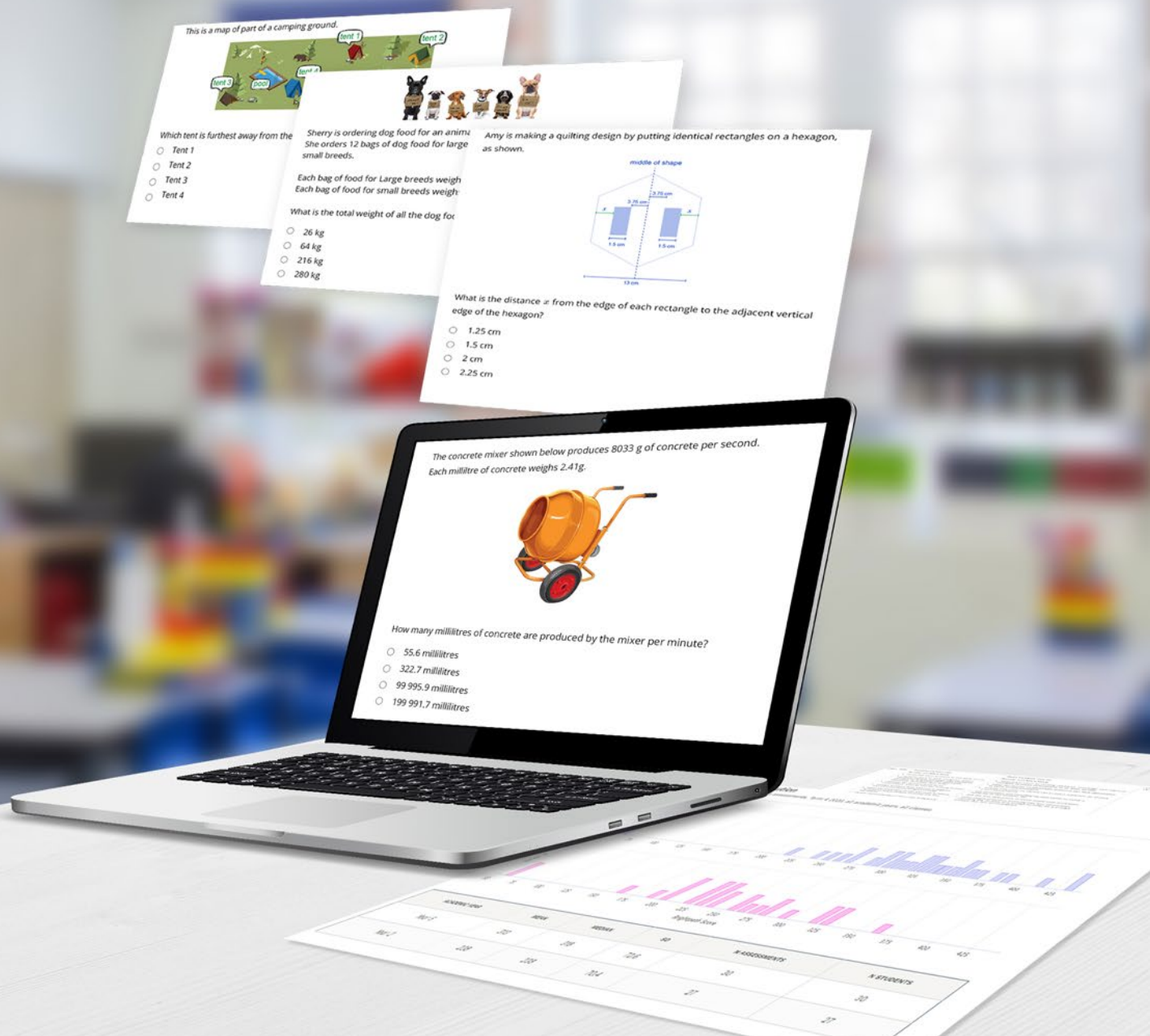



Brightpath

Formative Mathematics Assessments





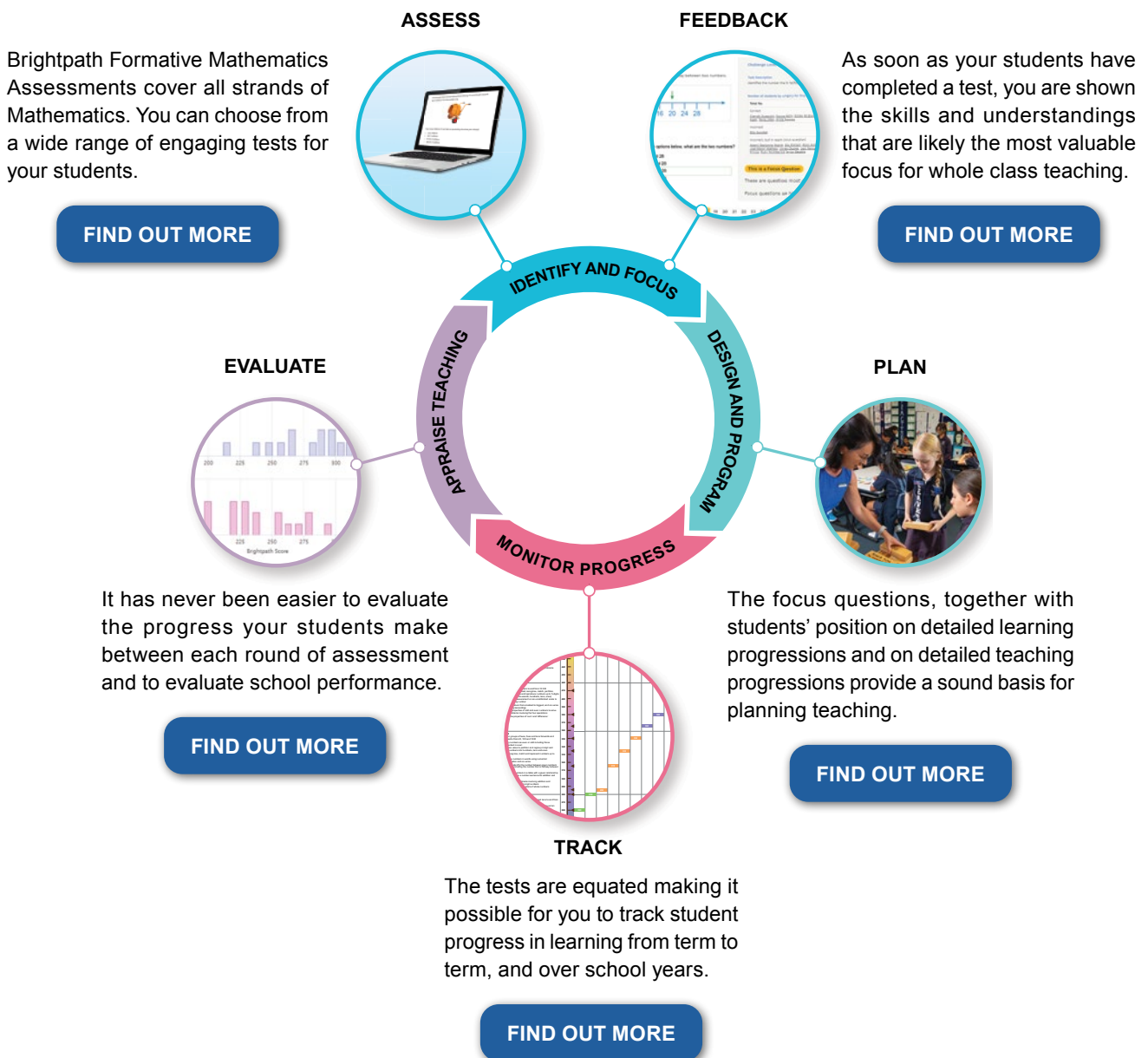
The Brightpath team
is excited to announce the
inclusion of an extensive suite
of **Formative Mathematics
Assessments** in the Brightpath
assessment and reporting platform
from the start of 2021!



Brightpath supports teachers at every stage of the Teaching and Learning cycle.

Our Formative Mathematics Assessments provide **detailed support** for teaching, assessing and reporting of your students' learning.

Click on the links below to learn more.



Formative

Mathematics Assessments

The Brightpath team are excited to announce the inclusion of an extensive suite of Mathematics formative assessments in the Brightpath assessment and reporting platform from the start of 2021.

The assessments cover years 2–9 and include both strand level and combined Mathematics tests. The table below shows the number of assessments available at each year level.

Test	Year 2/3	Year 4/5	Year 6/7	Year 8/9
Number and Algebra	6	6	6	6
Measurement and Geometry	3	3	3	3
Statistics and Probability*			2	2
Combined Mathematics*	2	2	2	2

**Available mid-2021*

Assessments that facilitate learning

The tests have been designed so:

- teachers can use assessment as the **starting point** of their teaching,
- students can **learn from their errors and mistakes** and be given second chances to succeed, and
