
23	110	109	108	108	107	107	106	105	105	104	104	103	102	101	23
24	112	111	110	109	109	108	107	107	106	106	105	104	104	103	24
25	114	113	112	111	111	110	109	109	108	107	107	106	105	105	25
26	116	115	114	113	113	112	111	111	110	109	108	108	107	106	26
27	118	117	116	115	115	114	114	113	112	111	111	110	109	108	27
28	120	119	117	117	117	116	116	115	114	114	113	112	111	110	28
29	122	121	119	119	118	118	117	117	116	116	115	115	114	113	29
30	123	122	121	121	120	120	119	119	118	118	117	117	116	116	30
31	126	124	123	123	123	122	122	121	121	120	119	119	118	118	31
32	128	127	126	125	125	124	124	124	123	123	122	122	121	120	32
33		130	128	128	128	127	127	126	126	126	125	124	124	123	33
34				131	131	130	130	130	129	129	128	128	128	127	34
35															35
36															36
37					Awar	d >131	for all	scores	in this	area.					37
38															38
39															39
40															40
	8:01	8:02	8:03	8:04	8:05	8:06	8:07	8:08	8:09	8:10	8:11	9:00	9:01	9:02	

#### 4 Autumn (cont.)

Raw					Age in d	complet	ted yec	ars and	month	S				Raw
score	9:03	9:04	9:05	9:06	9:07	9:08	9:09	9:10	9:11	10:00	10:01	10:02	10:03	score
0														0
1														1
2					Awarc	l <69 fo	r all scoi	res in thi	is area.					2
3														3
4														4
5														5
6	71	71	70	69										6
7	74	73	72	71	71	70	70							7
8	76	75	74	73	73	72	71	71	70	70	69			8
9	78	77	76	75	75	74	73	73	72	71	71	70	70	9
10	80	79	79	78	77	76	75	75	74	73	73	72	72	10
11	82	81	81	80	79	78	77	76	76	75	74	74	73	11
12	83	83	82	82	81	80	79	78	78	77	76	75	75	12
13	85	84	83	83	82	82	81	80	80	79	78	77	77	13
14	86	85	85	84	84	83	82	82	81	81	80	79	78	14
15	88	87	86	86	85	84	84	83	83	82	81	81	80	15
16	89	88	88	87	86	86	85	84	84	83	83	82	82	16
17	91	90	89	88	88	87	86	86	85	84	84	83	83	17
18	92	92	91	90	89	88	88	87	86	86	85	84	84	18
19	94	93	92	92	91	90	89	88	88	87	86	86	85	19
20	96	95	94	93	92	91	91	90	89	88	88	87	86	20
21	97	97	96	95	94	93	92	91	91	90	89	88	88	21
22	99	98	97	97	96	95	94	93	92	91	91	90	89	22
23	101	100	99	98	97	97	96	95	94	93	92	91	91	23
24	102	101	101	100	99	98	97	97	96	95	94	93	92	24
25	104	103	102	102	101	100	99	98	97	97	96	95	94	25
26	106	105	104	103	103	102	101	100	99	98	98	97	96	26
27	107	107	106	105	104	104	103	102	101	100	99	98	98	27
28	110	109	108	107	106	105	105	104	103	102	101	100	99	28
29	112	111	110	109	108	107	107	106	105	104	103	102	101	29
30	115	114	113	112	111	110	109	108	107	106	105	105	104	30
31	117	117	116	115	114	113	112	111	110	109	108	107	106	31
32	120	119	118	118	117	116	115	114	113	112	111	110	108	32
33	123	122	122	121	120	119	118	118	117	116	115	114	112	33
34	126	126	125	124	124	123	122	122	121	120	119	118	117	34
35	131	130	130	129	129	128	127	126	126	125	124	123	121	35
36											131	130	129	36
37					A	\$101 £-		الد من ممه	ia arres					37
38					Award	~131TO	i uli sco	res in th	is area.					38
39														39
40	0.02	0.07	0.05	0.00	0.07	0.00	0.00	0.10	0.11	10.00	10.01	10.02	10:03	40
	9:03	9:04	9:05	9:06	9:07	9:08	9:09	9:10	9:11	10:00	10:01	10:02	10:03	

