SATs Springboard

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What's Missing in KS2? – Maths & GPS



FREE resources to close the gap in KS2 learning

Here's where Springboard makes the difference

Across the academic year, over 30,000 pupils completed our GPS and maths diagnostics. Each one assessed children's understanding of curriculum objectives from years 3 to 6. The results reveal the questions most frequently answered incorrectly by year 6 pupils, highlighting the biggest learning gaps across the KS2 curriculum.

SATs Springboard is designed to close these gaps fast.

Backed by real diagnostic data and packed with free, targeted resources, it helps teachers tackle the hardest-to-teach content and give every child a clearer path to progress.

94%

of teachers who go for it, never want to go back to doing year 6 any other way!

> *"I wish I had found it earlier. I've taught for eight and a half years and it was that powerful in such a short period of time."*
>
> *Nathan Brierley, Year 6 Teacher, Brownhills West Primary*

> *"Truly the best... our class averages are rising at 5% a week"*
>
> *Sara Herriot, Head of School*

> *"Our children are at a significant disadvantage because their life chances are not as good as children from more affluent areas. What LbQ has done is level the playing field."*
>
> *James Clark, Headteacher, Dial Park Primary*

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WHAT'S MISSING IN KS2?

Content from the Year 3 curriculum accounts for approximately 10% of the SATs paper (ranging between 7% and 12% since 2017). Notably, two of the content domains identified here, Fractions and Calculations, are also the most heavily represented in the SATs.

YR3 MATHS

Question	Content Domain Ref and Objective	% of Y6 pupils answering correctly on the first attempt	Gap-filling resource Click the free resource links below	Did domain appear in SATs 2025?
2.2 A cube has ____ edges. *Enter the missing number.*	3G3b Recognise 3-D shapes in different orientations	33.7	Y3 Recognise and describe 3D shapes	No
1.3 What fraction goes in box A on the number line? *Put a forward slash (/) between the numerator and denominator. For example, one-half is 1/2.*	3F1c Recognise unit and non-unit fractions on a number line	43.5	Y3 Recognise unit and non-unit fractions on a number line Y3 Undersand unit and non-unit fractions	No
12.16 Ben weighs 3 kg 250 g of apples on the scales. He needs 500 grams of the apples to make a pie. After he has taken out the apples for the pie, the scales will show ____kg ____ g. *Select the kilograms **and** <grams parts of the answer.*	3C1 Subtract numbers mentally, including three-digit numbers 3M9c Subtract mass (kg/g)	45.2	Y3 Add and subtract mass Y3 Subtract numbers mentally	Yes for all
1.6 Sophie will draw a bar that is five squares high for week ____. *Enter the missing week number.*	3S1 Present data using bar charts	46.4	Y3/4 Present data using bar charts	No

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WHAT'S MISSING IN KS2?

It's probably no surprise that the perfect tense appeared as one of the weakest areas in GPS. While the writing objective "using the perfect form of verbs to mark relationships of time and cause" is intended to be taught in years 5 and 6, the English Appendix 2 (Vocabulary, Grammar and Punctuation) specifies that year 3 pupils must be taught to "use the present perfect form of verbs." However, this is a complex concept and clearly one that needs to be revisited throughout KS2.

Another of the weakest areas (prepositions) comes from the content domain G1 (Grammatical terms or word classes) - this is one of the two most heavily represented content domains in the GPS paper.

YR3 GPS

Question	Content Domain Ref and Objective	% of Y6 pupils answering correctly on the first attempt	Gap-filling resource Click the free resource links below	Did domain appear in SATs 2025?
8.9 Rewrite this sentence in the **past perfect.** *Tobi decides to leave.*	G4.1b Use the past perfect form of verbs	7	Y3 Grammar topic review: verb tenses, progressive and perfect verb forms	Yes
6.8 Which verbs complete this sentence in the **present perfect tense**? *Millie _____ to think that her teacher is more than a little unusual.*	G4.1b Use the present perfect form of verbs	35.7	Y3 Convert verbs from simple past tense to present perfect tense	Yes
8.8 Which sentence shows the word '*after*' used as a **preposition**?	G1.7 Identify and use prepositions	35.8	Y2/3 Use prepositions	Yes
4.12 Complete the sentence using a word formed from the root word **cover**. Type **one** word. *As she excavated the site, the archaeologist _____ some ancient pottery.*	G6.2 Use verb prefixes (dis-, de-, mis-, over-, and re-)	36.6	Y5/6 Spelling topic review: prefixes	Yes

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WHAT'S MISSING IN KS2?

Content from the Year 4 curriculum accounts for around one fifth of the SATs paper (ranging between 18% and 26% since 2017). Similarly to year 3, two of the content domains identified here, Fractions and Calculations, are also the most heavily represented in the SATs.