- teachers can be supported in evaluating the **success of their teaching** interventions.

Brightpath Provides Data You Can Trust

A recent federal report identified Brightpath as one of the few tools aligned with well-constructed learning progressions and capable of providing information about the points students have reached in their learning and the growth they have made over time.



A BRIEF OVERVIEW

The Tests

Students access Brightpath Formative Assessments online. The questions are clear and easy to read and the contexts are realistic and engaging.



Which of these trampolines is the cheapest?

- ☐  \$564
- ☐  \$546
- ☐  \$456
- ☐  \$465



Isaac paid for sachets of seasoned crickets with a \$10 note.

Each of the sachets costs 69 cents.

He got \$4.48 change.

How many sachets of seasoned crickets did Isaac buy?

sachets

Examples of some of the age-appropriate test questions.

The questions have been carefully constructed to assess development in students' mathematical understandings and the tests were extensively trialled prior to being made available for schools to use.

Number and Algebra Questions



Here are some toy cars in boxes.



Which of these shows one way to work out the total number of toy cars?

- ☐ $3 + 3 + 3$
- ☐ $6 + 3$
- ☐ $6 + 6 + 6$
- ☐ $6 + 6 + 6 + 6 + 6$

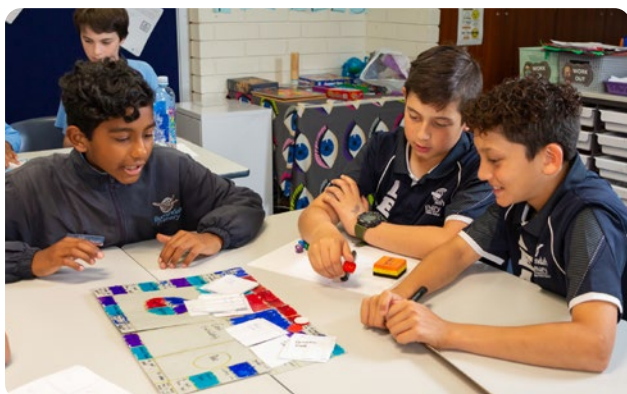
○○ represents $\frac{2}{5}$

Which diagram below represents a whole number?