# 4 Spring

Raw				1	Age i	n year	s and a	comple	ted m	onths					Raw
score	8:05	8:06	8:07	8:08	8:09	8:10	8:11	9:00	9:01	9:02	9:03	9:04	9:05	9:06	score
0															0
1															1
2															2
3					Awa	rd <69	for all :	scores	in this	area.					3
4															4
5															5
6															6
7	71	70	70	70	69										7
8	73	72	72	72	71	71	71	70	70	70	69				8
9	75	75	74	74	73	73	72	72	72	71	71	71	70	70	9
10	77	77	76	76	75	75	74	74	73	73	73	72	72	72	10
11	79	78	78	77	77	76	76	76	75	75	74	74	74	73	11
12	81	80	80	79	79	78	78	77	77	76	76	75	75	75	12
13	82	82	81	81	80	80	79	79	78	78	77	77	76	76	13
14	84	83	83	82	82	81	81	80	80	79	79	78	78	77	14
15	85	85	84	83	83	83	82	82	81	81	80	80	79	79	15
16	87	86	85	85	84	84	83	83	82	82	82	81	81	80	16
17	88	88	87	86	86	85	85	84	84	83	83	82	82	81	17
18	90	89	88	88	87	87	86	86	85	85	84	84	83	83	18
19	91	91	90	89	89	88	88	87	87	86	86	85	84	84	19
20	93	92	92	91	90	90	89	89	88	88	87	86	86	85	20
21	94	94	93	93	92	92	91	90	90	89	88	88	87	87	21
22	96	95	95	94	94	93	93	92	91	91	90	89	89	88	22
23	97	97	96	96	95	94	94	93	93	92	92	91	90	90	23
24	99	99	98	97	97	96	96	95	94	94	93	93	92	92	24
25	101	100	100	99	99	98	98	97	96	96	95	94	94	93	25
26	103	102	102	101	101	100	99	99	98	98	97	96	96	95	26
27	105	104	103	103	102	102	101	101	100	99	99	98	98	97	27
28	107	107	106	105	105	104	103	103	102	101	101	100	100	99	28
29	110	109	109	108	107	107	106	105	104	104	103	102	102	101	29
30	113	112	112	111	110	110	109	108	107	107	106	105	104	103	30
31	116	115	114	114	113	113	112	111	111	110	109	108	107	107	31
32	119	119	118	117	117	116	115	115	114	113	112	112	111	110	32
33	123	122	122	121	121	120	119	119	118	117	116	116	115	114	33
34	127	126	126	125	125	124	124	123	122	122	121	120	119	119	34
35		131	130	130	130	129	129	128	127	127	126	126	125	124	35
36														130	36
37 38					A	4 2 1 2 1	for all		in this	area					37 38
38					Awar	u ~ 13 l		scores	III LIIS	area.					38 39
- 39 - 40															39 40
40	9.0E	8:06	8:07	8:08	0.00	0.10	0.11	0.00	0.01	0.02	9:03	9:04	9:05	9:06	40
	8:05	0:00	0:07	0:08	0:09	0.10	0.11	9:00	9:01	9:02	9:03	9:04	9:05	9:00	

# 4 Spring (cont.)

Raw				-	Age in y	/ears ai	nd com	pleted	month	s				Raw
score	9:07	9:08	9:09	9:10	9:11	10:00	10:01	10:02	10:03	10:04	10:05	10:06	10:07	score
0														0
1														1
2														2
3														3
4					Award	<69 for	all scor	es in thi	s area.					4
5														5
6														6
7														7
8														8
9	70	70	70	69										9
10	71	71	71	71	70	70	70	70	70	69	69			10
11	73	73	72	72	72	71	71	71	71	71	70	70	70	11
12	74	74	74	73	73	73	72	72	72	72	72	71	71	12
13	76	75	75	75	74	74	74	73	73	73	73	72	72	13
14	77	77	76	76	76	75	75	75	74	74	74	73	73	14
15	78	78	78	77	77	76	76	76	75	75	75	75	74	15
16	80	79	79	78	78	78	77	77	77	76	76	76	75	16
17	81	81	80	80	79	79	79	78	78	77	77	77	76	17
18	82	82	81	81	81	80	80	79	79	79	78	78	78	18
19	84	83	83	82	82	81	81	81	80	80	79	79	79	19
20	85	84	84	83	83	83	82	82	81	81	81	80	80	20
21	86	86	85	85	84	84	83	83	83	82	82	81	81	21
22	88	87	87	86	86	85	85	84	84	83	83	82	82	22
23	89	89	88	88	87	86	86	85	85	84	84	84	83	23
24	91	90	90	89	89	88	87	87	86	86	85	85	84	24
25	93	92	91	91	90	89	89	88	88	87	87	86	86	25
26	94	94	93	93	92	91	91	90	89	89	88	88	87	26
27	96	95	95	94	94	93	92	92	91	90	90	89	89	27
28	98	98	97	96	95	95	94	93	93	92	92	91	90	28
29	100	100	99	98	98	97	96	95	95	94	93	93	92	29
30	103	102	101	101	100	99	98	98	97	96	95	94	94	30
31	106	105	104	103	102	102	101	100	99	99	98	97	96	31
32	109	108	107	106	106	104	103	103	102	101	100	99	99	32
33	113	112	111	111	110	108	107	106	105	104	103	102	101	33
34	118	117	116	115	114	113	112	111	110	109	107	106	105	34
35	123	122	122	121	120	119	118	116	115	114	113	112	110	35
36	130	129	128	128	127	126	125	124	123	121	120	119	117	36
37										131	130	129	128	37
38														38
39					Award	>131 foi	r all scor	es in thi	s area.					39
40														40
	9:07	9:08	9:09	9:10	9:11	10:00	10:01	10:02	10:03	10:04	10:05	10:06	10:07	

