

A Guide to Standardised Tests

An introduction for school leaders and teachers covering:

- what a standardised test is and why schools might use them
- how standardised tests are developed and how they work
- what information a standardised test can give you
- how this data can support your school's teaching and learning



Find out more at
www.risingstars-uk.com/standardised



Look out for this icon for specific information on the *GAPS*, *PiRA* and *PUMA* standardised tests.

What are standardised tests and how are they used?

What is a standardised test?

A standardised test is any form of test that requires all test takers to answer the same questions in the same way and is then scored in a 'standard' or consistent manner. This makes it possible to compare the relative performance of individual pupils or groups of pupils. The term is primarily associated with large-scale tests administered to large populations of pupils.

Standardised assessment tests follow a rigorous development process involving pretesting and statistical analysis of the results. This allows schools to then benchmark their pupils' performance against the nationally representative group of children used in the standardisation.

Why use standardised tests?

Standardised tests are very useful when schools want to know how their pupils are performing relative to pupils in other schools. Nationally standardised tests provide information on how pupils are performing over time and in comparison to pupils nationally. They help teachers understand national expectations and assess their pupils' performance in the broader national context.

In addition, standardised tests enable school leaders and governors to benchmark their school's performance against other schools within a group or cluster and nationally.

How do standardised tests work?

In order to produce reliable results, standardised tests must be administered and marked according to the test guidance. In particular, the tests must be taken at a fixed point, for example at the beginning or end of a specified school year. Failure to follow these arrangements can affect the reliability of the results.



In the case of *GAPS*, *PiRA* and *PUMA*, they are designed for use on a termly basis, in the second half of each term.

What are the limitations of standardised tests?

As with all tests, standardised tests don't measure everything a pupil has been taught in a particular subject area. In addition, they are a snapshot at a point in time and may not be a true reflection of what a pupil knows. For example, they may be feeling unwell on the day or may not perform well under the pressure of test conditions. For these reasons, standardised tests are best used alongside regular in-class formative assessment, which provides teachers and pupils with valuable, real-time information about what pupils know and can do and what they need to do to improve.

What are the benefits of standardised tests?

Standardised tests are perceived as being fairer than non-standardised tests because all pupils take the same test and the mark scheme is clearly defined. This consistency also allows a more reliable comparison of outcomes across all test takers, because everyone is taking the same test.

The test results also give an indication of how a pupil (or group) is performing in relation to pupils in other schools and the use of standardised tests over time enables progress to be tracked in an independent way.

Standardised tests can be used before and after an intervention to measure the impact of that intervention.



The reading, mathematics, grammar, punctuation and spelling ages generated by the our standardised tests are ideal for monitoring the impact of interventions.

How are standardised tests developed?

Standardised tests are developed in a rigorous way to ensure that they are both **valid** (the test measures what it has been designed to assess) and **reliable** (the test results are consistent, dependable and replicable).

This process typically takes at least 18 months and involves:

- developing a robust test framework that defines the content or skills to be assessed
- writing and reviewing the test questions
- trialling and pretesting the questions and tests with a representative sample of pupils (at least 1,000 per year group). Pretesting takes place at the time the tests are designed to be used



For *GAPS*, *PiRA* and *PUMA* pretesting took place in the second half of the autumn, spring and summer terms.

- statistically analysing these 'pretest' results to produce the standardised scores and other information for use by teachers so that the results can be interpreted and used in a meaningful way
- producing the final test(s) on the basis of the outcomes of the trials and pretest.

What information is produced from standardised tests and what does it tell you?

The following scores are the main numerical information provided from standardised tests, and their meaning is the same regardless of the test provider.



Raw score

This is the total number of marks that a pupil has scored in a particular test.

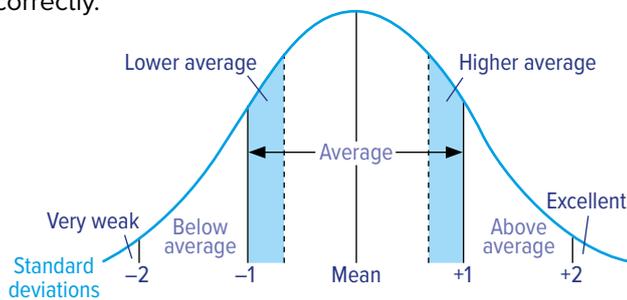
It is used as the starting point for all of the other scores.

A table of average raw scores for each *GAPS*, *PiRA* and *PUMA* test by term and gender is provided in the manuals and online so that you can compare how well each child is doing in relation to the average in the standardisation sample. This can give you a quick overview of where each pupil is and also enables you to compare overall performance of boys and girls.

Standardised score

This is derived from the pupil's raw score and placed on a scale that makes a comparison with the nationally representative sample of pupils.

Standardised scores are useful for comparing the performance of one cohort with another, provided they have taken the same test and it has been administered correctly.