- ☐ ○○○○○○○
- ☐ ○○○○
- ☐ ○○○
- ☐ ○○○○○○

Which of the following expressions is equal to $2p^3$?

- ☐ $2 \times p \times p \times p$
- ☐ $3 \times p \times p$
- ☐ $2 + p + p + p$
- ☐ $6 \times p$



0.49 metres

Weighs 0.149 kg



The wingspan of a bird is the length from one wingtip to the other wingtip. For one species of bird, a rule that can be used to approximately predict its weight from its wingspan is

$$W = 1.3 \times L^2$$

Where W is the mass in kilograms and L is the wingspan in metres.

The mass of a bird in this species is 0.149 kilogram. The wingspan of the bird is 0.49 metre.

What is the difference **in grams** between the bird's actual mass and the mass predicted by the rule? Write your answer to **two** decimal places.

grams

Measurement and Geometry Questions



Which bottle is the tallest?



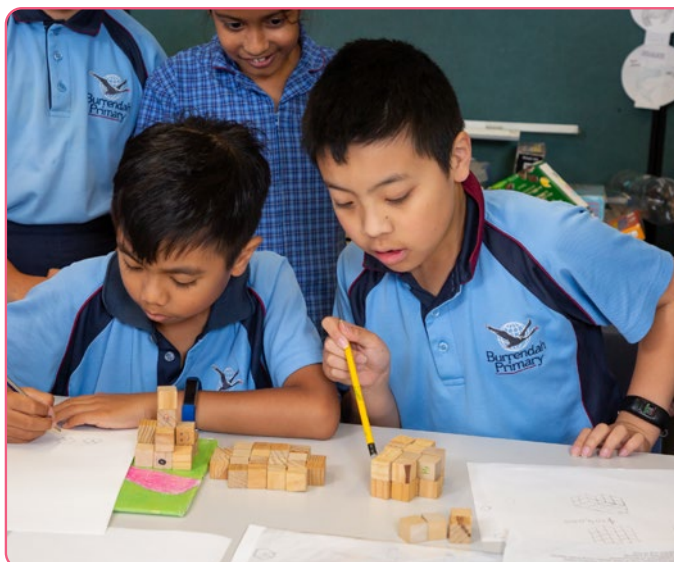
- ☐ A
- ☐ B
- ☐ C
- ☐ D

Veena has these two shapes.

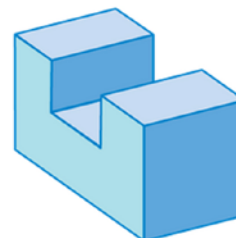


Which shape can she make by joining them?

- ☐
- ☐
- ☐
- ☐



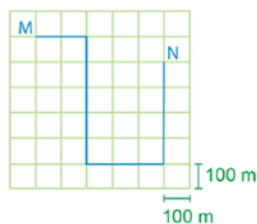
Chris had a wooden block.
He removed a portion of the block to create the shape below.



How many edges does the new shape have?

- ☐ 23 edges
- ☐ 24 edges
- ☐ 25 edges
- ☐ 26 edges

George walks along the path from M to N as shown below.



How far does he walk in kilometres?

- ☐ 0.14 kilometres
- ☐ 1.4 kilometres
- ☐ 1 400 kilometres
- ☐ 14 kilometres



Rebecca wants to make a paper shopping bag, as shown below, in the shape of a trapezium.

She needs to calculate the area of the sides of the bag to calculate the amount of paper needed to make the bag.



What is the area of the front face of the bag, as shown?

cm²



Brightpath Supports Teachers

The Brightpath data is useful in the classroom on an ongoing basis throughout the term, rather than just something to be done at the beginning and end of the year.

Register with Brightpath today!

[REGISTER HERE](#)



The Reports

Brightpath includes a comprehensive suite of reports.

As soon as students have completed their test, they can access their personal feedback. They can see their **total score** and how they went on each of the questions. Importantly, they are shown the **skills and understandings** that are likely the most valuable focus of their learning (Figure 1).

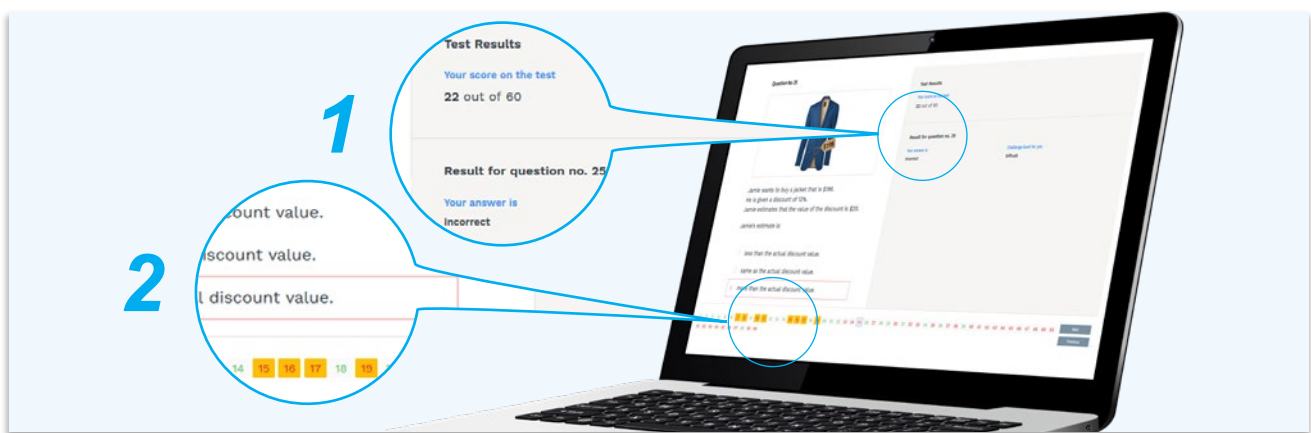


Figure 1 Student feedback report showing 1, the **Total Score**, and 2, **Focus Questions** that point to next learning.