#### 4 Summer

Raw				А	ge in y	ears ar	nd com	pleted	month	าร				Raw
score	8:09	8:10	8:11	9:00	9:01	9:02	9:03	9:04	9:05	9:06	9:07	9:08	9:09	score
0														0
1				ļ	Award «	<69 for	all scor	es in th	nis area	l.				1
2	70	70												2
3	74	73	72	71	71	70	69							3
4	76	76	75	74	73	73	72	71	71	70	70			4
5	78	78	77	76	76	75	74	74	73	72	72	71	71	5
6	80	80	79	78	78	77	76	76	75	75	74	73	73	6
7	82	82	81	80	80	79	78	78	77	77	76	76	75	7
8	84	83	83	82	81	81	80	79	79	78	78	77	77	8
9	85	85	84	84	83	82	82	81	81	80	79	79	78	9
10	87	87	86	85	85	84	83	83	82	82	81	80	80	10
11	88	88	87	87	86	85	85	84	84	83	82	82	81	11
12	90	89	89	88	88	87	86	86	85	85	84	83	83	12
13	91	91	90	90	89	88	88	87	87	86	85	85	84	13
14	92	92	91	91	90	90	89	89	88	88	87	86	86	14
15	94	93	93	92	92	91	91	90	90	89	88	88	87	15
16	95	94	94	93	93	92	92	91	91	90	90	89	89	16
17	96	96	95	95	94	94	93	93	92	91	91	90	90	17
18	98	97	97	96	95	95	94	94	93	93	92	92	91	18
19	99	98	98	97	97	96	96	95	94	94	93	93	92	19
20	100	100	99	99	98	97	97	96	96	95	95	94	94	20
21	102	101	101	100	99	99	98	98	97	97	96	95	95	21
22	103	103	102	102	101	100	100	99	99	98	97	97	96	22
23	104	104	103	103	102	102	101	101	100	99	99	98	98	23
24	106	105	105	104	104	103	103	102	102	101	101	100	99	24
25	107	107	106	106	105	105	104	104	103	103	102	102	101	25
26	109	108	108	107	107	106	106	105	105	104	104	103	103	26
27	110	110	109	109	109	108	108	107	106	106	105	104	104	27
28 29	112	112	111	111	110	110	109	109	108	108	107	106	106	28 29
30	114 116	114 116	113 115	113 115	112 114	111 114	111 113	110 112	110 112	109 111	109 111	108 110	108 110	29 30
31	118	118	117	117	117	114	115	112	112	114	113	112	112	31
32	121	120	120	117	117	118	118	117	117	116	116	112	112	32
33	121	120	120	122	122	121	121	120	119	119	118	118	117	33
34	125	125	122	122	122	124	124	120	123	122	122	121	120	34
35	120	120	123	123	124	124	127	125	125	125	125	124	120	35
36	120	120	120	120	131	130	130	130	120	129	129	129	129	36
37									J	. 23	. 25	. 20	120	37
38														38
39				А	ward >	131 foi	all sco	res in t	his are	α.				39
40						2.101								40
	8:09	8:10	8:11	9:00	9:01	9:02	9:03	9:04	9:05	9:06	9:07	9:08	9:09	
										2.00	2.07	0.00	2.00	

#### 4 Summer (cont.)

Raw				Age	in yea	rs and a	complet	ed mor	nths				Raw
score	9:10	9:11	10:00	10:01	10:02	10:03	10:04	10:05	10:06	10:07	10:08	10:09	score
0													0
1													1
2				A	ward <6	9 for al	scores	in this d	area.				2
3													3
4													4
5	70	70	69										5
6	72	72	71	71	70	70	70						6
7	74	74	73	73	72	72	71	71	70	70	70	69	7
8	76	76	75	75	74	74	73	73	72	72	71	71	8
9	78	77	77	76	76	75	75	74	74	73	73	73	9
10	79	79	78	78	77	77	76	76	76	75	75	74	10
11	81	80	80	79	79	78	78	77	77	76	76	76	11
12	82	82	81	81	80	80	79	79	78	78	77	77	12
13	84	83	83	82	82	81	81	80	80	79	79	78	13
14	85	85	84	83	83	82	82	81	81	80	80	80	14
15	87	86	85	85	84	84	83	83	82	82	81	81	15
16	88	87	87	86	86	85	85	84	84	83	83	82	16
17	89	89	88	88	87	87	86	85	85	84	84	83	17
18	91	90	90	89	88	88	87	87	86	86	85	85	18
19	92	91	91	90	90	89	89	88	88	87	86	86	19
20	93	93	92	92	91	90	90	89	89	88	88	87	20
21	94	94	93	93	92	92	91	91	90	90	89	88	21
22	96	95	94	94	93	93	92	92	91	91	90	90	22
23	97	97	96	95	95	94	94	93	93	92	92	91	23
24	99	98	97	97	96	96	95	94	94	93	93	92	24
25	100	100	99	98	98	97	96	96	95	95	94	93	25
26	102	101	101	100	99	99	98	97	97	96	95	95	26
27	103	103	102	102	101	100	100	99	98	98	97	96	27
28	105	104	104	103	103	102	102	101	100	99	99	98	28
29	107	106	106	105	104	104	103	103	102	101	101	100	29
30	109	109	108	107	106	106	105	104	104	103	102	102	30
31	111	110	110	109	109	108	107	106	106	105	104	104	31
32	114	113	112	112	111	110	110	109	108	107	107	106	32
33	117	116	115	115	114	113	112	111	111	110	109	108	33
34	120	119	118	118	117	116	116	115	114	113	112	111	34
35	123	123	122	121	121	120	119	118	118	117	116	115	35
36	127	127	126	126	125	124	124	123	122	121	120	119	36
37			131	130	130	129	129	128	128	127	126	125	37
38											131	130	38
39				Awc	ard >13	1 for all	scores i	n this a	rea.				39
40													40
	9:10	9:11	10:00	10:01	10:02	10:03	10:04	10:05	10:06	10:07	10:08	10:09	

