

Calculating learners' scores English Reading Tests Years 7–9

National Reading Tests

2017



Llywodraeth Cymru
Welsh Government

Purpose of this document

The purpose of this booklet is to enable schools to convert raw scores from the tests to age-standardised scores and progress measures where these have not been collected via the Welsh National Tests Data Collection (WNTDC). This will be relevant for independent schools. It will also be relevant where a learner has taken a test outside of the test window or an out-of-year test for diagnostic purposes.

Please note: only progress measures can be calculated for learners taking out-of-year tests.

Calculating learners' scores from national tests

The age-standardised scores and the progress measures were established using the data submitted by all schools in Wales with learners who had taken the 'live' English reading tests in April/May 2017.

Age-standardised scores

The age-standardised score scales make it possible to compare an individual learner's performance on the test in 2017 with the performance of all other learners of the same age, in years and completed months, taking the test.

Age-standardised scores are adjusted for age.

Working out age at date of test

You can use the 'age calculator' tool at learning.gov.wales/resources/browse-all/reporting-and-interpreting-national-test-results-2017/?lang=en to calculate age at date of test using the learner's date of birth and the date on which the test was taken. This will give you the learner's age in years and completed months.

Working out an age-standardised score

To work out the age-standardised score for an individual learner you will need:

- their raw score (total number of marks awarded when the test was marked)
- their age on the date the test was taken in years and **completed** months.

Use Tables 1 and 2 to look up the corresponding age-standardised score. Using the appropriate table for the test taken, locate the learner's raw score on the left-hand side of the table. Then read across the row to the column headed by the learner's age. The age-standardised score for this learner is in the cell where the row and column intersect. For example, a learner who has taken test EC5 and is 11 years and 3 months (11.03) and has a raw score of 23 would have an age-standardised score of 105.

Interpreting an age-standardised score

When age-standardised score scales are developed, the average raw score for all the learners of a given age taking the test is set to be equivalent to a standardised score of 100. About 68 per cent of learners would be expected to have age-standardised scores

between 85 and 115. An age-standardised score lower than 85 **might** suggest some difficulty with reading as measured on the test. An age-standardised score greater than 115 **might** suggest that a learner is performing well in comparison to other learners of the same age and that it may be appropriate to provide them with more challenging reading-related activities.

Very low age-standardised scores are shown in the table as * which can be interpreted as 'less than 70' and very high scores are shown as ** which can be interpreted as 'more than 140'. The tests are designed to measure the range of performance in reading that would be expected from learners in the specified year groups. In the case of learners whose reading skills are developing more slowly than would be expected for their age or learners who achieve very highly on the tests, their scores cannot be determined as accurately as those for learners scoring within the range expected. If a school wishes to calculate class averages, the use of 69 or 141 would be accurate enough estimates for these learners.

Table 1: EC5 raw score to age-standardised score conversion table

Year 7 English EC5													
Raw score	Age in years and (completed) months												
	10.08	10.09	10.10	10.11	11.00	11.01	11.02	11.03	11.04	11.05	11.06	11.07	11.08
0	*	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*	*	*	*	*
3	71	71	71	70	70	70	*	*	*	*	*	70	70
4	74	74	74	73	73	73	72	72	72	72	72	72	73
5	77	77	77	76	76	75	75	75	74	74	74	75	76
6	80	80	80	79	79	78	78	77	77	77	77	77	78
7	82	82	82	81	81	81	80	80	80	79	79	80	81
8	84	84	84	83	83	83	82	82	81	81	81	82	83
9	86	86	85	85	85	85	84	83	83	83	83	83	84
10	88	87	87	87	87	86	86	85	85	84	84	85	86
11	89	89	89	88	88	88	87	87	86	86	86	87	88
12	91	91	90	90	90	89	89	88	88	87	87	88	89
13	93	92	92	92	91	91	90	90	89	89	89	90	91
14	94	94	93	93	93	92	92	91	91	90	90	91	92
15	96	95	95	95	94	94	93	93	92	92	92	93	94
16	97	97	96	96	96	95	95	94	94	93	94	94	95
17	99	98	98	98	97	97	96	96	95	95	95	96	97
18	100	100	99	99	99	98	98	97	97	96	97	97	98
19	102	101	101	101	100	100	99	99	98	98	98	99	100
20	103	103	103	102	102	101	101	100	100	100	100	100	102
21	105	105	104	104	103	103	102	102	101	101	101	102	103
22	106	106	106	106	105	105	104	103	103	103	103	104	105
23	108	108	108	107	107	106	106	105	105	105	105	105	107
24	110	110	109	109	109	108	108	107	107	106	106	107	108

