NFER
Classroom

reading

year
4

supplement to teacher guide summer

To access the standardised / age standardised score converter and question grid spreadsheets, you will need to go to our secure School Portal on the NFER's website:

www.nfer.ac.uk/portal

and then enter your

NFER Number: ....

Project Number: ....

Unique Password: ....

(please write them in above for quick reference).

The letter and despatch notes that accompanied the test materials are pre-populated with the details of the numbers and password.

If you have lost the letter and despatch notes, the portal website has links where you can request your details again.

Using the outcomes of the test

This section provides teachers with information to convert pupils' test scores into more useful measures of their attainment.

If the Year 4 reading test is undertaken and marked in line with the guidance in this booklet, then both a standardised score and an age standardised score can be derived from a pupil's test score.

Standardised scores enable a comparison to be made between the performance of a pupil and that of other pupils who have taken the test. In the case of the NFER tests, age standardised scores mean that the comparison is with pupils who have the same month of birth.

The starting point for both of these outcomes is to total a pupil's marks from a reading test. A box is provided on the front cover of the test booklet to assist in this. This gives each pupil's total score or 'raw' score.

In order to obtain reliable outcomes, you should administer the test according to the guidance given in the teacher guide. It is particularly important that you observe the time limits given in the test instructions, and mark questions strictly according to the mark scheme. If not, the information derived from this section cannot be used reliably.

If you wish to record and explore patterns of performance on the test across your whole class, you may find it helpful to complete a question grid. For each question, the question grid shows the average mark of pupils in the standardisation sample. It also shows which questions address each of the elements of the Programme of Study. Completing pupils' scores in the question grid will enable you to compare performance on different areas of the Programme of Study with a nationally representative sample. This is available from the following website, which will require online registration for access:

www.nfer.ac.uk/portal

Standardised scores

Standardised scores enable a comparison to be made between the performance of a pupil and that of other pupils who have taken the same test. The average standardised score is set at 100, based on the performance of a nationally representative sample. About two-thirds of pupils will have standardised scores between 85 and 115 and scores within this range can be broadly described as 'average'.

Almost all pupils fall within the range 70 to 140, so scores outside this range can be regarded as exceptional. These exceptional scores are marked with *** on the charts below as standardised scores cannot be calculated with the necessary statistical reliability. If an exact score is needed, for example to calculate an average score for the class, 69 or 141 should be used as appropriate for these pupils.

For example, a teacher administered the test to her class. One pupil, Lucy, achieved a raw score of 23 on the test, giving her a standardised score of 105. The teacher could then say that Lucy achieved an average score on the test.

It is worth noting here that the scaled score of 100 defined by the Department for Education as the national expectation at the end of Key Stage 2 is **not the same as, nor equivalent to, a standardised score of 100 on these tests**. On these tests, a standardised score of 100 represents the average performance, based on a normal distribution, of the sample of pupils on which the tests were standardised. At the end of Key Stage 2, the scaled score of 100 represents the 'expected standard' and is not the average.

In order to save time and ensure accuracy, you can download a spreadsheet which will calculate each pupil's standardised score and age standardised score if you enter their date of birth and date of test. This spreadsheet is available from the following website: www.nfer.ac.uk/portal

Raw score	Standardised score		Raw score	Standardised score
0	***		21	102
1	***		22	103
2	***		23	105
3	71		24	106
4	74		25	107
5	77		26	108
6	79		27	110
7	81		28	112
8	83		29	113
9	85		30	115
10	87		31	117
11	88		32	119
12	90		33	121
13	91		34	124
14	92		35	128
15	93		36	132
16	95		37	137
17	96		38	***
18	98		39	***
19	99		40	***
20	101			

Confidence bands

Confidence bands are used to show the extent of the margin of error in the standardised scores. In other words, they show how accurately the test measures pupils' ability in reading.

The margin of error is simply a statistical estimate, based on the fact that tests can only sample the particular area of learning which they assess and that therefore the score a pupil achieves may vary within a few points of their 'true score'. To indicate how wide this margin of error is likely to be, a '90 per cent confidence band' has been calculated. This means that you can have 90 per cent certainty that the true score lies within the confidence band.

The table below gives the numbers that should be subtracted from and added to pupils' standardised scores at different score points to form the 90 per cent confidence bands.