### 5 Autumn

Raw		•			Age i	n year	s and o	comple	eted m	onths					Raw
score	9:01	9:02	9:03	9:04	9:05	9:06	9:07	9:08	9:09	9:10	9:11	10:00	10:01	10:02	score
0															0
1															1
2					Awa	rd <69	for all	scores	in this	area.					2
3	71														3
4	75	73	71	70											4
5	77	76	75	74	72	71	70	69							5
6	79	78	77	76	76	75	73	72	71	71	70				6
7	81	80	79	78	77	77	76	75	74	73	72	72	71	70	7
8	83	82	81	80	79	79	78	77	76	76	75	74	73	72	8
9	85	84	83	82	81	80	80	79	78	77	77	76	76	75	9
10	86	85	84	83	83	82	81	81	80	79	78	78	77	77	10
11	88	87	86	85	84	83	83	82	81	81	80	79	79	78	11
12	89	88	87	87	86	85	84	83	83	82	82	81	80	80	12
13	90	89	89	88	87	87	86	85	84	84	83	82	82	81	13
14	92	91	90	89	89	88	87	87	86	85	84	84	83	82	14
15	93	92	92	91	90	89	89	88	87	86	86	85	84	84	15
16	94	93	93	92	91	91	90	89	89	88	87	86	86	85	16
17	96	95	94	93	93	92	91	91	90	89	89	88	87	86	17
18	97	96	95	95	94	93	93	92	91	91	90	89	89	88	18
19	98	97	97	96	95	95	94	93	93	92	91	91	90	89	19
20	100	99	98	97	97	96	95	95	94	93	93	92	91	91	20
21	101	100	99	99	98	97	97	96	95	95	94	93	93	92	21
22	102	102	101	100	99	99	98	97	97	96	95	95	94	93	22
23	103	103	102	102	101	100	99	99	98	97	97	96	95	94	23
24	105	104	103	103	102	102	101	100	99	99	98	97	97	96	24
25	106	105	105	104	103	103	102	102	101	100	99	99	98	97	25
26	108	107	106	105	105	104	104	103	102	102	101	100	99	99	26
27	110	109	108	107	106	105	105	104	104	103	102	102	101	100	27
28	111	110	109	109	108	107	106	106	105	104	104	103	102	102	28
29	113	112	111	110	110	109	108	108	107	106	105	104	104	103	29
30	114	113	112	112	111	111	110	109	109	108	107	106	105	105	30
31	117	116	114	113	113	112	111	111	110	110	109	108	107	106	31
32	119	118	116	116	115	114	113	112	112	111	111	110	109	108	32
33	121	120	119	118	117	116	116	115	114	113	112	112	111	110	33
34	124	123	121	120	119	119	118	117	116	116	115	114	113	112	34
35	127	126	124	123	122	121	120	120	119	118	117	116	115	114	35
36	130	128	126	126	125	124	123	123	122	121	120	119	118	117	36
37			129	128	128	127	126	126	125	124	123	122	121	120	37
38					130	130	129	128	128	127	126	125	125	124	38
39									131	130	129	129	128	127	39
40														131	40
41															41
42															42
43					Awar	d >131	for all	scores	in this	area.					43
44															44
45															45
	9:01	9:02	9:03	9:04	9:05	9:06	9:07	9:08	9:09	9:10	9:11	10:00	10:01	10:02	

#### 5 Autumn (cont.)

Raw				ŀ	Age in v	/ears ai	nd com	pleted	month	s				Raw
score	10:03	10:04	10:05			10:08				11:00	11:01	11:02	11:03	score
0														0
1														1
2														2
3														3
4					Award	>69 for	all scor	es in thi	s area.					4
5														5
6														6
7														7
8	72	71	70	69										8
9	74	73	72	72	71	70	70							9
10	76	75	75	74	73	72	72	71	70	70	69			10
11	78	77	76	76	75	75	74	73	72	72	71	71	70	11
12	79	78	78	77	77	76	76	75	74	74	73	72	72	12
13	80	80	79	79	78	78	77	76	76	76	75	74	74	13
14	82	81	81	80	79	79	78	78	77	77	76	76	75	14
15	83	82	82	81	81	80	80	79	79	78	78	77	77	15
16	84	84	83	83	82	81	81	80	80	79	79	78	78	16
17	86	85	84	84	83	83	82	82	81	81	80	79	79	17
18	87	86	86	85	84	84	83	83	82	82	81	81	80	18
19	89	88	87	86	86	85	84	84	83	83	82	82	81	19
20	90	89	88	88	87	86	86	85	84	84	83	83	82	20
21	91	90	90	89	88	88	87	86	86	85	84	84	83	21
22	92	92	91	90	90	89	88	88	87	86	86	85	84	22
23	94	93	92	92	91	90	90	89	88	88	87	86	86	23
24	95	94	94	93	92	92	91	90	90	89	88	88	87	24
25	96	96	95	94	94	93	92	92	91	90	90	89	88	25
26	98	97	96	96	95	94	94	93	92	92	91	90	89	26
27	99	99	98	97	96	96	95	94	93	93	92	91	91	27
28	101	100	99	99	98	97	96	96	95	94	93	93	92	28
29	102	102	101	100	99	99	98	97	96	95	95	94	93	29
30	104	103	102	102	101	100	99	99	98	97	96	95	95	30
31	105	105	104	103	103	102	101	100	99	99	98	97	96	31
32	107	106	106	105	104	103	103	102	101	100	99	99	98	32
33	110	109	108	107	106	105	104	103	103	102	101	100	99	33
34	111	111	110	109	108	107	106	105	104	104	103	102	101	34
35	113	112	112	111	110	109	108	107	106	105	104	104	103	35
36	116	115	114	113	112	111	111	110	109	108	107	105	105	36
37	119	118	117	116	115	114	113	112	111	110	109	108	107	37
38	123	122	120	119	118	117	116	115	114	112	112	111	110	38
39	126	125	124	123	122	121	120	118	117	116	115	113	112	39
40	130	129	128	127	126	125	124	123	121	120	119	117	116	40
41					130	130	129	127	126	125	124	122	120	41
42							2	/		130	129	128	126	42
43														43
44					Award	>131 fo	r all sco	res in th	is area.					44
45														45
	10.03	10.04	10.05	10.06	10.07	10.08	10.09	10.10	10.11	11.00	11.01	11:02	11.03	
	10.05	10.04	10.05	10.00	10.07	10.00	10.09	10.10	10.11	11.00	11.01	11.02	11.05	

