

## A Guide to Standardised Tests

**This guide is for school leaders and teachers who want to:**

- Understand what a standardised test is and how it is beneficial to schools
- Know what information a standardised test provides that can support your teaching and learning
- See how data from tests can be used to measure and prove student progress
- Learn how to predict student outcomes in advance with Star testing methods



## Definition of a standardised test:

“A standardised test is any form of test that (1) requires all test takers to answer the same questions, or a selection of questions from a common bank of questions, in the same way, and that (2) is scored in a “standard” or consistent manner, which makes it possible to compare the relative performance of individual students or groups of students.”

## Standardised tests are beneficial for teachers, school leaders and governors in the following ways:

- **Benchmarking:** Standardised tests enable schools to benchmark their pupils against the national representative sample of children used in the standardisation. This allows schools to understand national expectations whilst assessing performance within a broader national context.
- **Measuring school progress:** Assuring accountability across the board can be achieved with standardised tests. A good standardised test should provide you with detailed reports on pupils’ progress, termly or annually, in order to demonstrate any progress made, even at a granular level.
- **Fairer:** Standardised tests are viewed as a fairer testing method as all pupils take the same test. These tests will often be scored by computers, or at least people who do not directly know the pupils. This reduces the potential for favouritism or bias.



## How are standardised tests developed? Standardised tests need to be valid and reliable

### Validity

The validity of a test is the degree to which it assesses what it claims to measure. NFER, the National Foundation for Educational Research, conducted a study of the concurrent validity of both STAR Reading and STAR Maths in schools in England. From the 2,694 pupils tested the overall correlation between STAR Reading and Suffolk Reading Scale scores was 0.91, the correlation with Reading Age was 0.91 and the correlation with teacher assessments was 0.85.

### Reliability

Reliability is the extent to which a test yields consistent results from one administration to another and from one test form to another. Tests must yield consistent results in order to be useful.

Split-half reliability for testing Star Scaled Score showed an overall mean of 590.47, standard deviation of 281.42,  $n = 818,064$ . The Spearman-Brown Coefficient was 0.918. This indicates a good level of reliability.

## Benefits of Star tests

- ✓ Tests are administered online so no marking for teachers
- ✓ Computer-adaptive: Star tests are amongst the very few standardised tests that adapt each question to your pupils’ abilities, ensuring the tests are personalised and fair
- ✓ Immediate actionable data: Once a Star test is completed, detailed reports are instantly available to teachers and SLT and can be shown during OFSTED inspection
- ✓ Gap Analysis: Star reports show gaps in pupils’ knowledge and suggested skills
- ✓ Suitable for all students: Star tests can be used from early years to KS4 including SEN and EAL pupils.

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

### Raw score

This is used as the starting point for all other scores.

Star's raw score is the Scaled Score which runs from 0 to 1400 and allows teachers to track progress on a granular level. This score is based on the difficulty of the questions administered and the pattern of right and wrong answers.

Scaled Scores link to the Renaissance Learning Progressions which allows schools to give a target for end of school year expectations.

### Percentile score

Percentiles allow schools to track performance as it will show the percentage of pupils in the standardisation sample who obtained lower scores. For example, if a pupil has a score in the 85th percentile the pupil has performed greater than 85% of other pupils of a similar age.

Star tests also provide you with a Percentile Rank Range which reflects the amount of statistical variability in a pupil's Percentile Rank score. If a pupil were to take a Star test many times in a short period of time, their score would likely fall in this range.



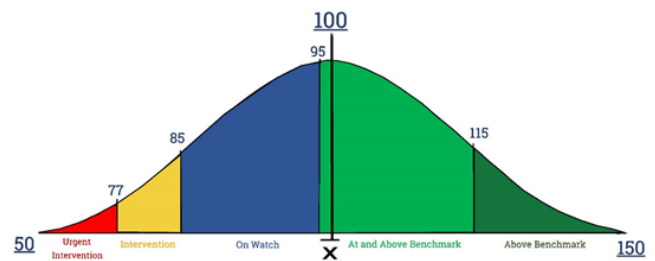
## Age-standardised Score (also known as standardised age score' (SAS)

An age standardised score converts a pupil's "raw score" to a standardised score which takes into account the pupil's age in years and months and gives an indication of how the pupil is performing against a national sample of pupils of the same age. This is beneficial for younger pupils as they are not disadvantaged by being compared against older pupils in their year group.

The average score is 100. A higher score is above average and a lower score is below average.

Within Star, the standardised score is referred to as the Normed Referenced Standardised Score (NRSS).

Below is an example of how a group of pupils would be benchmarked and categorised within Star based on their ability using the NRSS.