Teachers can view how their class performed on each question and they can see the **focus questions** for the class (Figure 2).

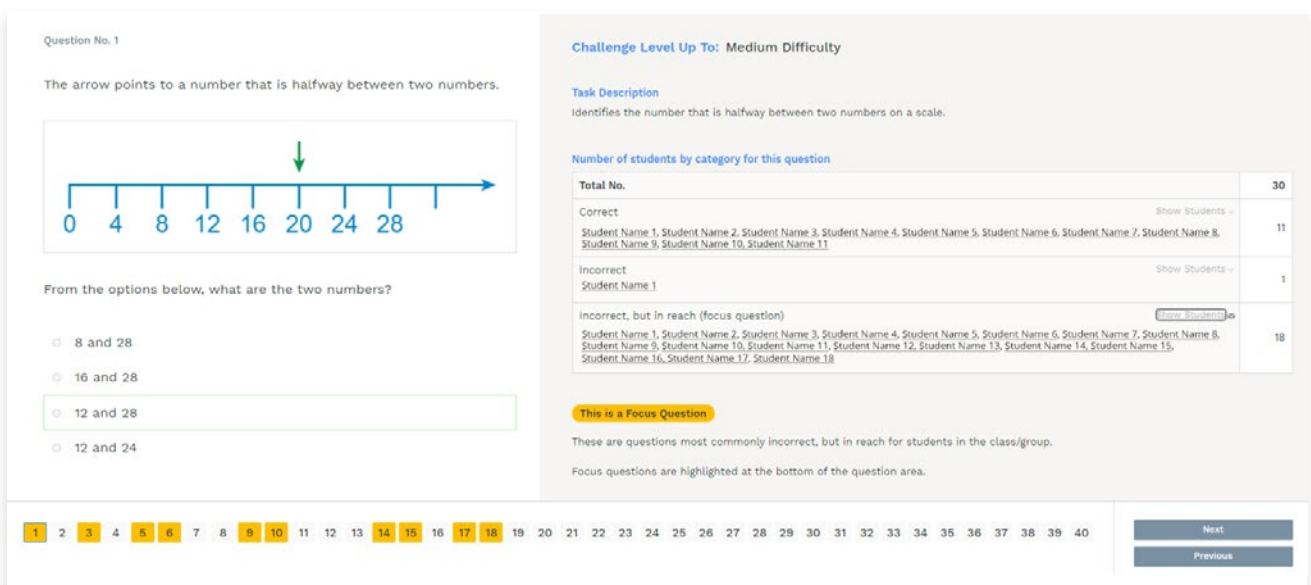


Figure 2 Focus questions are the questions that were **most commonly incorrect** and, which the analysis identified, were most commonly within their students' ability range. The skills assessed by these questions are likely to be a useful **focus for whole class teaching**.

The Performance Profile enables teachers to view their students' performance relative to detailed **learning progressions**. (Figure 3)