# 5 Spring

Raw		•	•		Aae i	n vear	s and o	comple	ted m	onths					Raw
score	9:05	9:06	9:07	9:08	9:09	9:10				10:02	10:03	10:04	10:05	10:06	score
0															0
1															1
2					Awa	rd <69	for all	scores	in this	area.					2
3															3
4															4
5	71	70	69												5
6	73	72	72	71	70	69									6
7	75	75	74	73	72	72	71	70	69						7
8	77	77	76	75	75	74	73	72	72	71	70	69			8
9	79	78	78	77	77	76	75	75	74	73	72	72	71	70	9
10	81	80	79	79	78	78	77	76	76	75	74	74	73	72	10
11	82	82	81	81	80	79	79	78	78	77	76	76	75	74	11
12	84	83	83	82	82	81	81	80	79	79	78	78	77	76	12
13	85	85	84	84	83	83	82	82	81	81	80	79	79	78	13
14	87	87	86	85	85	84	84	83	83	82	82	81	81	80	14
15	88	88	88	87	87	86	86	85	84	84	83	83	82	82	15
16	90	89	89	88	88	88	87	87	86	86	85	84	84	83	16
17	91	91	90	90	89	89	89	88	88	87	87	86	86	85	17
18	93	92	92	91	91	90	90	89	89	89	88	88	87	87	18
19	94	94	93	93	93	92	92	91	91	90	90	89	89	88	19
20	95	95	94	94	94	93	93	93	92	92	91	91	90	90	20
21	96	96	96	95	95	95	94	94	94	93	93	93	92	92	21
22	98	97	97	97	96	96	96	95	95	95	94	94	93	93	22
23	99	99	99	98	98	98	97	97	96	96	96	95	95	95	23
24	101	100	100	100	99	99	99	98	98	98	97	97	96	96	24
25	102	101	101	101	101	101	100	100	100	99	99	99	98	98	25
26	103	103	103	102	102	102	101	101	101	101	100	100	100	100	26
27	105	104	104	104	104	103	103	103	102	102	102	102	101	101	27
28	106	106	106	105	105	105	105	105	104	104	104	103	103	103	28
29	108	108	107	107	107	107	106	106	106	106	105	105	105	105	29
30	110	110	109	109	109	109	108	108	108	108	107	107	107	107	30
31	112	112	111	111	111	111	111	110	110	110	110	109	109	109	31
32	114	114	114	113	113	113	113	113	113	112	112	112	112	112	32
33	116	116	116	116	115	115	115	115	115	115	115	115	114	114	33
34	118	118	118	118	118	118	118	118	118	118	118	117	117	117	34
35	121	121	121	121	121	121	121	121	121	121	121	121	121	121	35
36	124	124	124	124	124	124	124	124	124	124	124	124	124	124	36
37	127	127	127	127	127	127	127	127	127	127	127	127	127	127	37
38	130	130	130	130	130	130	130	130	130	130	130	130	130	130	38
39															39
40															40
41						1.424	<u> </u>								41
42					Awar	a >131	tor all	scores	in this	area.					42
43															43
44															44
45	0.0-	0.00	0.0-	0.00	0.00	0.40	0.44	40.00	40.04	40.00	40.00	40.01	40.07	40.00	45
	9:05	9:06	9:07	9:08	9:09	9:10	9:11	10:00	10:01	10:02	10:03	10:04	10:05	10:06	