### Reading Age/Mathematics Indicator:

This provides an estimate of the chronological age, or indicator, at which pupils within the standardisation typically obtain each raw score.

**For Years 2-5 Star Reading Includes:**  
Estimated Oral Reading Fluency which is an estimate of a student's ability to read words quickly and accurately in order to comprehend text efficiently. Estimated ORF is reported in correct words per minute.

## Evidence – Predicting SATs results with confidence

In 2017, Renaissance carried out a correlation study with the DfE, comparing Scaled Scores from Star with KS2 SATs results from over 12,000 students across the UK. The results showed an incredibly strong correlation between both scores, indicating Star's ability to provide teachers with the ability to predict SATs results with confidence...and one Headteacher in particular, beat us to this study first. His name is Gary Alexander, HeadTeacher at Battle and Langdon CE Primary School and this is his story.

### Case Study - Correlation between Star tests and SATs results

by deputy Head Teacher Gary Alexander



I am Deputy Head Teacher of Battle & Langdon CE Primary School, a two-form entry primary school on the south coast of the UK.

In 2014, I was keen to move on from old assessment procedures and took the abolition of National Curriculum levels as an opportunity for me to innovate practice.

Although National Curriculum levels were familiar and

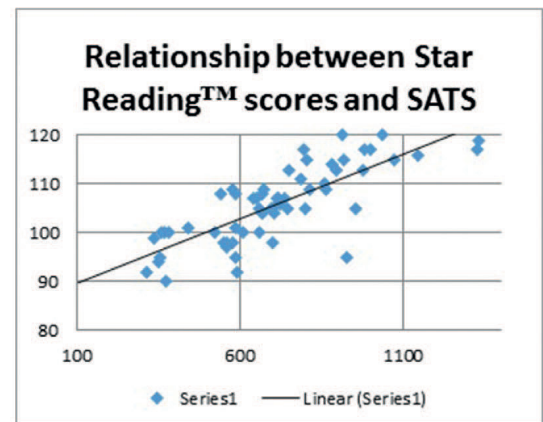
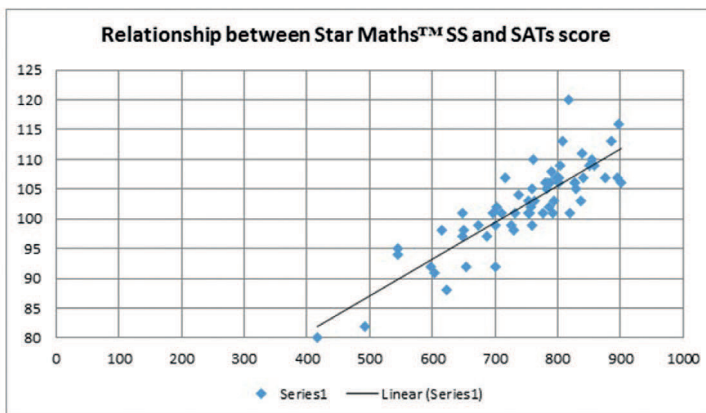
comforting, there is no doubt in my mind that they needed to go. To start with, teacher assessment against National Curriculum levels took far too long, and generated so much work for teachers that it became an onerous task that dominated their thoughts.

Accountability levels were rising (to levels far too high), and assessment information was being used to judge teachers

rather than to support learning. I stumbled across the power of Renaissance Star Assessments™ when looking at using Renaissance Accelerated Reader™ to support reading and organise my library. I was looking for something that would remove the burden of teacher assessment, whilst still giving strong and reliable information about learning. I needed the macro level information around group progress, the percentage of children 'on track' to achieve end of key stage expectations, and granular information about next steps in learning for individual children.

In the first full year we launched for years 2 to 6 and Star Assessments™ became our only formal assessment tool. Although teachers were still informally assessing day to day – how else would they teach – there was no formal recording of these judgements needed.

After the SATs results came in, and Primary Head Teachers across the country had finished weeping over the reading results, I did a correlation study of each test, comparing the SATs scores to the preceding Star™ scores. This proved that the correlation between the two tests was very strong (0.86 in Maths, 0.79 in Reading). This reassured me that Star could give a very accurate indication of KS2 performance.



Download your FREE copy of the Renaissance correlation study here:  
<http://info.renaissance.com/KS2-Register.html>

You can also read Gary's full study at: [www.renlearn.co.uk/gary-alexander](http://www.renlearn.co.uk/gary-alexander)

Find out more at: [www.renlearn.co.uk/star-assessments](http://www.renlearn.co.uk/star-assessments)