Standardised score	To form 90% confidence band:	
	subtract	add
71, 74, 77, 79	5	10
81, 83, 85, 87, 88	6	9
90, 91, 92, 93, 95, 96, 98, 99	7	8
101, 102, 103, 105, 106, 107, 108, 110	8	7
112, 113, 115, 117, 119, 121	9	6
124, 128, 132	10	5
137	11	4

Take three pupils, Rachel, Nathan and David, with standardised scores of 101, 103 and 124 respectively. For Rachel, with a standardised score of 101 on this test, the 90 per cent confidence band is minus 8 and plus 7. Therefore, you can be 90 per cent certain (there is a nine-out-of-ten chance) that Rachel's true score is between 93 and 108.

Both Nathan, who has a standardised score of 103, and Rachel are working at about the average for their age. Nathan's true score is between 95 and 110.

However, David, with a standardised score of 124, achieved an above average score on the test and has a 90 per cent likelihood of having a true score between 114 and 129.

For high and low scores, the confidence bands are asymmetrical (they tend to be pulled towards the average test score).

Age standardised scores

Age standardised scores take into account a pupil's age in years and months at the time of sitting the test, in order that his or her performance can be compared with the performance of other pupils of the same age in a nationally representative sample. The age standardisation that has been undertaken means that these tests can be administered at different points in the school year and comparative information still be obtained. The age standardised scores in this booklet cover the age range 8 years 0 months to 9 years 11 months. If you have decided to give the test to pupils outside this range, you will not be able to use the table. You will still, though, be able to calculate an indication of attainment of age-related expectations on the new national curriculum.

In order to save time and ensure accuracy, you can download a spreadsheet, which will calculate each pupil's age standardised score if you enter their date of birth and date of test. This spreadsheet is available from the following website: www.nfer.ac.uk/portal

If you have not downloaded the spreadsheet, you should convert the total score into an age standardised score as follows:

- list the ages of all pupils in your class in years and completed months at the time of testing

- for each pupil, locate his or her age in years and months along the top of the table

- locate the pupil's total score down the left side of the table

- read off the age standardised score from where the row and column meet.

The average age standardised score is set at 100, based on the performance of a nationally representative sample. A score above 100 is above average and a score below 100 is below average. About two-thirds of pupils will have age standardised scores between 85 and 115 and scores within this range can broadly be described as 'average'. Almost all pupils fall within the range 70 to 140, so scores outside this range can be regarded as exceptional. These exceptional scores are marked with *** on the chart on pages 10-11 as age standardised scores cannot be calculated with the necessary statistical reliability. If an exact score is needed, for example to calculate an average for the class, 69 or 141 should be used as appropriate for these pupils.

Confidence bands

Confidence bands are used to show the extent of the margin of error in the age standardised scores. In other words, how accurately the test measures the pupil's ability in reading.

The margin of error is simply a statistical estimate, based on the fact that tests can only sample the particular area of learning which they assess and therefore the score a pupil achieves may vary within a few points of their 'true score'. To indicate how wide this margin of error is likely to be, a '90 per cent confidence band' has been calculated. This means that you can have 90 per cent certainty that the true score lies within the confidence band.

The table below gives the numbers that should be added to and subtracted from pupils' age standardised scores in different score ranges to form the 90 per cent confidence bands.

Age standardised score range	To form 90% confidence band:	
	subtract	add
70 - 79	5	10
80 - 89	6	9
90 - 99	7	8
100	7	7
101 - 111	8	7
112 - 121	9	6
122 - 132	10	5
133 - 140	11	4

Take four pupils, Hannah, Rachel, Ali and Stephen, with age standardised scores of 100, 99, 103 and 122 respectively. For Hannah, with an age standardised score of 100 on this test, the 90 per cent confidence band is plus or minus 7. Therefore, you can be 90 per cent certain (there is a nine-out-of-ten chance) that Hannah's true score is between 93 and 107.

Both Rachel, who has an age standardised score of 99, and Ali, who has an age standardised score of 103, are working at about the average for their age. Rachel's true score is between 92 and 107, and Ali's is between 95 and 110. Hannah's score of 100 also indicates she is working at about the average for her age.

However, Stephen, with an age standardised score of 122, achieved an above average score on the test and has a 90 per cent likelihood of having a true score between 112 and 127.

For high and low scores, the confidence bands are asymmetrical (they tend to be pulled towards the average test score).

