

# Calculating learners' scores English Reading Tests Years 2–6

National Reading Tests

**2018**



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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 2018.

## Age-standardised scores

The age-standardised score scales make it possible to compare an individual learner's performance on the test in 2018 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 <http://learning.gov.wales/resources/browse-all/reporting-and-interpreting-national-test-results-2018/?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 EB6 and is 9 years and 3 months (9.03) and has a raw score of 23 would have an age-standardised score of 104.

## 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: EA6 raw score to age-standardised score conversion table**

<b>Year 2/3 English EA6</b>													
<b>Raw score</b>	<b>Age in years and (completed) months</b>												
	<b>6.08</b>	<b>6.09</b>	<b>6.10</b>	<b>6.11</b>	<b>7.00</b>	<b>7.01</b>	<b>7.02</b>	<b>7.03</b>	<b>7.04</b>	<b>7.05</b>	<b>7.06</b>	<b>7.07</b>	<b>7.08</b>
0	*	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*	*	*	*	*
3	73	73	73	73	72	72	71	*	*	*	*	*	*
4	76	76	76	76	76	75	75	74	73	73	72	72	71
5	81	81	80	80	79	79	78	78	77	76	76	75	74
6	84	84	83	83	82	82	81	81	80	79	79	78	77
7	87	86	86	85	85	84	84	83	83	82	81	81	80
8	90	89	89	88	88	87	86	85	85	84	83	83	82
9	92	92	91	90	90	89	89	88	87	86	85	84	84
10	94	93	93	92	91	91	90	89	89	88	87	86	85
11	96	95	94	94	93	92	92	91	90	89	88	87	86
12	97	97	96	95	95	94	93	92	92	91	90	89	88
13	99	98	97	97	96	95	95	94	93	92	91	90	89
14	100	99	99	98	97	97	96	95	94	93	92	91	90
15	101	101	100	99	98	98	97	96	95	94	93	92	92
16	102	102	101	100	99	99	98	97	96	95	94	94	93
17	103	103	102	101	101	100	99	98	97	96	95	94	94
18	104	104	103	102	102	101	100	99	98	97	96	96	95
19	105	104	104	103	103	102	101	100	99	98	98	97	96
20	106	106	105	104	104	103	102	101	100	99	99	98	97
21	107	107	106	105	105	104	104	103	102	101	100	99	98
22	109	108	107	107	106	106	105	104	103	102	101	100	99
23	110	110	109	108	107	107	106	105	104	103	102	101	100
24	112	111	110	110	109	108	108	107	106	105	104	103	102

## Year 2/3 English EA6

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	*	*	*	*	*	*	*	*	*	*	*	*
4	*	*	*	*	*	*	*	*	*	*	*	*
5	74	73	72	71	71	*	*	*	*	*	*	*
6	77	76	75	74	73	73	72	72	71	71	*	*
7	79	78	78	77	76	75	75	74	73	73	72	72
8	81	80	80	79	78	77	77	76	76	75	75	74
9	83	82	82	81	80	79	78	78	77	77	77	76
10	84	84	83	82	82	81	80	79	79	78	78	78
11	86	85	84	84	83	82	82	81	80	80	79	79
12	87	86	86	85	84	84	83	82	82	81	81	81
13	88	88	87	86	86	85	84	83	83	82	82	82
14	90	89	88	87	87	86	86	85	84	83	83	83
15	91	90	89	88	88	87	86	86	85	85	84	84
16	92	91	90	90	89	88	87	87	86	86	85	85
17	93	92	91	91	90	89	88	88	87	86	86	86
18	94	93	92	92	91	90	89	88	88	87	87	87
19	95	94	93	92	92	91	90	89	89	88	88	88
20	96	95	94	93	93	92	91	90	90	89	89	89
21	97	96	95	95	94	93	92	92	91	90	90	90
22	98	97	96	96	95	95	94	93	92	91	91	91
23	99	98	98	97	96	96	95	94	93	93	93	93
24	101	100	99	99	98	97	96	95	95	94	94	94

## Year 2/3 English EA6

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	114	113	112	111	110	110	109	108	107	106	105	104	103
26	115	115	114	113	112	111	111	110	109	108	107	106	105
27	117	117	116	115	114	114	113	112	111	110	109	108	107
28	120	119	118	117	117	116	116	115	114	112	111	111	110
29	123	122	121	121	120	119	118	118	117	115	114	114	113
30	126	125	125	124	123	123	122	121	120	119	118	117	117
31	133	133	133	131	129	127	126	126	126	125	124	123	121
32	**	**	**	**	**	140	140	139	139	138	137	137	135



