

# National Reading and Numeracy Test Results, 2018

## Notes and Key Quality Information

### Notes

#### 1. Changes to the publication of these statistics below national level

Following [consultation](#) on publication of teacher assessment data and National Reading and Numeracy Test data, the Statistical Release will no longer publish data at a local authority level. Analysis of the progress measure (see section 4.4) by local authority was presented in the Statistical Release in previous years. This is no longer published as a result of this change.

#### 2. Context

##### 2.1 Policy/Operational

National Reading and Numeracy tests were implemented on a statutory basis in May 2013 for all pupils in Years 2 to 9. Previously, many schools used commercially produced reading and numeracy tests as well as cognitive ability tests. The introduction of the National Reading and Numeracy tests provides uniformity of practice. The tests complement the National Literacy and Numeracy Framework (LNF) and aim to track pupils' progress in reading and numeracy skills from Year 2 (the end of Foundation Phase) through to Year 9 (the end of Key Stage 3). The tests are designed to give teachers a clearer insight into a learner's development and ensure that all schools are identifying the needs of their pupils in order to progress their ability in reading and numeracy. This will allow them to identify strengths and areas for improvement and to intervene at an earlier stage if learners are falling behind. More information on the LNF is available on the [Learning Wales website: National Literacy and Numeracy Framework](#)

The 2018 reading and numeracy tests were developed for the Welsh Government by a National Tests Consortium led by AlphaPlus Consultancy Limited. AlphaPlus sought advice from expert panels, including practitioners and regional education consortia advisers, throughout the development of the tests.

For further information on the arrangements for the administration of the tests, please see the ["National Reading and Numeracy Tests – 2018 Test Administration Handbook"](#).

Head teachers are responsible for reporting results for all pupils on their school roll as at the second Tuesday in May; this is known as the 'specified date on roll'. In 2018, the date for this was 8 May. [Statutory assessment arrangements for the school year 2017/18](#).

## **2.2 Related publications**

A statistical release relating to teacher assessments for the mandatory areas of learning at end of Foundation Phase and core subjects at Key Stage 2 and 3, entitled “End of Foundation Phase Outcomes and National Curriculum Teacher Assessment of Core Subjects at Key stages 2 and 3” was released on 8th August 2018. A further release relating to non-core subjects at Key Stage 3 and Welsh Second Language at Key Stage 2, entitled ‘Teacher Assessments of the Non-Core Subjects, Wales 2018’ was also released on 8th August 2018. Both releases can be found on the [Statistics & Research website](#).

A statistical headline on the National Reading and Numeracy Test results for 2018 and entitlement to free school meals will be published in February 2019. Analysis of the results including eligibility to free school meals is generally not available until then.

The Department for Education publishes statistics on the Key Stage 2 National Curriculum tests sat by pupils in England. Pupils in England also sit tests in Key Stage 1 to help inform final teacher assessments. Furthermore, optional tests exist at Key Stages 2 and 3 in England to help track progress. Statistical releases for tests at Key Stage 2 and teacher assessments at Key Stages 1, 2 and 3 and can be found on the [Department for Education website](#).

## **3. Data sources**

### **3.1 National Reading and Numeracy Tests**

Since 2015, the National Reading and Numeracy Test data have been collected as part of the Welsh National Tests data collection, an electronic collection of the results. Data is sent by schools to Knowledge and Analytical Services within the Welsh Government via their Local Authority (LA).

There was a phased approach to the data collection of National Tests. National Reading Test data were originally collected as part of the National Data Collection (NDC). The NDC is the electronic collection of teacher assessment data at end of Foundation Phase and Key Stages 2 and 3 and was expanded to include the collection of National Reading Test results for the first time in 2013. For 2014, the NDC was expanded to include the collection of National Numeracy Test data (both procedural and reasoning components).

A summary of the Welsh National Test process for 2018 covering timescales and reporting arrangements can be found here: [Welsh National Tests data collection](#)

## **4. Definitions**

### **4.1 Coverage**

It is a statutory requirement for all pupils in Years 2 to 9 to sit both the reading and numeracy tests. Pupils studying Welsh first language in Years 2 and 3 are required to sit the Welsh version of the reading test only although schools may opt for pupils studying Welsh first language in Year 3 to additionally sit the English version of the tests. For consistency, any optional English test results for pupils studying Welsh first language in Year 3 have been removed from the analysis included in this release.

From Years 4 to 9, pupils studying Welsh first language must submit results for both the English and Welsh versions of the reading tests.

Schools were able to choose whether pupils sat the numeracy tests in English or Welsh.

One test paper covered two year groups for the reading tests whilst there was a separate numeracy test paper for each year group. A summary of the test papers sat can be found in the table below:

National Curriculum Year	Welsh NRT paper	English NRT paper	Welsh NNT paper (Procedural)	English NNT paper (Procedural)	Welsh NNT paper (Reasoning)	English NNT paper (Reasoning)
2	CA6	EA6 <sup>(a)</sup>	2CG18	2EP18	2CRH18	2ER18
3	CA6	EA6 <sup>(b)</sup>	3CG18	3EP18	3CRH18	3ER18
4	CB6	EB6	4CG18	4EP18	4CRH18	4ER18
5	CB6	EB6	5CG18	5EP18	5CRH18	5ER18
6	CC6	EC6	6CG18	6EP18	6CRH18	6ER18
7	CC6	EC6	7CG18	7EP18	7CRH18	7ER18
8	CD6	ED6	8CG18	8EP18	8CRH18	8ER18
9	CD6	ED6	9CG18	9EP18	9CRH18	9ER18

(a) Not required to be sat for pupils studying Welsh first language

(b) Optional for pupils studying Welsh first language

Pupils should sit the test paper(s) for the National Curriculum Year group in which they are taught. It is possible that some may be older or younger and some may be taught in a class where the majority of pupils are of a different age.

