

Calculating learners' scores English Reading Tests Years 2–6

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 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 1–3 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 EB5 and is 9 years and 3 months (9.03) and has a raw score of 23 would have an age-standardised score of 107.

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: EA5 raw score to age-standardised score conversion table

Year 2/3 English EA5													
Raw score	Age in years and (completed) months												
	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
0	*	*	*	*	*	*	*	*	*	*	*	*	*
1	70	70	*	*	*	*	*	*	*	*	*	*	*
2	75	74	74	73	72	72	71	71	70	70	*	*	*
3	79	79	78	77	77	76	75	75	74	73	73	72	72
4	83	83	82	81	80	80	79	79	78	77	76	76	75
5	86	86	85	85	84	83	83	82	81	80	80	79	78
6	89	89	88	87	87	86	86	85	84	83	82	81	81
7	91	91	91	90	89	88	88	87	86	85	85	84	83
8	94	93	93	92	91	90	90	89	88	87	86	86	85
9	95	95	95	94	93	92	91	91	90	89	88	87	86
10	97	97	96	95	95	94	93	92	91	90	90	89	88
11	98	98	98	97	96	95	94	93	92	92	91	90	89
12	100	99	99	98	97	96	95	95	94	93	92	91	90
13	101	101	100	99	98	98	97	96	95	94	93	93	92
14	102	102	101	100	99	99	98	97	96	95	94	94	93
15	104	103	103	102	101	100	99	98	97	96	95	95	94
16	105	104	104	103	102	101	100	99	98	97	97	96	95
17	106	106	105	104	103	102	101	100	99	98	98	97	96
18	107	107	106	105	104	103	102	101	100	99	99	98	97
19	108	108	107	106	105	104	103	103	102	101	100	99	98
20	110	109	109	108	106	106	105	104	103	102	101	100	99
21	111	110	110	109	108	107	106	105	104	103	102	102	101
22	112	112	111	110	109	108	107	107	106	105	104	103	102
23	113	113	113	112	111	110	109	108	107	106	105	104	104
24	115	115	114	113	112	111	110	109	108	107	107	106	105

Year 2/3 English EA5

Raw score	Age in years and (completed) months											
	7.09	7.10	7.11	8.00	8.01	8.02	8.03	8.04	8.05	8.06	8.07	8.08
0	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*	*	*	*
3	71	70	70	70	*	*	*	*	*	*	*	*
4	74	73	73	73	72	72	71	70	70	70	70	70
5	77	76	76	75	75	74	73	73	72	72	72	71
6	80	79	79	78	77	77	76	75	74	74	74	73
7	82	81	81	80	80	79	78	78	77	76	76	75
8	84	83	82	82	81	81	80	80	79	78	78	77
9	85	85	84	83	83	82	82	81	80	80	79	79
10	87	86	85	85	84	84	83	82	82	81	81	80
11	88	87	87	86	86	85	85	84	83	82	82	81
12	89	89	88	87	87	86	86	85	84	83	83	82
13	91	90	89	88	88	87	87	86	85	85	84	84
14	92	91	90	90	89	89	88	87	86	86	85	85
15	93	92	91	91	90	90	89	88	87	87	86	86
16	94	93	92	92	91	91	90	89	89	88	87	87
17	95	94	93	93	92	92	91	90	90	89	88	88
18	96	95	95	94	93	93	92	92	91	90	89	89
19	97	96	96	95	95	94	93	93	92	91	90	90
20	99	98	97	96	96	95	95	94	93	92	92	91
21	100	99	98	98	97	97	96	95	94	94	93	92
22	101	100	100	99	98	98	97	96	96	95	94	94
23	103	102	101	100	100	99	99	98	97	96	96	95
24	104	103	102	102	101	101	100	99	98	98	97	97

Year 2/3 English EA5

Raw score	Age in years and (completed) months												
	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
25	116	116	116	115	114	113	112	111	110	109	108	107	107
26	118	118	117	116	115	114	114	113	112	111	110	109	108
27	120	120	119	118	117	116	115	115	114	113	112	111	110
28	122	122	122	121	120	119	118	117	116	115	114	113	112
29	125	125	125	124	122	121	120	119	118	117	116	116	115
30	128	128	127	127	126	124	123	122	121	120	119	119	118
31	130	130	130	130	129	128	127	126	126	124	123	122	121
32	133	133	133	133	132	131	131	130	130	129	128	127	127
33	136	136	136	136	135	135	134	134	134	133	133	132	132
34	139	139	139	139	139	138	138	138	138	138	137	137	137