Standardised/age-standardised score	70	75	80	85	90	95	100	105	110	115	120	125	130
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Percentile	2	6	9	16	25	37	50	63	75	84	91	94	98
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Test scores are standardised to an average score of 100, immediately showing whether a pupil is above or below the mean, relative to the national standardisation sample.

Percentile score

Percentiles can give you a better feel for the significance of a pupil's performance because they show the percentage of pupils obtaining any score or lower.

A percentile of 50 is average and a score that is in the 68th percentile means that 68 per cent of the group scored below that pupil's standardised score. The child is therefore in the top-third for his/her cohort.

Age-standardised score

also known as 'standardised age score' (SAS)

This is also based on the pupil's raw score, adjusted for age – in months – and placed on a scale that makes a comparison with those involved in the standardisation trial.

This allows you to compare the performance of pupils against others of the same age. The benefit is that younger pupils in a class are not disadvantaged by better performance of older pupils in their year group. In addition, age-standardised scores enable you to compare performance in any age-standardised test. Note, however, that age is less likely to have an impact on performance in standardised tests that are designed to assess curriculum knowledge and understanding (like *PiRA* and *PUMA*) because all pupils in the year group are being taught the same content. In curriculum tests, age generally has less of an impact on performance in Key Stage 2 than Key Stage 1.

This will be available for GAPS from spring 2018.

Reading age/Mathematics age

This is the average chronological age of the pupils who obtained each particular raw score in the standardisation trial.

The reading or mathematics age can be used as a quick indication of a child's reading or maths ability. It is useful for monitoring the impact of interventions as well as being a good measure for pupils entering the school from other schools. Please note that reading or mathematics ages are not the same as reading or mathematics attainment.

Grammar, punctuation and spelling ages will be available in GAPS from spring 2018.

PiRA and *PUMA* also include:

Hodder Scale score

The Hodder Scale is a decimal scale ranging from 0 to 6.0, which enables progress to be monitored term-by-term and year-by-year. In addition, it can be used as a basis for predictions about expected progress.



The Hodder Scale acts as a common 'spine' on which all of the *PiRA* and *PUMA* tests across the primary phase are plotted. It was derived from the raw scores of over 1,000 pupils in each year group in the standardisation trial. The main benefit of the Hodder Scale score is that it provides a whole-school way of monitoring, reporting and predicting progress in the absence of National Curriculum levels.

This will be available for GAPS from spring 2018.

How can I use the results from standardised tests to support my pupils' learning?

Case study 1

In Year 2, Tarren was tested using *PiRA* and he started the year well, scoring 18 (a standardised score of 103) in the autumn test, the equivalent of 2.2 on the Hodder Scale. However, in the spring term he fell back to a standardised score of 95, which meant he stayed at 2.2 on the Hodder Scale. Although the drop was not significant, it corroborated the class teacher's report that Tarren seemed to be losing confidence.

At the end of the spring term, his teacher looked back at his previous *PiRA* tests and noticed that Tarren was gaining all his marks from the easy questions and seemed to hit a barrier when it came to the harder ones. Tarren's teacher decided that for the summer term he would move Tarren to a higher literacy group, in order to give him more experience of answering harder questions in the supportive context of a guided reading group. The summer term results were much more encouraging (scoring 14 marks, 2.5 on the Hodder Scale and a standardised score of 96). Tarren gained confidence as a reader and was showing progress, albeit his marks showed that he was still below the average standardised score of 100 and he still had some catching up to do.

Case study 2

PUMA test results showed that Joshua had a slightly lower than average age-standardised score (94) at the end of the academic year. Although his level of work was average, progress was slightly lower than expected. There were no external/home circumstances to explain the results.

The coordinators allocated a teaching assistant to boost Joshua's confidence with a recognised intervention strategy to address weaker areas in numeracy. Joshua was monitored over two terms and progress was achieved. A jump on the Hodder Scale from 1.6 to 2.7 was found on the last test, with an age-standardised score of 108, which showed an improvement in his performance.

How can the different scores help me?

'I want to track my pupils' progress from autumn through spring and summer in Year 3'

Use the **Hodder Scale** to monitor progress term-by-term and year-by-year.

'I want to determine the effectiveness of a mathematics resource used with my intervention group'

Use their **mathematics ages** before and after the use of the resource to monitor impact.

'I would like to see how well we are performing as a school in reading'

Use the **standardised scores** to compare performance on a national scale.

'How well are our summer-born Year 1s doing so far this year?'

Use the **age-standardised score** to see how pupils are performing against other pupils of the same age.



The *GAPS*, *PiRA* and *PUMA* termly standardised assessments enable schools to accurately measure and predict pupil progress in reading, grammar, punctuation, spelling and mathematics, and benchmark their performance against national averages.

With three tests for each year group, the results provide reliable diagnostic information to support and guide effective teaching and learning, and offer evidence of progress for parents and Ofsted.

Find out more and order copies at www.risingstars-uk.com/standardised or call us on 01235 400555.

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