Results for the English and Welsh reading tests are presented separately in this release. The results of the numeracy tests sat in English and Welsh medium are combined in this release as the content of the English and Welsh numeracy tests is the same.

## 4.2 Standardisation

Standardised scores such as the age-standardised score for the national tests are commonly used with tests intended to measure the ability of large groups of individuals. This is because just knowing the number or percentage of correct marks on a test paper is not enough to give a full picture of how well a learner or a group of learners has done in their test. The test results from all schools are analysed to prepare standardised score scales so that meaningful comparisons between individuals and groups can be made.

Each test will generally reflect a similar distribution of standardised scores within the ranges mentioned below. However, due to the range of marks available the results may not always present a normal distribution.

## 4.3 Age-standardised scores

Pupils' raw scores obtained from the test papers were converted into standardised scores, which are presented in this release. Age-standardised scores show how well an individual learner has done in a given test compared to other children of the same age in years and months in Wales.

At the Wales level, the standardisation is designed to fit a frequency distribution known as the 'normal distribution' with the scores having an average of 100 (but in practice the average is never exactly 100) making it easy to see whether a pupil has performed above or below average when compared to the standardisation sample. The standardisation is also designed to give a standard

deviation (a measure of the spread of scores) of 15. This construct is designed in order to ensure that around 68 per cent of pupils sitting the test have a standardised score within 15 points of the average score (between 85 and 115).

The National Reading and Numeracy Tests were standardised on the “live” population data. Therefore, Wales-level data for all tests across all year groups approximately follows the expected pattern with a mean of 100 and a standard deviation of 15.

Some pupils were unable to be provided with standardised scores if their age is outside of the standardisation age range. Additionally, attainment at the extremes of the scale cannot be accurately modelled as too few pupils in the standardisation sample attained scores such that these could be calculated with the necessary degree of statistical reliability. In such cases a pupil score will be recorded as ‘less than 70’ or ‘more than 140’.

#### **4.4 Progress measure**

The individual Pupil Result Sheets also include a progress measure. The progress measure shows how well an individual learner has done in a given test relative to **all other learners in the same national curriculum year group taking the same test**. The progress measure is presented to parents as a time series allowing for an individual pupil’s achievement in the tests to be tracked over time. Analysis of the progress measure by local authority was presented in the Statistical Release in previous years. This is no longer published due to the changes to the publication of these statistics below national level.

#### **4.5 Disapplication**

The disapplication guidance for the National Reading and Numeracy Tests is available on the [Learning Wales website](#). The definition of disapplication and the related guidance differs from that provided for teacher assessments. Therefore disapplication rates are not directly comparable and may differ.

### **5. Rounding and symbols**

In tables where figures have been rounded to the nearest final digit, there may be an apparent discrepancy between the sum of the constituent items and the total shown.

The following symbols have been used throughout the publication:

- percentages less than 0.05 but not zero
- . not applicable
- .. not available
- ~ not yet available
- \* data which cannot be given for reasons of confidentiality

*Cohort sizes have been replaced by a \* where there are fewer than 5 but more than zero pupils in a category.*

# **Key quality information**

## **Relevance**

### **Who are the key users of this data?**

These statistics are used both within and outside the Welsh Government. Some of the key users are:

- Cabinet Secretaries, Ministers and the Members Research Service in the National Assembly for Wales;
- The Department for Education and Public Services in the Welsh Government;
- LAs and schools.
- ESTYN

### **What are the data used for?**

These statistics are used in a variety of ways. The primary purpose of the underlying data is for diagnostic use by practitioners, e.g. teachers and schools, and to report to parents via pupil reports.

Some further examples of the use of this data are:

- General background and research;
- Inclusions in reports and briefings;
- Advice to Ministers;
- To inform the education policy decision-making process in Wales;
- To assist in research in educational attainment.

## **Accuracy**

The Welsh Government works closely with schools and LAs in order to ensure all data are validated before tables are published. Data is collated into an electronic return and submitted to the Welsh Government through DEWi, a secure online data transfer system developed by the Welsh Government. Various stages of automated validation and sense-checking are built into the process to ensure a high quality of data.

## **Timeliness and punctuality**

Schools are required to administer the tests during the set test window. For 2018, the test window lasted from 2nd May until 9th May for primary schools and from 25th April until 9th May for secondary schools. DEWi, a secure online data transfer system developed by the Welsh Government, was available for uploading National Reading and Numeracy Test files on 8th May 2018. Schools were asked to submit data for every pupil on roll at the school on 8th May. Schools were required to upload their data by 6th June.

## **Accessibility and clarity**

This Statistical First Release is pre-announced and then published on the Statistics section of the Welsh Government website. Open Document Spreadsheets are published alongside this release containing more detailed data.

## **Comparability and coherence**

National Reading and Numeracy Test data was not collected for independent schools. Pupil Referral Units (PRUs) were given the option to submit National Reading and Numeracy Test data if they wished. These results were included in the standardisation.

The standardised scores provide a measure of relative performance only. Therefore the data in this release should be used to compare the relative performance within different cohorts rather than to assess overall performance against a particular indicator. It should also be noted that the percentage of pupils achieving an age-standardised score of greater than 85 or a progress measure of average or greater should not be used as an indicator of “acceptable” performance.

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