**Table 2: EB6 raw score to age-standardised score conversion table**

<b>Year 4/5 English EB6</b>													
<b>Raw score</b>	<b>Age in years and (completed) months</b>												
	<b>8.08</b>	<b>8.09</b>	<b>8.10</b>	<b>8.11</b>	<b>9.00</b>	<b>9.01</b>	<b>9.02</b>	<b>9.03</b>	<b>9.04</b>	<b>9.05</b>	<b>9.06</b>	<b>9.07</b>	<b>9.08</b>
0	*	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*	*
2	73	72	72	71	*	*	*	*	*	*	*	*	*
3	76	76	76	76	75	74	73	73	72	72	71	71	71
4	81	80	80	79	78	77	77	76	76	76	76	75	74
5	83	83	82	82	81	81	80	79	79	79	78	77	77
6	85	85	85	84	84	83	82	82	81	81	80	79	79
7	87	87	86	86	85	85	84	84	83	83	82	81	80
8	89	89	88	87	87	86	86	85	85	84	84	83	82
9	91	90	89	89	88	88	87	87	86	86	85	84	83
10	92	92	91	90	90	89	89	88	88	87	86	86	85
11	94	93	93	92	91	90	90	90	89	88	87	87	86
12	95	94	94	93	93	92	91	91	90	89	88	88	87
13	96	96	95	95	94	93	93	92	91	91	90	89	88
14	97	97	96	96	95	95	94	93	93	92	91	90	89
15	98	98	97	97	96	96	95	95	94	93	92	91	90
16	99	99	98	98	97	97	96	96	95	94	93	92	92
17	101	100	100	99	98	98	97	97	96	95	94	94	93
18	102	101	101	100	100	99	99	98	97	96	95	95	94
19	103	103	102	101	101	100	100	99	98	97	96	96	95
20	104	104	103	102	102	101	101	100	99	99	97	97	96
21	106	105	104	104	103	102	102	101	101	100	99	98	97
22	107	107	106	105	104	104	103	102	102	101	100	99	98
23	108	108	107	106	106	105	105	104	103	102	101	100	100
24	109	109	109	108	107	106	106	105	104	103	102	101	101



## Year 4/5 English EB6

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	*	*	*	*	*	*	*	*	*	*	*	*
4	73	73	72	71	71	71	71	*	*	*	*	*
5	76	76	75	74	74	74	73	73	73	72	72	72
6	78	77	77	76	76	76	76	75	75	75	74	74
7	79	79	78	78	78	78	77	77	77	77	76	76
8	81	80	80	79	79	79	79	78	78	78	77	77
9	82	82	81	81	81	80	80	80	79	79	79	79
10	84	83	83	82	82	82	81	81	80	80	80	80
11	85	84	84	83	83	83	83	82	81	81	81	81
12	86	86	85	85	84	84	84	83	83	82	82	82
13	87	87	86	86	85	85	85	84	83	83	83	83
14	88	88	87	87	86	86	86	85	84	84	84	84
15	90	89	88	88	88	87	87	86	85	85	85	85
16	91	90	90	89	89	88	88	87	87	86	86	86
17	92	91	91	90	90	89	89	88	88	87	87	87
18	93	92	92	91	91	90	90	89	89	89	88	88
19	94	93	93	92	92	91	91	90	90	90	89	89
20	95	95	94	93	93	92	92	91	91	91	90	90
21	96	96	95	94	94	93	93	92	92	92	91	91
22	97	97	96	96	95	95	94	94	93	93	92	92
23	99	98	97	97	96	96	95	95	94	94	93	93
24	100	99	99	98	98	97	97	96	96	95	95	95



## Year 4/5 English EB6

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	101	100	100	99	99	99	98	97	97	96	96	96
26	102	102	101	101	100	100	99	99	98	98	97	97
27	104	103	103	102	102	101	101	100	100	99	99	99
28	106	105	104	104	103	103	102	102	102	101	101	101
29	108	107	106	106	105	105	104	104	103	103	103	103
30	110	109	108	108	107	107	107	106	105	105	105	105
31	112	111	111	110	110	109	109	108	108	107	107	107
32	115	114	114	114	113	112	112	111	110	110	109	109
33	119	117	117	117	116	116	115	114	114	114	114	114
34	123	122	122	121	120	120	120	119	118	117	117	117
35	129	127	126	126	126	126	126	126	125	125	124	122
36	**	**	140	140	139	140	140	**	140	139	138	137

**Table 3: EC6 raw score to age-standardised score conversion table**

<b>Year 6 English EC6</b>													
<b>Raw score</b>	<b>Age in years and (completed) months</b>												
	<b>10.08</b>	<b>10.09</b>	<b>10.10</b>	<b>10.11</b>	<b>11.00</b>	<b>11.01</b>	<b>11.02</b>	<b>11.03</b>	<b>11.04</b>	<b>11.05</b>	<b>11.06</b>	<b>11.07</b>	<b>11.08</b>
0	*	*	*	*	*	*	*	*	*	*	*	*	*
1	*	*	*	*	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*	*	*	*	*
3	*	*	*	*	*	*	*	*	*	*	*	*	*
4	*	*	*	*	*	*	*	*	*	*	*	*	*
5	72	72	71	71	71	71	71	71	71	71	*	*	71
6	74	74	74	74	74	73	73	73	73	73	72	73	74
7	76	76	76	76	76	76	76	75	75	75	75	75	76
8	78	78	78	78	78	78	77	77	77	77	77	77	78
9	81	80	80	80	79	79	79	79	78	78	78	78	79
10	83	82	82	81	81	81	80	80	80	79	79	80	80
11	84	84	83	83	83	82	82	81	81	81	80	81	82
12	86	85	85	84	84	84	83	83	82	82	82	82	83
13	87	87	86	86	85	85	85	84	84	83	83	84	85
14	89	88	88	87	87	86	86	85	85	85	85	85	86
15	90	89	89	88	88	88	87	87	86	86	86	87	87
16	91	91	90	90	89	89	88	88	88	87	87	88	89
17	92	92	91	91	90	90	90	89	89	89	89	89	90
18	94	93	93	92	92	91	91	91	90	90	90	90	91
19	95	95	94	94	93	93	92	92	92	91	91	92	92
20	97	96	96	95	95	94	94	93	93	93	93	93	94
21	98	97	97	96	96	96	95	95	94	94	94	94	95
22	100	99	99	98	97	97	96	96	96	95	95	96	96
23	101	100	100	99	99	98	98	97	97	97	97	97	98
24	102	102	101	101	100	100	99	99	99	98	98	99	99