Age-related expectations in the national curriculum

The result of the test contributes to the judgement of whether a pupil is meeting the age-related expectations in the national curriculum. A series of standard setting meetings involving over 100 teachers has provided another source of evidence about the level of challenge in these new tests in relation to the national curriculum expectations.

Clearly the tests can only cover certain areas from the national curriculum. Areas such as reading aloud or range of reading cannot be assessed due to the nature of a written test.

Test outcomes should inform rather than determine teachers' own assessment decisions, and therefore a range of marks is suggested in the table below. Some pupils perform better in formal assessments than their day-to-day work suggests, whilst others underperform. In this case, it is suggested that teachers consider the overall performance of pupils who score between 17 and 20 (inclusive) marks on this test before deciding if they have met age-related expectations.

Total scores may range from 0 – 40		
not achieving age-related expectations on test 0 – 20		
	achieving age-related expectations on test 17 – 29	
		high achievement on test 27 – 40
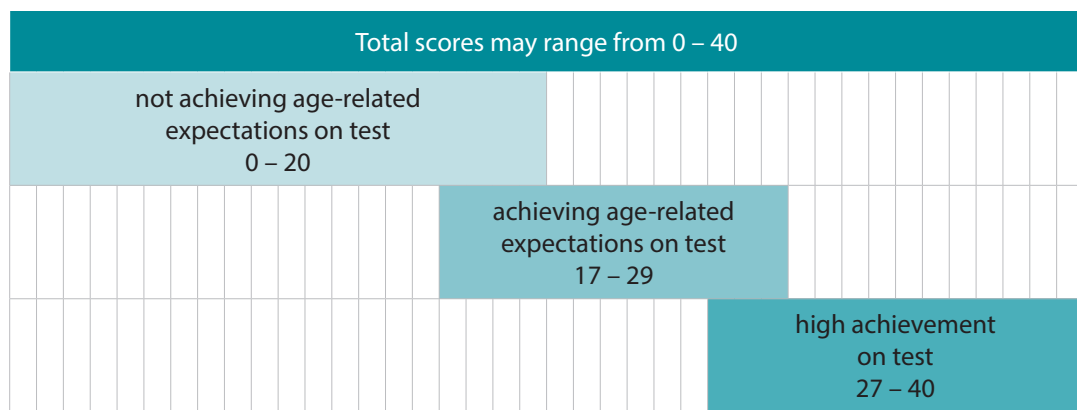
	total score
Not yet achieving age-related expectations	0 – 20
Achieving age-related expectations	17 – 29
High achievement	27 – 40

Age standardised scores

Total score	Age in years and completed months												Total score
	8.00	8.01	8.02	8.03	8.04	8.05	8.06	8.07	8.08	8.09	8.10	8.11	
0	***	***	***	***	***	***	***	***	***	***	***	***	0
1	***	***	***	***	***	***	***	***	***	***	***	***	1
2	71	71	71	70	70	70	70	***	***	***	***	***	2
3	75	75	75	75	74	74	74	74	73	73	73	72	3
4	78	78	78	78	77	77	77	77	76	76	76	76	4
5	81	81	81	80	80	80	79	79	79	79	78	78	5
6	84	84	83	83	83	82	82	82	81	81	81	80	6
7	86	86	85	85	85	85	84	84	84	83	83	83	7
8	88	88	87	87	87	86	86	86	85	85	85	85	8
9	90	89	89	89	88	88	88	88	87	87	87	86	9
10	91	91	91	90	90	90	89	89	89	89	88	88	10
11	93	92	92	92	91	91	91	91	90	90	90	89	11
12	94	94	94	93	93	93	92	92	92	91	91	91	12
13	96	96	95	95	95	94	94	93	93	93	92	92	13
14	98	97	97	97	96	96	95	95	95	94	94	94	14
15	99	99	98	98	98	97	97	97	96	96	95	95	15
16	100	100	100	99	99	99	98	98	98	97	97	97	16
17	102	101	101	101	100	100	100	99	99	99	98	98	17
18	103	103	102	102	102	101	101	101	100	100	100	99	18
19	104	104	104	103	103	102	102	102	101	101	101	101	19
20	106	105	105	105	104	104	103	103	103	102	102	102	20
21	107	107	106	106	106	105	105	104	104	104	103	103	21
22	108	108	108	107	107	107	106	106	105	105	105	104	22
23	110	109	109	109	108	108	108	107	107	107	106	106	23
24	111	111	110	110	110	109	109	109	108	108	108	107	24
25	113	112	112	112	111	111	110	110	110	109	109	109	25
26	114	114	113	113	113	112	112	112	111	111	110	110	26
27	116	115	115	115	114	114	114	113	113	112	112	112	27
28	117	117	117	116	116	115	115	115	114	114	114	113	28
29	119	119	118	118	118	117	117	116	116	116	115	115	29
30	121	120	120	120	119	119	119	118	118	117	117	117	30
31	123	123	122	122	121	121	120	120	120	119	119	119	31
32	126	125	125	124	124	124	123	123	122	122	121	121	32
33	129	128	128	127	127	126	126	125	125	124	124	124	33
34	132	131	131	130	130	130	129	129	128	128	127	127	34
35	135	135	135	134	134	133	133	132	132	131	131	130	35
36	140	139	139	138	138	137	137	137	136	136	135	135	36
37	***	***	***	***	***	***	***	***	***	***	***	140	37
38	***	***	***	***	***	***	***	***	***	***	***	***	38
39	***	***	***	***	***	***	***	***	***	***	***	***	39
40	***	***	***	***	***	***	***	***	***	***	***	***	40