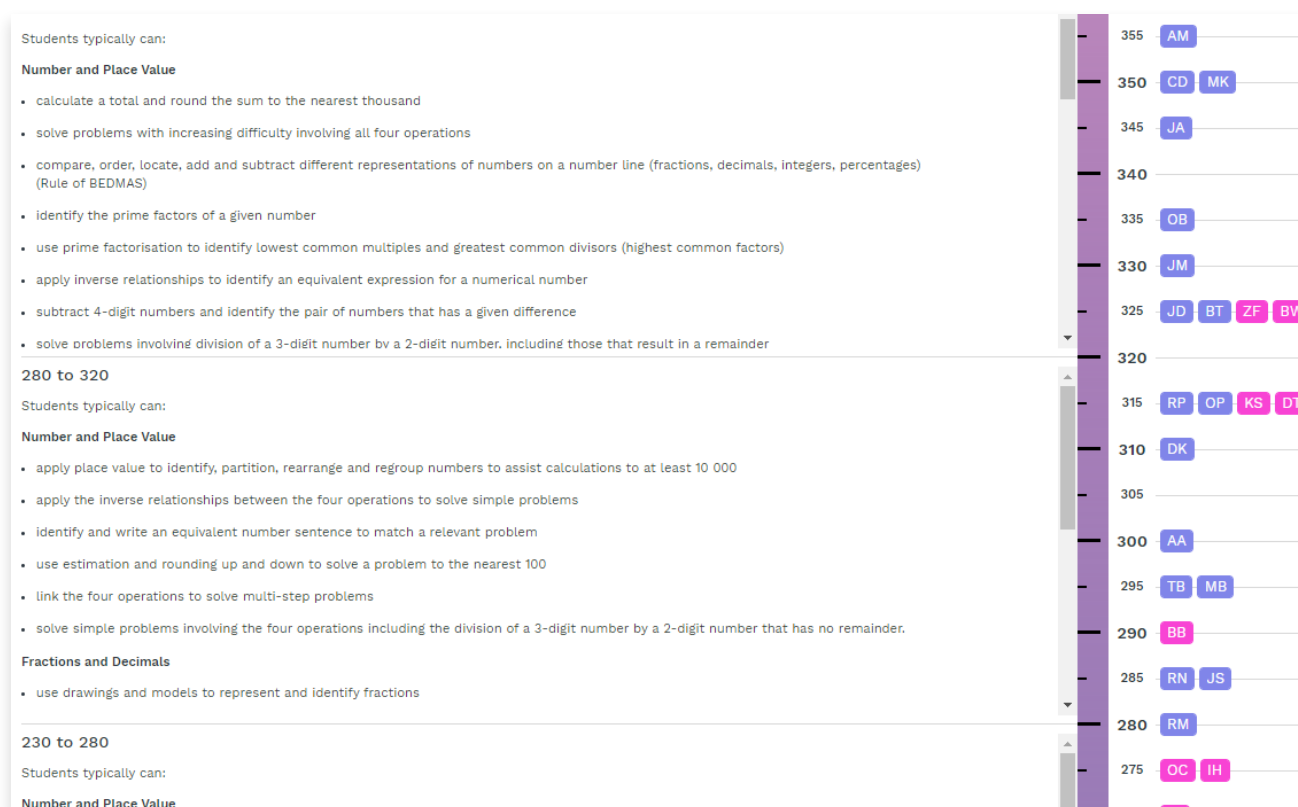


Figure 3 Students are shown relative to learning progressions

Teachers can also view their students' performance relative to detailed **teaching points**. (Figure 4)

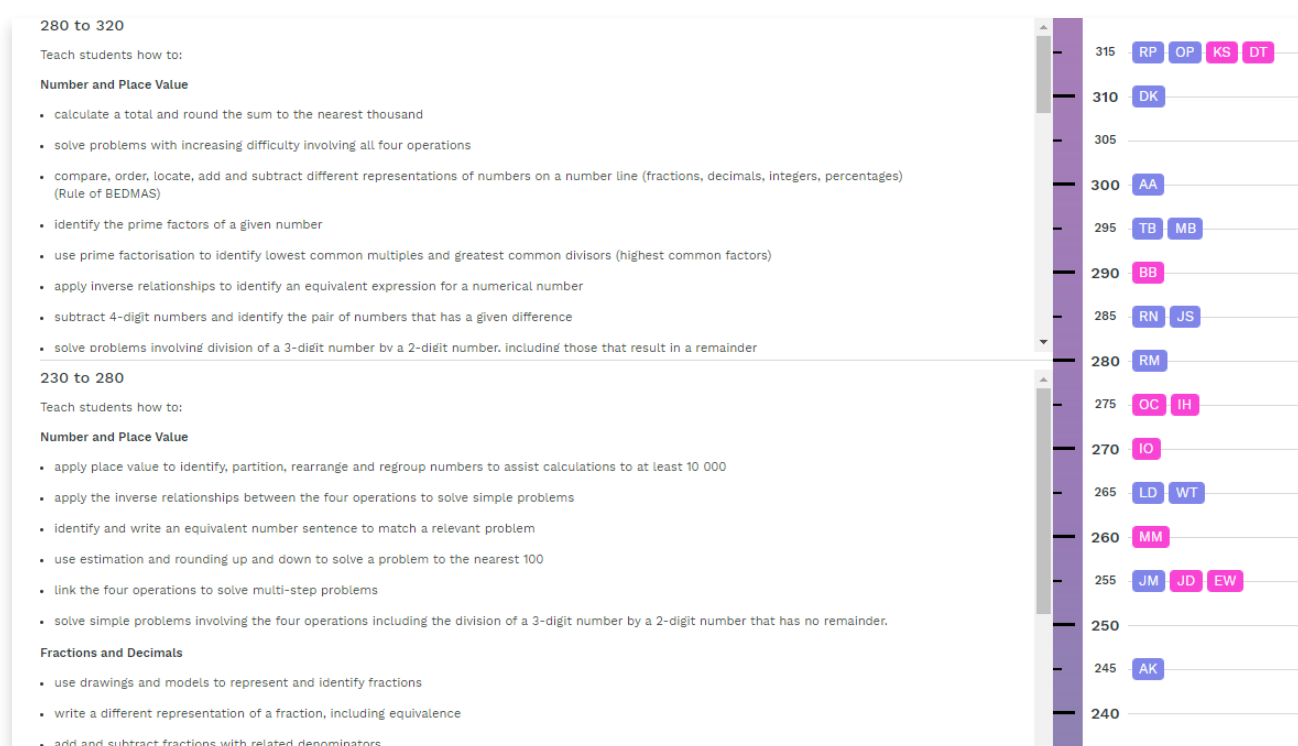


Figure 4 Students are shown relative to generic teaching points

The performance descriptors and teaching points are also provided in tabular form making it easy to use the information as a basis for **lesson and program planning**. (Figure 5)

230 – 280	<p>Students typically can:</p> <p>Number and Place Value</p> <ul style="list-style-type: none"> count and order numbers to and from 10 000 use place value to read, recognise, match, partition, regroup, rearrange and reproduce numbers up to 5-digits (ten thousands, thousands, hundreds, tens, ones) estimate the measurement on an uncalibrated scale to find the missing number arrange numbers from smallest to biggest, and vis versa (descending/ascending) apply the properties of odd and even numbers to solve simple problems involving the four operations identify the properties of 'sum' and 'difference' use place value to add and subtract 4- and 5-digit numbers match, write or identify a number sentence to solve a problem represent and apply multiplication as repeated addition represent and solve simple division problems by grouping into equal sets use multiplication facts to solve division problems and vis versa apply multiplication and division to solve 	<p>Teach students how to:</p> <p>Number and Place Value</p> <ul style="list-style-type: none"> apply place value to identify, partition, rearrange and regroup numbers to assist calculations to at least 10 000 apply the inverse relationships between the four operations to solve simple problems identify and write an equivalent number sentence to match a relevant problem use estimation and rounding up and down to solve a problem to the nearest 100 link the four operations to solve multi-step problems solve simple problems involving the four operations including the division of a 3-digit number by a 2-digit number that has no remainder. <p>Fractions and Decimals</p> <ul style="list-style-type: none"> use drawings and models to represent and identify fractions write a different representation of a fraction, including equivalence add and subtract fractions with related denominators calculate a fraction of a 2-digit number solve rate and ratio problems using fractions. <p>Money and Financial Mathematics</p> <ul style="list-style-type: none"> represent money values in multiple ways 	LD, AK, JM, AR, WT, FA, OC, JD, IH, MM, IO, AS, EW
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Figure 5 Tabulated student results provide easy-to-use information for lesson and program planning