Year 2/3 English EA5

Raw score	Age in years and (completed) months											
	7.09	7.10	7.11	8.00	8.01	8.02	8.03	8.04	8.05	8.06	8.07	8.08
25	106	105	104	104	103	102	102	101	100	99	99	98
26	107	107	106	105	105	104	103	102	101	101	100	100
27	109	109	108	107	107	106	105	104	103	103	102	102
28	112	111	110	109	109	108	107	106	106	105	104	104
29	114	113	112	112	111	110	110	109	108	107	107	107
30	117	116	115	115	114	113	112	112	111	110	110	110
31	120	120	119	119	118	117	116	115	115	114	114	113
32	126	125	125	124	123	122	121	120	119	119	119	118
33	131	131	131	130	130	129	128	128	127	126	126	126
34	137	137	137	137	136	136	135	135	135	135	135	135

Table 2: EB5 raw score to age-standardised score conversion table

Year 4/5 English EB5													
Raw score	Age in years and (completed) months												
	8.08	8.09	8.10	8.11	9.00	9.01	9.02	9.03	9.04	9.05	9.06	9.07	9.08
0	*	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*	*
2	73	73	72	72	71	71	70	70	*	*	*	*	*
3	78	77	77	76	75	74	74	74	73	72	72	72	71
4	81	81	80	79	79	78	78	77	77	76	75	75	74
5	84	84	83	82	81	81	81	80	80	79	79	78	77
6	87	87	86	85	84	83	83	83	82	81	81	80	80
7	89	89	88	87	86	86	85	85	84	83	83	82	81
8	90	90	90	89	88	87	87	86	86	85	85	84	83
9	92	92	91	90	90	89	88	88	87	87	86	85	85
10	94	93	93	92	91	90	90	89	89	88	88	87	86
11	95	95	94	93	93	92	91	91	90	90	89	88	87
12	97	96	96	95	94	93	93	92	91	91	90	90	89
13	98	98	97	96	95	95	94	93	93	92	91	91	90
14	99	99	98	97	97	96	95	95	94	93	93	92	91
15	101	100	100	99	98	97	97	96	95	95	94	93	92
16	102	102	101	100	99	99	98	97	96	96	95	94	94
17	103	103	102	101	101	100	99	98	98	97	96	96	95
18	105	104	104	103	102	101	100	100	99	98	98	97	96
19	106	106	105	104	103	102	102	101	100	100	99	98	97
20	107	107	106	105	104	104	103	102	102	101	100	100	99
21	109	108	108	107	106	105	105	104	103	102	102	101	100
22	110	110	109	108	107	107	106	105	104	104	103	102	101
23	111	111	110	109	109	108	107	107	106	105	104	104	103
24	113	113	112	111	110	109	109	108	107	106	106	105	104

Year 4/5 English EB5

Raw score	Age in years and (completed) months											
	9.09	9.10	9.11	10.00	10.01	10.02	10.03	10.04	10.05	10.06	10.07	10.08
0	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*	*	*	*
3	71	70	70	*	*	*	*	*	*	*	*	*
4	73	73	72	72	71	71	71	71	70	70	70	*
5	76	75	75	74	73	73	73	73	72	72	72	71
6	79	78	77	76	76	75	75	75	74	74	73	73
7	81	80	79	78	78	77	77	77	76	76	75	75
8	82	81	81	80	80	80	79	79	78	78	77	77
9	84	83	82	82	81	81	81	80	80	79	79	79
10	85	84	84	83	83	82	82	82	81	81	80	80
11	86	86	85	84	84	84	83	83	82	82	82	81
12	88	87	86	86	85	85	85	84	84	83	83	83
13	89	88	87	87	87	86	86	85	85	84	84	84
14	90	89	89	88	88	88	87	87	86	86	85	85
15	91	91	90	89	89	89	88	88	87	87	86	86
16	93	92	91	91	90	90	90	89	88	88	87	87
17	94	93	92	92	92	91	91	90	90	89	89	88
18	95	94	94	93	93	92	92	91	91	90	90	89
19	96	95	95	94	94	94	93	93	92	91	91	91
20	98	97	96	96	95	95	94	94	93	93	92	92
21	99	98	98	97	97	96	96	95	95	94	94	93
22	101	100	99	98	98	98	97	97	96	95	95	95
23	102	101	100	100	99	99	99	98	97	97	96	96
24	104	103	102	101	101	101	100	100	99	98	98	98