	Age in years and completed months												
Total score	9.00	9.01	9.02	9.03	9.04	9.05	9.06	9.07	9.08	9.09	9.10	9.11	Total score
0	***	***	***	***	***	***	***	***	***	***	***	***	0
1	***	***	***	***	***	***	***	***	***	***	***	***	1
2	***	***	***	***	***	***	***	***	***	***	***	***	2
3	72	72	72	71	71	71	71	70	70	70	70	***	3
4	75	75	75	75	74	74	74	73	73	73	73	72	4
5	78	77	77	77	77	76	76	76	76	75	75	75	5
6	80	80	79	79	79	79	78	78	78	77	77	77	6
7	82	82	82	81	81	81	80	80	80	79	79	79	7
8	84	84	84	83	83	83	82	82	82	81	81	81	8
9	86	86	85	85	85	84	84	84	83	83	83	82	9
10	88	87	87	87	86	86	86	85	85	85	84	84	10
11	89	89	88	88	88	88	87	87	87	86	86	86	11
12	90	90	90	90	89	89	89	88	88	88	87	87	12
13	92	91	91	91	91	90	90	90	89	89	89	88	13
14	93	93	92	92	92	91	91	91	91	90	90	90	14
15	95	94	94	94	93	93	92	92	92	91	91	91	15
16	96	96	95	95	95	94	94	93	93	93	92	92	16
17	98	97	97	97	96	96	95	95	95	94	94	93	17
18	99	99	98	98	98	97	97	96	96	96	95	95	18
19	100	100	100	99	99	99	98	98	97	97	97	96	19
20	101	101	101	100	100	100	100	99	99	98	98	98	20
21	103	102	102	102	101	101	101	100	100	100	99	99	21
22	104	104	103	103	103	102	102	102	101	101	101	100	22
23	105	105	105	104	104	104	103	103	102	102	102	101	23
24	107	106	106	106	105	105	105	104	104	104	103	103	24
25	108	108	108	107	107	106	106	106	105	105	105	104	25
26	110	109	109	109	108	108	108	107	107	106	106	106	26
27	111	111	111	110	110	109	109	109	108	108	108	107	27
28	113	113	112	112	111	111	111	110	110	110	109	109	28
29	115	114	114	113	113	113	112	112	112	111	111	110	29
30	116	116	116	115	115	114	114	114	113	113	113	112	30
31	118	118	118	117	117	116	116	116	115	115	115	114	31
32	120	120	120	119	119	118	118	118	117	117	117	116	32
33	123	123	122	122	121	121	120	120	120	119	119	119	33
34	126	126	125	125	124	124	123	123	123	122	122	121	34
35	130	129	129	129	128	128	127	127	126	126	125	125	35
36	134	134	133	133	132	132	131	131	131	130	130	129	36
37	140	139	139	138	138	137	137	136	136	136	135	135	37
38	***	***	***	***	***	***	***	***	***	***	***	***	38
39	***	***	***	***	***	***	***	***	***	***	***	***	39
40	***	***	***	***	***	***	***	***	***	***	***	***	40

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