There are reports that enable the school to easily view whole-school data (Figure 6).

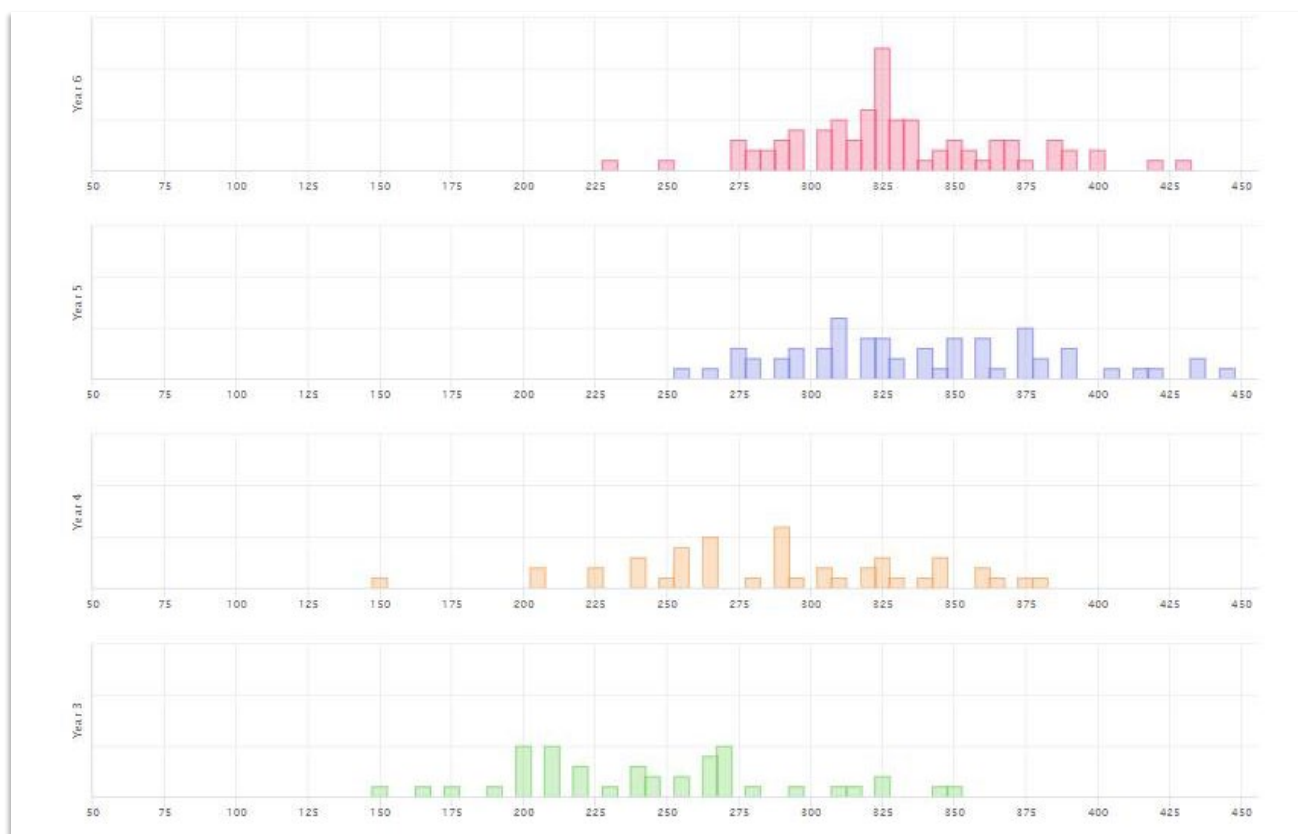


Figure 6 Whole-school data is presented for easy comparison

Teachers can evaluate the progress their students make **between each round** of assessment for the **cohort** (Figure 7) and for **individual students** (Figure 8, overleaf).

