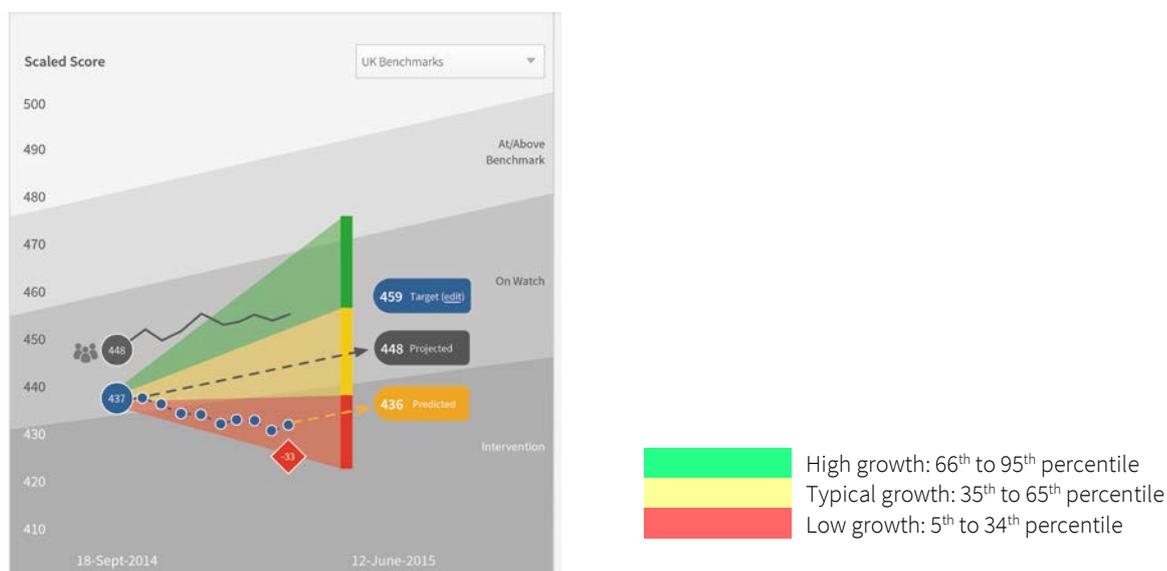


# What is a Student Growth Percentile?

A Student Growth Percentile (SGP) offers a dynamic new way of looking at growth by comparing a student's growth with that of his or her academic peers nationwide. Academic peers, in this context, are students in the same year group with a similar scaled score on a STAR™ assessment at the beginning of the time period being examined as said student.

SGP is reported on a 1-99 scale, with lower numbers indicating lower relative growth and higher numbers indicating higher relative growth. For example, if a student has an SGP of 90, it means the student has shown more growth than 89 percent of academic peers.



SGPs add significantly to our understanding of how well a student is doing in school. While knowing a student's level of achievement tells you whether the student is performing below, above, or as expected, an SGP indicates what kind of progress the student is making. For example, a student may be performing at a low level, yet experiencing high rates of growth. Conversely, a high-performing student could be stagnating.

Specifically, SGPs tell you whether a student's growth is more or less than can be expected.

For example, without an SGP, a teacher would not know whether an increase of 100 scaled scores represented average, above-average, or below-average growth. This is because students of differing achievement levels in different years grow at different rates. Therefore, a high-achieving Year 3 student grows at a different rate to a high-achieving student in Year 8.

Because STAR assessments are administered to large groups of students, Renaissance Learning™ has data for millions of testing events. Using a dataset of information, we are able to calculate growth

norms. In other words, we can calculate how much growth is typical for students of different abilities in different years from one time period to another. Thus we can provide a score that is an accurate representation of just how well a student is growing. Furthermore, because all SGP scores are reported on the same scale (1-99) we can calculate a median, or middle score, which represents an SGP for a group, such as a class, year group or school as a whole. Median growth percentiles can be used for comparison purposes.

### For what time periods can SGP be reported?

SGP compares students who took STAR at approximately the same time during the school year. Assessment testing windows can vary from school to school. Renaissance Learning has examined historical STAR usage and identified the testing windows that encompass as many customers as possible, while still retaining the validity of growth measure. For SGPs to be reported, students must be tested within at least two of the following date ranges:

- August 1<sup>st</sup> – November 30<sup>th</sup>
- December 1<sup>st</sup> – March 31<sup>st</sup>
- April 1<sup>st</sup> – July 31<sup>st</sup>

For example, if you would like to see SGPs for the autumn and spring terms, students must take at least one test between August 1<sup>st</sup> and November 30<sup>th</sup> and at least one test between December 1<sup>st</sup> and March 31<sup>st</sup>. In addition, a sufficient amount of time must pass between tests. For half-year SGPs to be calculated, students must take tests at least 60 calendar days apart. For full-year SGPs to be calculated, students must take tests at least 180 calendar days apart.

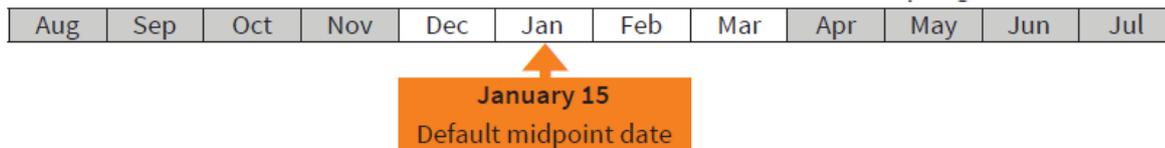
### What if a student tests multiple times within an SGP testing window?

The software uses data taken from the first test taken in the first testing window as the autumn pre-test. It uses the last test taken in the summer testing window as the summer post-test. By default, the test closest to January 15<sup>th</sup> is used as the midpoint test.

### Why do I need a midpoint date for calculating half-year SGPs?

A midpoint establishes an end date for calculating an SGP for the first half of the school year and a beginning date for the second half.





## Default midpoint date

If you have administrator access, you can change the midpoint date.

The research literature strongly supports using assessment data to inform instructional directions, and for that reason most schools test students three or four times during the school year for benchmark purposes. Students in intervention are often tested more frequently for progress monitoring. Even when multiple tests are administered, **only the first autumn term window and the last test in the summer window factor into the SGP.**

## How are SGPs calculated?

SGPs are calculated using a very large sample of STAR achievement data. Students in the sample are grouped by subject and year group, and then a statistical technique called quantile regression is used to associate every possible initial score and growth rate combination with a percentile. These general analyses generate lists of initial STAR scores along with growth rates that define an SGP for each year group, subject and time period.

## How many students are in the norming sample for SGP?

To calculate Student Growth Percentile Renaissance Learning collected hosted student data from millions of STAR Reading™ and STAR Maths™ tests.

## Who developed Student Growth Percentile?

SGP was developed by Dr. Damian Betebenner from the National Centre for the Improvement of Educational Assessment in partnership with the Colorado Department of Education, and is now used in 27 US states as part of their annual testing. Both Dr. Betebenner and Dr. Dan Bolt of the University of Wisconsin-Madison assisted Renaissance Learning in adapting SGP for more frequent (mid-year) use in STAR assessments. Renaissance Learning is the first provider to bring SGPs to the interim/school assessment market in both the US and the UK through STAR assessments. SGPs can be calculated for STAR Reading and STAR Maths.

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