Year 7 English EC5

Raw score	Age in years and (completed) months											
	11.09	11.10	11.11	12.00	12.01	12.02	12.03	12.04	12.05	12.06	12.07	12.08
0	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*	*	*	*
3	71	71	71	71	71	70	70	70	70	70	70	*
4	74	74	74	74	74	73	73	72	72	72	72	72
5	76	77	77	77	77	76	76	75	75	74	74	74
6	79	79	80	80	79	79	78	78	77	77	77	76
7	81	81	82	81	81	81	81	80	80	79	79	79
8	83	84	84	83	83	83	82	82	81	81	81	81
9	85	85	85	85	85	85	84	83	83	83	82	82
10	87	87	87	87	87	86	86	85	85	84	84	84
11	89	89	89	89	88	88	87	87	86	86	86	85
12	90	90	90	90	90	89	89	88	88	87	87	87
13	92	92	92	92	91	91	90	90	89	89	88	88
14	93	93	93	93	93	92	92	91	91	90	90	90
15	95	95	95	94	94	94	93	93	92	92	91	91
16	96	96	96	96	96	95	95	94	94	93	93	93
17	98	98	98	98	97	97	96	96	95	95	95	94
18	99	100	99	99	99	98	98	97	97	96	96	96
19	101	101	101	101	100	100	99	99	98	98	97	97
20	102	103	103	102	102	101	101	100	100	99	99	99
21	104	104	104	104	103	103	102	102	101	101	100	100
22	106	106	106	105	105	105	104	103	103	102	102	102
23	107	108	107	107	107	106	106	105	105	104	104	104
24	109	110	109	109	109	108	107	107	106	106	106	106

Year 7 English EC5

Raw score	Age in years and (completed) months												
	11.09	11.10	11.11	12.00	12.01	12.02	12.03	12.04	12.05	12.06	12.07	12.08	
25	111	111	111	111	111	110	109	109	108	108	108	108	
26	113	113	113	113	113	112	111	111	110	110	110	110	
27	115	116	115	115	115	114	114	113	112	112	112	112	
28	118	118	118	118	117	117	116	115	115	114	114	114	
29	120	121	121	120	120	119	119	118	117	117	117	117	
30	124	124	124	124	123	122	122	121	120	120	120	120	
31	127	128	128	127	127	126	126	125	124	124	124	123	
32	131	131	131	131	130	130	129	129	128	128	128	128	
33	135	135	135	134	134	133	133	133	132	132	132	132	
34	138	139	138	138	137	137	137	137	136	136	136	136	
35	**	**	**	**	**	**	**	**	140	140	140	**	**

Table 2: ED5 raw score to age-standardised score conversion table

Year 8/9 English ED5													
Raw score	Age in years and (completed) months												
	12.08	12.09	12.10	12.11	13.00	13.01	13.02	13.03	13.04	13.05	13.06	13.07	13.08
0	*	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*	*	*	*	*
3	73	73	72	72	72	71	71	71	70	70	70	*	*
4	77	76	76	76	75	75	75	74	74	74	73	73	73
5	80	79	79	79	78	78	78	77	77	77	76	76	76
6	82	82	81	81	81	81	80	80	80	79	79	79	78
7	84	84	84	83	83	83	82	82	82	82	81	81	81
8	86	86	86	85	85	85	84	84	84	84	83	83	83
9	88	88	87	87	87	87	86	86	86	85	85	85	84
10	90	89	89	89	89	88	88	88	87	87	87	86	86
11	91	91	91	90	90	90	89	89	89	89	88	88	88
12	93	93	92	92	92	91	91	91	90	90	90	89	89
13	94	94	94	93	93	93	92	92	92	91	91	91	90
14	96	95	95	95	94	94	94	93	93	93	92	92	92
15	97	97	96	96	96	95	95	95	94	94	94	93	93
16	98	98	98	97	97	97	96	96	96	95	95	95	94
17	100	99	99	99	98	98	98	97	97	97	96	96	96
18	101	101	100	100	100	99	99	99	98	98	98	97	97
19	102	102	102	101	101	101	100	100	100	99	99	99	98
20	103	103	103	102	102	102	102	101	101	101	100	100	100
21	105	104	104	104	103	103	103	103	102	102	102	101	101
22	106	106	106	105	105	105	104	104	104	103	103	103	102
23	108	107	107	107	106	106	106	105	105	105	104	104	104
24	109	109	108	108	108	107	107	107	106	106	106	105	105

