

# grammar and punctuation

## supplement to teacher guide summer

year

#### **Copyright details**

First published 2018

by the National Foundation for Educational Research, The Mere, Upton Park, Slough, Berkshire SL1 2DQ

www.nfer.ac.uk

© National Foundation for Educational Research 2018

Registered Charity No. 313392

All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, or otherwise, without prior written permission of NFER, unless within the terms of licences issued by the Copyright Licensing Agency.

To access the 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:
You may like to record them above for quick reference in the future.
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 grammar and punctuation 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. Age standardised scores mean that the comparison is with pupils who, in the case of the NFER tests, are the same age in years and completed months.

The starting point for this outcome is to total a pupil's marks from the grammar and punctuation test. A box is provided on the front of the test to assist in this. This gives each pupil's total score or 'raw' score.

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

If you wish to record and explore patterns of performance across the test as a whole, or across the 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. Completing pupils' scores in the question grid will enable you to compare areas of performance with a nationally representative sample of year 4 pupils. The grids are 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 nationally standardised score is 100. About two-thirds of pupils will have standardised scores between 85 and 115 and scores within this range can be broadly described as 'average'.

For example, a teacher administered the test to her class in June. One pupil, Lucy, achieved a raw score of 19 on the test, giving her a standardised score of 101. The teacher could then say that Lucy achieved an average score on the test.

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.

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 NFER 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 DfE's 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 total score, date of birth and date of test. The spreadsheet can be found at www.nfer.ac.uk/portal

Raw score	Standardised score
0	***
1	***
2	***
3	***
4	71
5	74
6	77
7	79
8	81
9	83
10	84
11	86
12	87
13	89
14	92
15	94
16	96
17	97

Raw score	Standardised score
18	99
19	101
20	103
21	105
22	107
23	109
24	110
25	112
26	115
27	117
28	119
29	122
30	124
31	127
32	131
33	136
34	***
35	***

#### Confidence bands for standardised scores

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 grammar and punctuation.

The margin of error accounts for the fact that the score is 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 added to and subtracted from 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	7	11					
79, 81, 83, 84, 86, 87, 89, 92	8	10					
94, 96, 97, 99, 101, 103, 105	9	9					
107	10	9					
109, 110, 112, 115, 117, 119	10	8					
122	11	8					
124, 127, 131	11	7					
136	12	7					

Here is an example of calculating the confidence bands. Three pupils, Agata, Nathan and Preeti, have standardised scores of 101, 105 and 131 respectively. For Agata, with a standardised score of 101 in this test, the 90 per cent confidence band is minus 9 and plus 9. Therefore, you can be 90 per cent certain that Agata's true score is between 92 and 110.

Both Nathan, who has a standardised score of 105, and Agata are working at about the average for their age. There is no statistical difference between their scores: Nathan's true score is between 96 and 114.

However, Preeti, with a standardised score of 131, has a 90 per cent likelihood of having a true score between 120 and 138, and has scored higher, in statistical terms, than Agata or Nathan.

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, 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 standardised scores in this booklet cover the age range 8 years 0 months to 9 years 11 months. If you have decided to give a test to pupils outside this range, you will not be able to use the table. You will still, however, be able to calculate standardised scores.

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 total score, date of birth and date of test. The spreadsheet can be found at 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 on pages 8-9
- · locate the pupil's total score (raw 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 100, based on the performance of a nationally representative sample. 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 table on pages 8–9 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. As age standardised scores take the ages of pupils into account, it is possible that a younger pupil may have a lower raw score than an older pupil but a higher age standardised score. This is because the younger pupil may have a higher performance relative to his or her own age group than the older pupil.

Age standardised scores from the reading, mathematics, grammar and punctuation, and spelling tests cover generally the same range, so for most pupils, performance on the grammar and punctuation tests can be compared directly to performance on the other NFER tests.

As mentioned for standardised scores, 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, an age standardised score of 100 on these tests**. On NFER tests, an age standardised score of 100 represents the average performance, based on a normal distribution, of the sample of pupils of a specific age on which the tests were standardised. At the end of Key Stage 2, the DfE's scaled score of 100 represents the 'expected standard' and is not the average.

#### Confidence bands for age standardised scores

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 grammar and punctuation.

The margin of error accounts for the fact that the score is 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 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 - 77	7	11					
78	8	11					
79 - 92	8	10					
93	9	10					
94 - 106	9	9					
107	10	9					
108 - 121	10	8					
122	11	8					
123 - 135	11	7					
136	12	7					
137 - 140	12	6					

Here is an example of calculating the confidence bands. Three pupils, Agata, Nathan and Preeti, have age standardised scores of 103, 107 and 130 respectively. For Agata, with an age standardised score of 103 in this test, the 90 per cent confidence band is minus 9 and plus 9. Therefore, you can be 90 per cent certain that Agata's true score is between 94 and 112.

Both Nathan, who has an age standardised score of 107, and Agata are working at about the average for their age. There is no statistical difference between their scores: Nathan's true score is between 97 and 116.

However, Preeti, with an age standardised score of 130, has a 90 per cent likelihood of having a true score between 119 and 137, and has scored higher, in statistical terms, than Agata or Nathan.

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

### Age standardised score table

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

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

10

#### © NFER

## blank page

## blank page



© National Foundation for Educational Research 2018