# 5 Spring (cont.)

Raw			•	ł	Age in y	ears a	nd com	pleted	month	s	•		•	Raw
score	10:07	10:08	10:09	10:10	10:11	11:00	11:01	11:02	11:03	11:04	11:05	11:06	11:07	score
0														0
1														1
2														2
3														3
4					Award	<69 for	all scor	es in th	is area.					4
5														5
6														6
7														7
8														8
9	69													9
10	71	71	70	69										10
11	74	73	72	71	71	70	69							11
12	76	75	74	74	73	72	71	71	70					12
13	78	77	76	76	75	74	74	73	72	71	71	70		13
14	79	79	78	77	77	76	76	75	74	73	73	72	71	14
15	81	80	80	79	79	78	77	77	76	76	75	74	73	15
16	83	82	82	81	80	80	79	79	78	77	77	76	76	16
17	84	84	83	83	82	82	81	80	80	79	79	78	77	17
18	86	86	85	84	84	83	83	82	82	81	80	80	79	18
19	88	87	87	86	86	85	84	84	83	83	82	82	81	19
20	89	89	88	88	87	87	86	86	85	84	84	83	83	20
21	91	90	90	89	89	88	88	88	87	86	86	85	85	21
22	93	92	92	91	91	90	90	89	89	88	88	87	86	22
23	94	94	93	93	93	92	91	91	90	90	89	89	88	23
24	96	95	95	94	94	94	93	93	92	92	91	90	90	24
25	97	97	96	96	96	95	95	94	94	93	93	93	92	25
26	99	99	98	98	97	97	96	96	96	95	95	94	94	26
27	101	100	100	100	99	99	99	98	98	97	97	96	96	27
28	102	102	102	101	101	101	100	100	100	99	99	98	98	28
29	104	104	104	103	103	102	102	102	101	101	101	100	100	29
30	106	106	106	105	105	105	104	104	104	103	103	102	102	30
31	109	108	108	108	107	107	107	106	106	106	105	105	105	31
32	111	111	111	111	110	110	110	109	109	109	108	108	107	32
33	114	114	114	114	113	113	113	113	112	112	112	112	111	33
34	117	117	117	117	117	117	116	116	116	116	116	116	115	34
35	121	121	121	121	121	121	120	120	120	120	120	120	120	35
36	124	124	124	124	124	124	123	123	123	123	123	123	123	36
37	127	127	127	127	127	127	126	126	126	126	126	126	126	37
38	130	130	130	130	130	130	129	129	129	129	129	129	129	38
39														39
40														40
41					A	1010								41
42					Award	>131 fC	or all sco	res in th	iis area.					42
43														43
44														44
45	10.07	10.00	10.00	10.40	10.44	44.00	44.04	44.00	44.00	44.07	44.05	44.00	44.07	45
	10:07	10:08	10:09	10:10	10:11	11:00	11:01	11:02	11:03	11:04	11:05	11:06	11:07	

#### 5 Summer

Raw				А	ge in y	ears a	nd com	pleted	month	IS				Raw
score	9:09	9:10	9:11	10:00	10:01	10:02	10:03	10:04	10:05	10:06	10:07	10:08	10:09	score
0														0
1														1
2				ŀ	Award •	69 for	all scor	es in th	nis area	•				2
3														3
4	69	69												4
5	72	71	71	70	69									5
6	74	73	73	72	71	71	70	70						6
7	76	75	75	74	73	73	72	72	71	70	70	69		7
8	78	77	77	76	75	75	74	73	73	72	72	71	71	8
9	79	79	78	78	77	76	76	75	75	74	73	73	72	9
10	81	81	80	79	79	78	77	77	76	76	75	75	74	10
11	83	82	82	81	80	80	79	78	78	77	77	76	76	11
12	84	84	83	83	82	81	81	80	79	79	78	78	77	12
13	86	85	85	84	84	83	82	82	81	80	80	79	79	13
14	87	87	86	86	85	85	84	83	83	82	81	81	80	14
15	89	88	88	87	86	86	85	85	84	84	83	82	82	15
16	90	90	89	89	88	87	87	86	86	85	85	84	83	16
17	92	91	91	90	90	89	88	88	87	86	86	85	85	17
18	93	93	92	92	91	90	90	89	89	88	87	87	86	18
19	95	94	94	93	93	92	91	91	90	90	89	88	88	19
20	96	96	95	94	94	93	93	92	92	91	91	90	89	20
21	98	97	97	96	95	95	94	94	93	93	92	92	91	21
22	99	99	98	98	97	96	96	95	95	94	94	93	92	22
23	101	101	100	100	99	98	98	97	96	96	95	94	94	23
24	103	102	102	101	101	100	100	99	98	98	97	96	96	24
25	104	104	103	103	102	102	101	101	100	100	99	98	97	25
26	106	106	105	105	104	103	103	102	102	101	101	100	99	26
27	108	107	107	106	106	105	105	104	104	103	102	102	101	27
28	110	109	109	108	108	107	107	106	106	105	104	104	103	28
29	112	111	111	110	110	109	109	108	108	107	107	106	105	29
30	114	113	113	112	112	111	111	110	110	109	109	108	108	30
31	115	115	114	114	114	113	113	112	112	112	111	111	110	31
32	118	117	117	116	116	115	115	115	114	114	113	113	112	32
33	120	120	119	119	118	118	117	117	116	116	115	115	115	33
34	123	122	122	122	121	121	120	120	120	119	119	118	118	34
35	126	125	125	125	124	124	124	123	123	122	122	122	121	35
36	128	128	128	127	127	127	127	126	126	126	126	125	125	36
37	131	130	130	130	130	130	130	129	129	129	129	129	128	37
38														38
39														39 (0
40														40
41				•		101 0			la ta					41
42				A	ward >	131 101	<sup>r</sup> αll sco	res in t	nis area	J.				42
43														43
44														44
45				10.00			10.00			10.00	10.00	10.00	10.00	45
	9:09	9:10	9:11	10:00	10:01	10:02	10:03	10:04	10:05	10:06	10:07	10:08	10:09	