Year 8/9 English ED5

Raw score	Age in years and (completed) months											
	13.09	13.10	13.11	14.00	14.01	14.02	14.03	14.04	14.05	14.06	14.07	14.08
0	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*	*	*	*
3	*	*	*	*	*	*	*	*	*	*	*	*
4	73	72	72	72	71	71	71	70	70	70	*	*
5	76	75	75	75	74	74	74	73	73	73	72	72
6	78	78	77	77	77	77	76	76	76	75	75	75
7	80	80	80	79	79	79	78	78	78	77	77	77
8	82	82	82	81	81	81	80	80	80	79	79	79
9	84	84	83	83	83	82	82	82	82	81	81	81
10	86	85	85	85	84	84	84	84	83	83	83	82
11	87	87	87	86	86	86	85	85	85	84	84	84
12	89	88	88	88	87	87	87	87	86	86	86	85
13	90	90	90	89	89	89	88	88	88	87	87	87
14	92	91	91	91	90	90	90	89	89	89	88	88
15	93	93	92	92	92	91	91	91	90	90	90	89
16	94	94	94	93	93	93	92	92	92	91	91	91
17	95	95	95	95	94	94	94	93	93	93	92	92
18	97	96	96	96	95	95	95	95	94	94	94	93
19	98	98	97	97	97	96	96	96	95	95	95	95
20	99	99	99	98	98	98	97	97	97	96	96	96
21	101	100	100	100	99	99	99	98	98	98	97	97
22	102	102	101	101	101	100	100	100	99	99	99	98
23	103	103	103	102	102	102	101	101	101	100	100	100
24	105	104	104	104	103	103	103	102	102	102	101	101

Progress measures

The progress measure scales are calculated separately for each national curriculum year group and each test.

Progress measures are not adjusted for age.

Working out a progress measure

To work out the progress measure for an individual learner you will need their raw score (total number of marks awarded when the test was marked) and their year group.

Use Tables 3 and 4 to look up the corresponding progress measure. Please ensure you refer to the correct year group when looking up learners' progress measures.

Using the appropriate table for the test taken, locate the learner's raw score on the left-hand side of the table. Then read across the row to the column headed by the learner's year group. The progress measure for this learner is in the cell where the row and column intersect.

For example, a learner in national curriculum Year 8 who has taken test ED5 and has a raw score of 20 would have a progress measure of 1002.

A learner in national curriculum Year 9 who has taken test ED5 and has a raw score of 20 would have a progress measure of 997.

Interpreting a progress measure

The progress measure shows how well an individual learner has done in a given test compared with **all other learners in the same national curriculum year group taking the same test**. The progress measure should be presented as a time series allowing for a learner's achievement in the tests to be tracked over time.

The mean of the progress measure for each year group is set at 1000, and the scores range from 950 to 1050. Learners achieving between 980 and 1020 (i.e. scores within one standard deviation of the mean) have a progress measure that is in line with learners in the same year group (taking the same test). Approximately 68 per cent of learners will have a score in this range. Learners scoring outside of this range (i.e. below 980 or above 1020) have a progress measure that is either below or above that of most learners in their year group.

The progress measure for 2017 should be considered alongside any previous progress measure for this learner. Progress measures that are broadly similar from year to year would suggest that a learner is making steady progress within their year group. Small variations in the score from year to year are to be expected but if there are large changes in the progress measure between one year and the next, then this suggests that a learner has made either more or less progress than the rest of the learners taking the test. Please refer to the practitioner guidance at learning.gov.wales/resources/browse-all/reporting-and-interpreting-national-test-results-2017/?lang=en for further information on interpreting progress measures.

Out-of-year testing

Where a learner has taken a test that is different from their national curriculum year group test, look up their progress measure using the table appropriate for the test taken. Their progress measure compares the learner to all other learners who have taken the same test. For example, for a learner in national curriculum Year 8 who has taken test EC5 and has a raw score of 23 it is possible to look up a Year 7 progress measure. A raw score of 23 gives a Year 7 progress measure of 1008 which indicates that the learner has performed at around the same level as the average learner in Year 7.

When comparing progress measures over time it is important to consider the reference group (the national curriculum year group the learner is compared with), as this may be different from one year to the next.

Table 3: Year 7 Test EC5 raw score to progress measure conversion table

Total score	Progress measure Year 7
0	950
1	950
2	956
3	962
4	966
5	969
6	972
7	975
8	977
9	979
10	982
11	984
12	986
13	988
14	990
15	992
16	994
17	996
18	998
19	1000
20	1002
21	1004
22	1006
23	1008
24	1011
25	1013
26	1016
27	1019
28	1022
29	1025
30	1029
31	1033
32	1039
33	1046
34	1050
35	1050

Table 4: Year 8 and Year 9 Test ED5 raw score to progress measure conversion table

Total score	Progress measure Year 8	Progress measure Year 9
0	950	950
1	950	950
2	954	951
3	961	957
4	966	962
5	970	966
6	973	970
7	976	972
8	979	975
9	982	977
10	984	980
11	986	982
12	988	983
13	990	985
14	992	987
15	994	989
16	995	990
17	997	992
18	999	994
19	1001	995
20	1002	997
21	1004	999
22	1006	1000
23	1008	1002
24	1010	1004
25	1011	1006
26	1014	1008
27	1016	1010
28	1018	1012
29	1020	1015
30	1023	1017
31	1026	1020
32	1029	1023
33	1032	1027
34	1037	1031
35	1042	1036
36	1049	1043
37	1050	1050
38	1050	1050