Year 4/5 English EB5

Raw score	Age in years and (completed) months											
	9.09	9.10	9.11	10.00	10.01	10.02	10.03	10.04	10.05	10.06	10.07	10.08
25	105	104	104	103	103	102	102	101	101	100	100	99
26	107	106	105	105	104	104	103	103	102	102	101	101
27	109	108	107	106	106	105	105	104	104	103	103	103
28	110	110	109	108	108	107	107	106	106	105	105	104
29	113	112	111	110	110	109	109	108	108	107	107	107
30	115	114	113	113	112	112	111	111	110	109	109	109
31	118	117	116	115	115	114	114	113	113	112	112	111
32	120	120	119	119	118	118	117	116	116	115	115	114
33	125	124	123	122	122	121	120	120	119	119	118	118
34	129	128	128	127	127	126	126	125	125	124	123	123
35	133	133	132	132	132	132	131	131	130	130	130	129
36	138	137	137	137	137	137	137	136	136	136	136	136

Table 3: EC5 raw score to age-standardised score conversion table

Year 6 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 6 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 6 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	**	**

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 4–6 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 2 who has taken test EA5 and has a raw score of 20 would have a progress measure of 1006.

A learner in national curriculum Year 3 who has taken test EA5 and has a raw score of 20 would have a progress measure of 994.

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 4 who has taken test EA5 and has a raw score of 28 it is possible to look up a Year 2 progress measure and a Year 3 progress measure. A raw score of 28 gives a Year 2 progress measure of 1023 which indicates that the learner has performed better than the average learner in Year 2. A raw score of 28 gives a Year 3 progress measure of 1010 which indicates that the learner has performed at around the same level as the average learner in Year 3.

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 4: Year 2 and Year 3 Test EA5 raw score to progress measure conversion table

Total score	Progress measure Year 2	Progress measure Year 3
0	950	950
1	955	950
2	964	953
3	969	959
4	973	963
5	977	967
6	981	970
7	984	973
8	987	975
9	989	977
10	991	979
11	993	980
12	994	982
13	996	983
14	997	985
15	999	986
16	1000	988
17	1002	989
18	1003	991
19	1005	992
20	1006	994
21	1008	995
22	1010	997
23	1012	999
24	1014	1001
25	1016	1003
26	1018	1005
27	1020	1008
28	1023	1010
29	1026	1014
30	1030	1017
31	1034	1022
32	1040	1028
33	1050	1037
34	1050	1050

Table 5: Year 4 and Year 5 Test EB5 raw score to progress measure conversion table

Total score	Progress measure Year 4	Progress measure Year 5
0	950	950
1	953	950
2	962	953
3	967	959
4	971	963
5	975	966
6	978	969
7	981	971
8	983	973
9	985	975
10	987	977
11	989	979
12	991	980
13	992	982
14	994	984
15	996	985
16	997	987
17	999	988
18	1001	990
19	1003	992
20	1004	993
21	1006	995
22	1008	997
23	1010	999
24	1012	1001
25	1014	1003
26	1016	1005
27	1018	1007
28	1021	1010
29	1023	1013
30	1026	1016
31	1030	1019
32	1033	1023
33	1038	1028
34	1044	1033
35	1050	1042
36	1050	1050

Table 6: Year 6 Test EC5 raw score to progress measure conversion table

Total score	Progress measure Year 6
0	950
1	950
2	953
3	960
4	964
5	968
6	971
7	974
8	977
9	979
10	981
11	983
12	985
13	987
14	989
15	991
16	993
17	995
18	997
19	999
20	1001
21	1003
22	1006
23	1008
24	1010
25	1013
26	1015
27	1018
28	1021
29	1024
30	1028
31	1032
32	1036
33	1043
34	1050
35	1050