#### 5 Summer (cont.)

Dave				Age	in year	s and a	omple	ted mo	onths				Daw
Raw score	10:10	10:11	11:00	11:01	11:02	11:03	11:04	11:05	11:06	11:07	11:08	11:09	Raw score
0													0
1													1
2													2
3				Awa	ırd <69	for all s	scores i	n this c	irea.				3
4													4
5													5
6													6
7													7
8	70	70											8
9	72	71	71	70	70	69							9
10	73	73	72	72	71	71	70	70	69				10
11	75	74	74	73	73	72	72	71	71	70	70	70	11
12	77	76	76	75	74	74	73	73	72	72	71	71	12
13	78	78	77	76	76	75	75	74	74	73	73	72	13
14	80	79	78	78	77	77	76	76	75	75	74	74	14
15	81	81	80	79	79	78	78	77	77	76	76	75	15
16	83	82	81	81	80	80	79	79	78	78	77	77	16
17	84	84	83	82	82	81	81	80	80	79	78	78	17
18	86	85	85	84	83	83	82	82	81	80	80	79	18
19	87	86	86	85	85	84	84	83	82	82	81	81	19
20	89	88	87	87	86	86	85	85	84	83	83	82	20
21 22	90	90	89	88	88	87	86	86	85 07	85	84 86	84 95	21 22
22	92 93	91 93	91 92	90 92	89 91	89 90	88 90	87 89	87 88	86 88	86 87	85 87	22
23	95	93 94	92 94	92	93	90	90 91	 91	90	89	89	88	23 24
24	97	96	94 95	95	94	92	93	92	90	91	90	90	24
26	99	98	97	97	96	95	94	94	93	93	92	91	25
27	101	100	99	99	98	97	96	96	95	94	94	93	27
28	102	102	101	101	100	99	99	98	97	96	95	95	28
29	105	104	103	103	102	101	101	100	99	99	98	97	29
30	107	106	106	105	104	104	103	102	101	101	100	99	30
31	109	109	108	107	107	106	105	105	104	103	102	101	31
32	112	111	111	110	109	109	108	107	106	106	105	104	32
33	114	114	113	113	112	111	111	110	109	109	108	107	33
34	117	116	116	115	115	114	114	113	112	112	111	110	34
35	121	120	119	119	118	118	117	116	115	115	114	114	35
36	124	124	124	123	123	122	121	121	120	119	118	118	36
37	128	128	128	127	127	127	126	126	125	125	124	123	37
38								131	130	130	130	129	38
39												131	39
40													40
41													41
42				Awa	rd >131	for all	scores	in this	area.				42
43													43
44													44
45													45
	10:10	10:11	11:00	11:01	11:02	11:03	11:04	11:05	11:06	11:07	11:08	11:09	

#### 6 Autumn

Raw					Age in y	years ar	nd com	pleted	months	5		1		Raw
score	10:01	10:02	10:03	10:04	10:05	10:06	10:07	10:08	10:09	10:10	10:11	11:00	11:01	score
0														0
1														1
2														2
3														3
4														4
5														5
6					Award	<69 for	all scor	es in thi	s area.					6
7														7
8														8
9														9
10														10
11														11
12														12
13	69													13
14	72	72	71	71	71	70	70	70	70	69				14
15	75	75	74	74	73	73	73	72	72	72	72	71	71	15
16	77	77	77	76	76	76	75	75	75	74	74	74	73	16
17	80	79	79	78	78	78	77	77	77	76	76	76	76	17
18	82	81	81	80	80	80	79	79	79	78	78	78	77	18
19	83	83	82	82	82	81	81	81	80	80	80	79	79	19
20	85	85	84	84	83	83	83	82	82	82	81	81	81	20
21	87	87	86	86	85	85	84	84	83	83	83	82	82	21
22	89	89	88	88	87	87	86	86	85	85	84	84	84	22
23	92	91	90	90	89	89	88	88	87	87	86	86	85	23
24	94	93	93	92	92	91	90	89	89	88	88	87	87	24
25	96	95	95	94	93	93	92	92	91	90	90	89	89	25
26	99	98	97	96	95	95	94	94	93	93	92	91	91	26
27	101	100	99	99	98	97	96	96	95	94	94	93	93	27
28	103	102	101	101	100	99	99	98	97	96	96	95	94	28
29	107	106	105	103	102	101	101	100	99	99	98	97	96	29
30	109	109	108	107	106	104	103	102	101	101	100	99	99	30
31	112	111	110	109	108	108	107	106	104	103	102	101	101	31
32	115	114	112	111	111	110	109	108	108	107	105	104	103	32
33 34	119	118	116	115	113	112	111	110	110 112	109	108	107	106	33 34
34	124	122 129	120 126	119 124	117 122	116 120	115 118	113 117		111 114	110 113	109 112	109 111	34
35		129	120	124	122	120	123	121	116 119	114	113	112	114	35
37				121	120	120	125	121	125	123	121	110	114	30
38							100	127	123	125	121	124	122	38
39										127	12/	124	122	39
40													127	40
40														40
42					Award	>131 fo	r all sco	res in th	is area					42
43					/ wuru	. 13110			is area.					43
44														44
45														45
-5	10.01	10.02	10.03	10.04	10.05	10:06	10.07	10.08	10.09	10.10	10.11	11.00	11.01	-13
	10.01	10.02	10.05	10.04	10.05	10.00	10.07	10.00	10.09	10.10	10.11	11.00	11.01	