## Year 6 English EC6

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	*	*	*	*	*	*	*	*	*	*	*	*
4	*	*	*	*	*	*	*	*	*	*	*	*
5	72	72	72	72	72	72	72	72	72	72	72	72
6	75	75	74	74	74	74	74	74	74	73	73	73
7	77	77	77	76	76	76	76	76	75	75	75	75
8	78	78	78	78	78	78	78	77	77	77	76	76
9	80	80	80	80	79	79	79	79	78	78	78	78
10	81	82	82	81	81	81	80	80	79	79	79	79
11	83	83	83	83	82	82	82	81	81	80	80	80
12	84	84	84	84	84	83	83	82	82	82	81	81
13	85	85	85	85	85	84	84	84	83	83	83	82
14	87	87	87	86	86	86	85	85	84	84	84	83
15	88	88	88	88	87	87	86	86	86	85	85	85
16	89	89	89	89	88	88	88	87	87	86	86	86
17	91	90	90	90	90	89	89	88	88	88	87	87
18	92	92	91	91	91	91	90	90	89	89	89	88
19	93	93	93	93	92	92	91	91	91	90	90	90
20	94	94	94	94	93	93	92	92	92	91	91	91
21	95	95	95	95	95	94	94	93	93	93	93	93
22	97	97	97	97	96	96	95	94	94	94	94	94
23	99	99	98	98	98	97	97	96	95	95	95	95
24	100	100	100	99	99	99	98	98	97	97	96	96





## 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 EA6 and has a raw score of 20 would have a progress measure of 1003.

A learner in national curriculum Year 3 who has taken test EA6 and has a raw score of 20 would have a progress measure of 989.

## 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 2018 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 <http://learning.gov.wales/resources/browse-all/reporting-and-interpreting-national-test-results-2018/?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 EA6 and has a raw score of 30 it is possible to look up a Year 2 progress measure and a Year 3 progress measure. A raw score of 30 gives a Year 2 progress measure of 1031 which indicates that the learner has performed better than the average learner in Year 2. A raw score of 30 gives a Year 3 progress measure of 1018 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 EA6 raw score to progress measure conversion table**

<b>Total score</b>	<b>Progress measure Year 2</b>	<b>Progress measure Year 3</b>
0	950	950
1	954	950
2	958	950
3	963	954
4	967	958
5	972	962
6	976	965
7	979	968
8	982	971
9	985	973
10	987	975
11	989	977
12	991	979
13	993	980
14	994	981
15	996	983
16	997	984
17	998	985
18	1000	987
19	1001	988
20	1003	989
21	1004	991
22	1006	992
23	1008	994
24	1010	996
25	1012	998
26	1014	1001
27	1017	1004
28	1021	1008
29	1025	1012
30	1031	1018
31	1039	1028
32	1050	1050

**Table 5: Year 4 and Year 5 Test EB6 raw score to progress measure conversion table**

<b>Total score</b>	<b>Progress measure Year 4</b>	<b>Progress measure Year 5</b>
0	950	950
1	956	951
2	962	955
3	967	959
4	971	963
5	974	966
6	977	968
7	980	971
8	982	972
9	984	974
10	985	976
11	987	977
12	989	978
13	990	980
14	992	981
15	993	983
16	995	984
17	996	986
18	998	987
19	999	988
20	1001	990
21	1002	991
22	1004	993
23	1006	994
24	1007	996
25	1009	998
26	1011	1000
27	1014	1002
28	1016	1004
29	1019	1007
30	1021	1010
31	1025	1013
32	1029	1018
33	1034	1023
34	1040	1030
35	1050	1039
36	1050	1050

**Table 6: Year 6 Test EC6 raw score to progress measure conversion table**

<b>Total score</b>	<b>Progress measure Year 6</b>
0	950
1	950
2	950
3	954
4	958
5	962
6	965
7	968
8	970
9	972
10	974
11	976
12	977
13	979
14	981
15	983
16	985
17	986
18	988
19	990
20	992
21	993
22	995
23	997
24	999
25	1001
26	1003
27	1006
28	1008
29	1010
30	1013
31	1016
32	1019
33	1023
34	1028
35	1033
36	1040
37	1049
38	1050