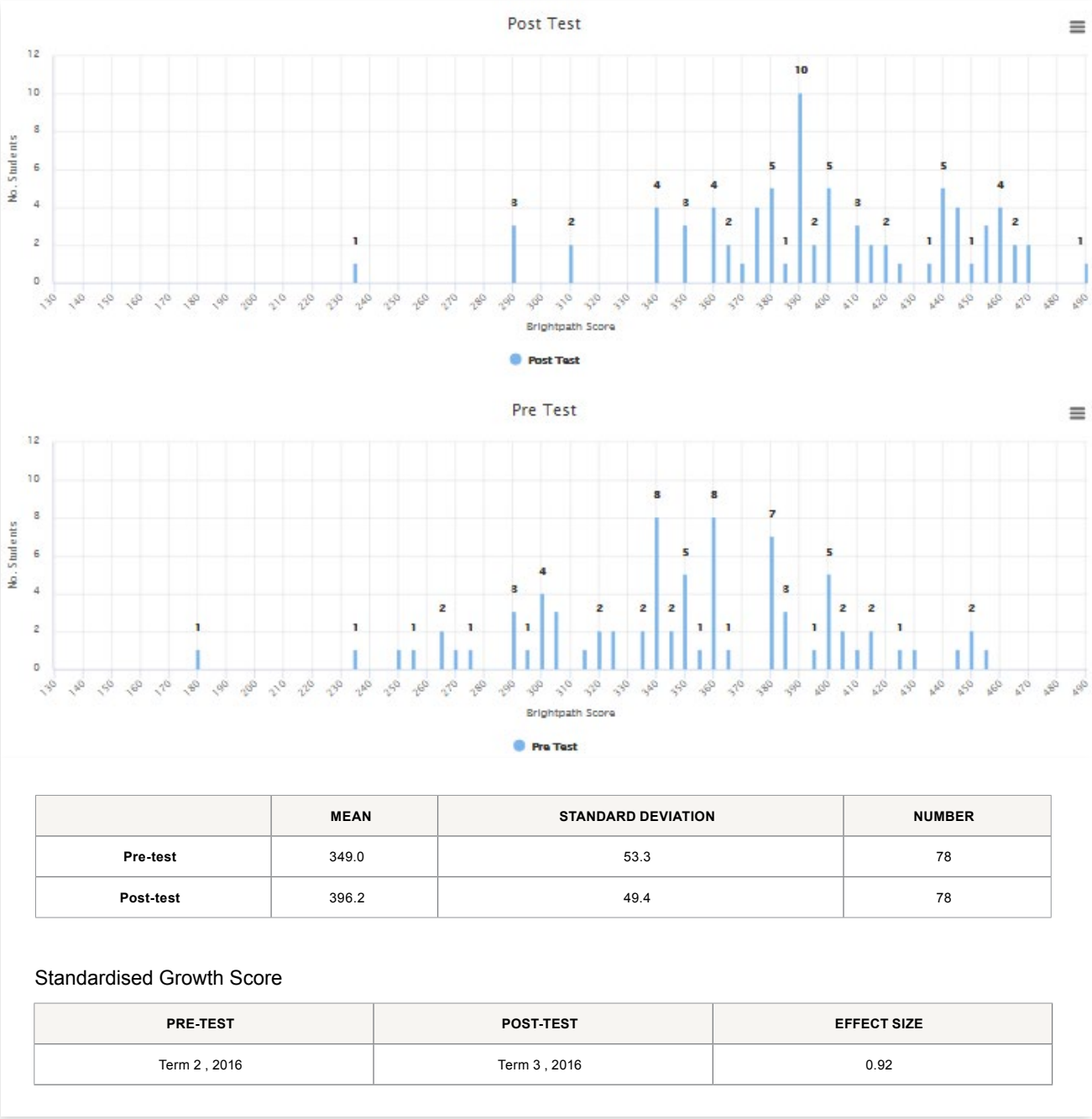


Figure 7 Pre and post-test data

Brightpath Supports Learning

The **Student Report** feature is a great way to provide students with feedback.

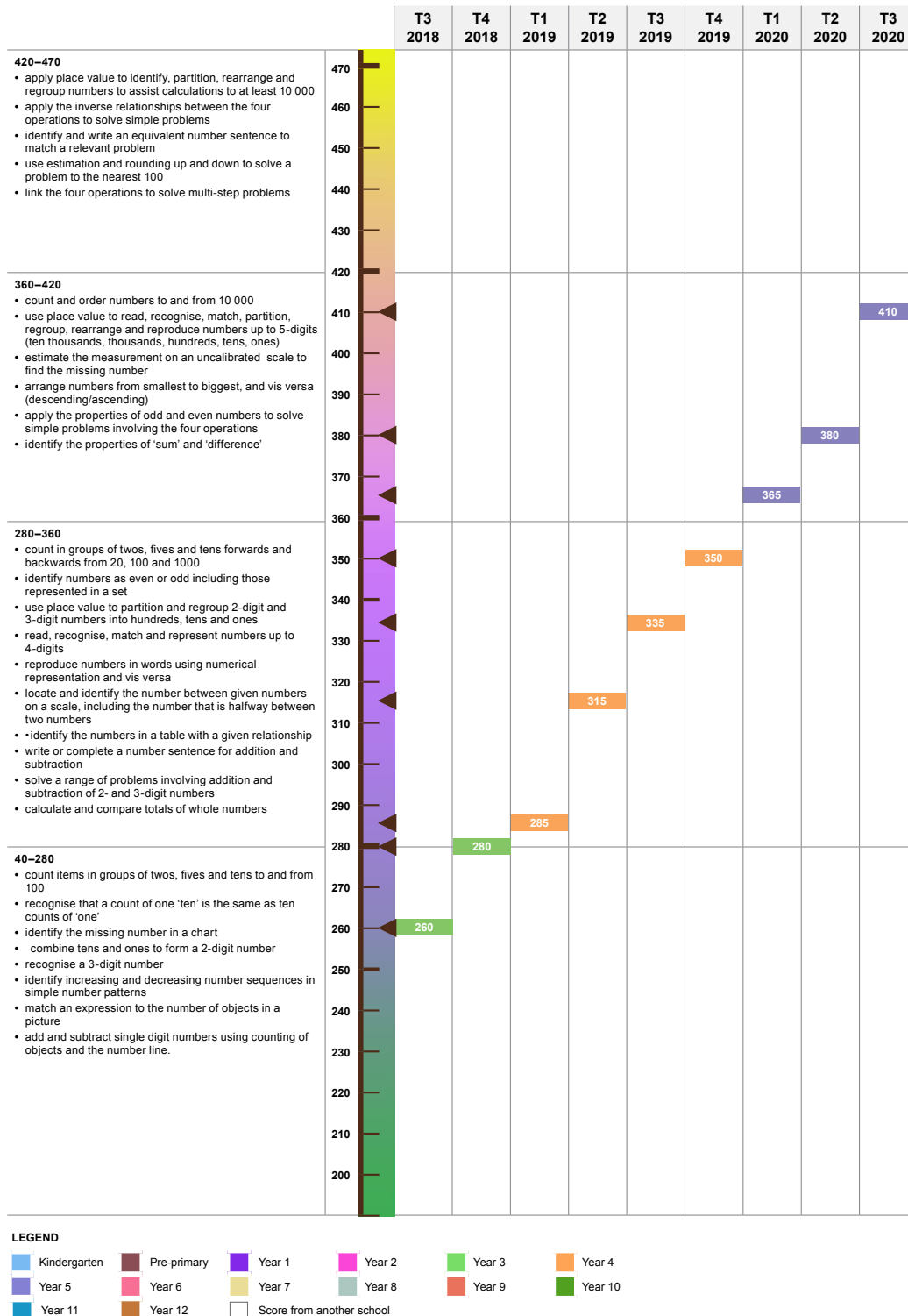
Register with Brightpath today!