#### 6 Autumn (cont.)

Raw				ł	Age in y	/ears a	nd com	pleted	month	s				Raw
score	11:02	11:03	11:04								12:00	12:01	12:02	score
0														0
1														1
2														2
3														3
4														4
5														5
6														6
7					Award	<69 for	all scor	es in th	is area.					7
8														8
9														9
10														10
11														11
12														12
13														13
14														14
15	71	71	70	70	69									15
16	73	73	73	72	72	71	71	71	71	70	70	70	69	16
17	75	75	75	74	74	74	73	73	73	73	72	72	71	17
18	77	77	77	76	76	76	76	75	75	75	74	74	72	18
19	79	78	78	78	78	78	77	77	77	77	76	76	74	19
20	80	80	80	80	80	79	79	79	78	78	78	78	76	20
21	82	82	81	81	81	81	81	80	80	80	80	80	78	21
22	83	83	83	82	81	81	81	81	81	80	80	80	79	22
23	85	84	84	84	83	82	82	82	82	81	81	81	80	23
24	86	86	86	85	84	84	84	83	83	83	82	82	81	24
25	88	88	87	87	86	86	85	85	84	84	84	84	83	25
26	90	90	89	89	88	87	87	86	86	86	85	85	84	26
27	92	92	91	90	89	89	89	88	88	87	87	87	86	27
28	94	93	93	92	92	91	91	90	90	89	89	89	88	28
29	96	95	95	94	94	93	93	92	92	91	90	90	90	29
30	98	97	97	96	96	95	94	94	93	93	92	92	92	30
31	100	99	99	98	98	97	96	96	95	95	94	94	94	31
32	102	101	101	100	100	99	99	98	97	97	96	96	96	32
33	105	104	103	102	102	101	101	100	99	99	98	98	98	33
34	108	107	106	105	105	104	103	102	101	101	100	100	99	34
35	110	109	109	108	108	107	106	105	104	103	102	102	101	35
36	112	112	111	110	110	109	109	108	107	106	105	105	103	36
37	117	115	114	112	112	112	111	110	109	109	108	108	105	37
38	120	119	117	116	116	116	114	112	112	111	110	110	108	38
39	126	124	122	120	120	119	118	117	115	114	112	112	110	39
40		131	128	126	125	124	122	120	119	117	116	116	113	40
41							129	126	124	122	120	120	117	41
42									131	128	126	126	122	42
43					امسمی د	\121 £-	r all co-	roc in th	ic area				128	43
44					Award	2131 TC	or all sco	ies in th	iis area.					44
45	11.02	11.02	11.0/	11.05	11.00	11.07	11.00	11.00	11.10	11.44	12.00	12.04	12.02	45
	11:02	11:03	11:04	11:05	11:06	11:07	11:08	11:09	11:10	11:11	12:00	12:01	12:02	

#### 6 Spring

Raw score	All ages in range 10:05–12:02
0	10.05-12.02
0 1–5	Award <69 for all scores in this area.
6	69
7	70
8	72
9	74
10	76
11	77
12	79
13	81
14	83
15	85
16	86
17	88
18	90
19	92
20	94
21	95
22	97
23	99
24	101
25	103
26	104
27	106
28	108
29	110
30	112
31	113
32	115
33	117
34	119
35	120
36	122
37	124
38	126
39	128
40	129
41	131
42	
43	Award >131 for all scores in this area.
44	
45	

#### 6 Summer

-	
Raw score	All ages in range 10:09-12:02
0	10.09-12.02
0 1–10	Award <69 for all scores in this area.
1-10	70
12	72
12	
	74
14	76
15	78
16	80
17	82
18	84
19	86
20	87
21	89
22	91
23	93
24	95
25	97
26	99
27	101
28	103
29	105
30	106
31	108
32	110
33	112
34	114
35	116
36	118
37	120
38	122
39	124
40	125
41	127
42	129
43	131
44	
	Award >131 for all scores in this area.

Schools using our tests have told us that in Year 6, as the national tests do not take into account the age in months of a child, standardised scores were of much greater use than age-standardised scores. The Year 6 test was taken by a cohort spanning one year, and so for the data gathered in the standardisation trials we did not observe significant age-based differentiation in *6 Spring* and *6 Summer*.

Every effort has been made to trace all copyright holders, but if any have been inadvertently overlooked, the Publishers will be pleased to make the necessary arrangements at the first opportunity.

Although every effort has been made to ensure that website addresses are correct at time of going to press, RS Assessment from Hodder Education cannot be held responsible for the content of any website mentioned in this book. It is sometimes possible to find a relocated web page by typing in the address of the home page for a website in the URL window of your browser.

Orders: please contact Hachette UK Distribution, Hely Hutchinson Centre, Milton Road, Didcot, Oxfordshire, OX11 7HH. Telephone: (+44) 01235 400555. Lines are open from 9 a.m. to 5 p.m., Monday to Friday.

Email: primary@hachette.co.uk

Visit our website at www.rsassessment.com for details of other assessment publications.

Online support and queries email: onlinesupport@rsassessment.com

ISBN: 9781510475076

© Hodder and Stoughton Limited 2021

First published in 2021 by RS Assessment from Hodder Education, part of the Hodder Education Group An Hachette UK Company Carmelite House 50 Victoria Embankment London

EC4Y 0DZ

#### www.rsassessment.com

Progress in Reading Assessment

developed by Colin McCarty and Kate Ruttle for RS Assessment from Hodder Education. Senior Commissioning Editor: Charlotte Hiorns Typeset in India