REGISTER HERE



PROGRESS REPORT

Sammy Smith



brightpath

Figure 8

The *Individual Student Report* shows the progress a student has made between each round of assessments.

Schools can compare their schools' performance with the performance of all schools. (Figure 9)

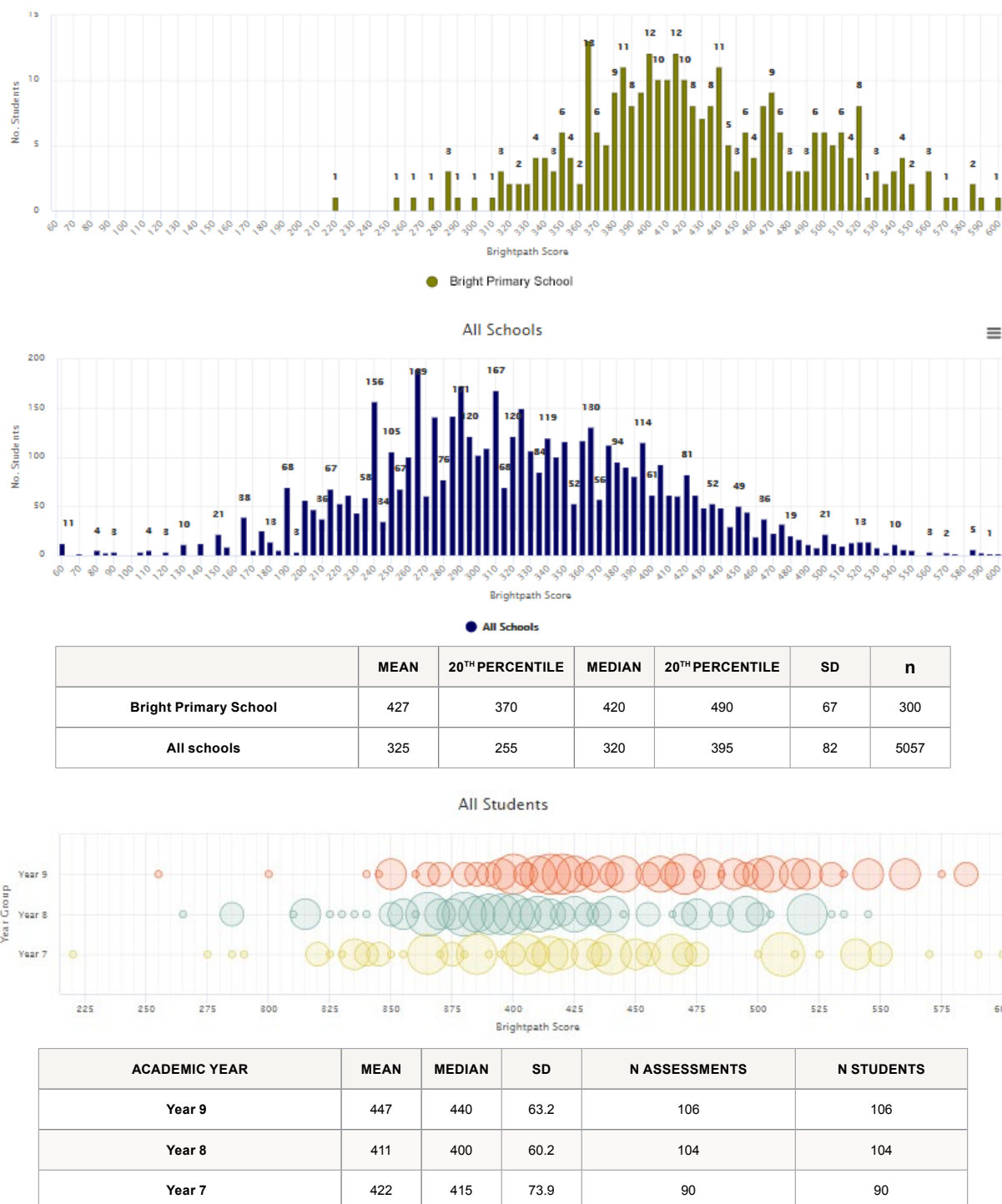


Figure 9 The School Comparison Report compares the performance of the school with all schools

Want to know more?

Register your interest here.

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