YR4 MATHS

Question Domains from Year 6	Content Domain Ref and Objective	% of Y6 pupils answering correctly on the first attempt	Gap-filling resource Click the free resource links below	Did domain appear in SATs 2025?
9.17 Mary has a recipe to make 12 buns. To make 48 buns, Mary needs ____ grams of butter and sugar in total. *Enter the missing number.*	4C8 Solve problems involving multiplying and adding 4C6a Recall and use division facts for the 12 times table 4C6b Use known and derived facts to multiply mentally	34.3	Y4 Solve problems involving multiplying and adding Y4 Practise 12 times table division facts Y4 Practise multiplying mentally (including multiplying 3 numbers)	Yes for all
6.17 What time **in the afternoon** does the school day finish in the 24-hour clock? *Give your answer in the **24-hour clock**. For example, half past 11 in the morning is 11:30.*	4M4b Convert time from analogue to digital 24-hour clocks	39.3	Y4 Convert between 12-hour and 24-hour times	Yes
2.8 The translation that moves triangle A onto triangle B is _____. *Select the **size and direction** of the translation.*	4P2 Describe movements between positions as translations to the left/right	48.1	Y4 Translate points and describe translations	Yes
1.8 What is $^3/_4$ as a decimal number?	4F6a Recognise the decimal equivalent of $^3/_4$	53.1	Y4 Recognise and write decimal equivalents to $^1/_4$, $^1/_2$, $^3/_4$	No

WHAT'S MISSING IN KS2?

Interestingly, all the weakest areas from year 4 fall under content domains G1 (Grammar) and G5 (Punctuation), which are also the two most heavily represented domains in the GPS paper. In fact, the individual substrand G5.8 is one of the most frequently tested areas across all SATs papers since 2017. A question on apostrophes for plural possession has appeared 14 times during that period.

YR4 GPS

Question	Content Domain Ref and Objective	% of Y6 pupils answering correctly on the first attempt	Gap-filling resource Click the free resource links below	Did domain appear in SATs 2025?
2.14 Type **one** word with an **apostrophe** to show that the changing room belongs to **all of the girls**. *The _____ changing room is on the left as you enter the swimming pool.*	G5.8 Use apostrophes for plural possession	30.9	Y3/4 Using apostrophes for plural possession	Yes
5.12 Type **one** word with **an apostrophe** to show that the rocket belonged to **all of the aliens**. *The _____ rocket had run out of fuel, so they had landed on Earth.*		37		
7.10 Which option makes the sentence start with an **adverbial**? _____ *the team were all prepared to do their best.*	G1.6a Identify and use adverbials	33	Y4 Using fronted adverbials	Yes
4.15 How many **determiners** are in this sentence? *Raheem didn't have any bread in the house, so he bought some wholemeal rolls.*	G1.8 Identify and use determiners	39.2	Y3/4 Use determiners	Yes

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WHAT'S MISSING IN KS2?

Content from the Year 5 curriculum accounts for around a quarter of the SATs paper (ranging between 18% and 32% since 2017). Once again, the two content domains most heavily represented in the SATs appear here. It's also worth noting that a Measurement question has consistently appeared as a weakness in every year from years 3 to 5. Although Measurement only makes up around 10% of the SATs paper, it is one of the largest domains in terms of content, with 44 objectives across KS2. This means there is a lot to cover, but it may not seem as high a priority compared to other domains.

YR5 MATHS

Question	Content Domain Ref and Objective	% of Y6 pupils answering correctly on the first attempt	Gap-filling resource Click the free resource links below	Did domain appear in SATs 2025?
7.17 Imogen makes a number using place value counters. Starting with the number represented by the counters, she counts forwards in hundred-thousands 3 times. *What is the **last number** in Imogen's sequence?*	5N1 Count forwards in steps of powers of 10 for any given number up to 1,000,000	31.4	Y5 Count in steps of powers of 10	No
10.9 Sort the following mixed number fractions into ascending order (smallest first).	5F3 Order fractions whose denominators are all multiples of the same number	33.9	Y5 Compare and order fractions with related denom-inators (proper, improper and mixed number fractions)	Yes
10.10 The volume of the pencil case is approxi-mately ____ cm^3. *Enter the missing number.*	5M8 Estimate volume of cuboids	37.7	Y5 Estimate volume and capacity	No
7.9 Select the **two** prime factors of 26.	5C5b Know and use the vocabulary of prime factors	39.9	Y5 Understand prime factors	No

WHAT'S MISSING IN KS2?

Another perfect form question appears here as one of the weakest areas - no surprise. However, the two questions year 5 pupils struggled with the most were based on morphology, specifically adding prefixes and suffixes.

YR5 GPS

Question	Content Domain Ref and Objective	% of Y6 pupils answering correctly on the first attempt	Gap-filling resource Click the free resource links below	Did domain appear in SATs 2025?
9.15 Use a **suffix** to change the noun ***sympathy*** into a verb that completes this sentence. Type the whole word. *When Dan saw Ashley's injuries, he couldn't help but _____ with him.*	G6.3 Convert nouns or adjectives into verbs using suffixes -ate, -ise, -ify	27.8	Y5/6 Adding suffixes -ate, -ise and -ify	Yes
12.14 Which **prefix** can you add to ***appeared*** to complete the sentence? Type the whole word. *The strange cat had _____ at the window.*	G6.2 Use verb prefixes (dis-, de-, mis-, over-, and re-)	37.8	Y5/6 Spelling topic review: prefixes	Yes
12.13 Which sentence is closest in meaning to the one below? *The monkey has managed to open the gate of its enclosure and escape!*	G4.1b Use the perfect form of verbs to mark relationships of time and cause	41.4	Y5/6 Use the perfect verb form to mark relationships of time and cause	Yes
4.18 Which sentence is in **Standard English**?	G7.1 Standard English G7.1 Use Standard English verb inflections	52.8	Y3/4 Use Standard and non-Standard English Y3/4 Standard English verb inflections	Yes

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WHAT'S MISSING IN KS2?

Content from the Year 6 curriculum makes up the largest proportion of the SATs paper, ranging from 37% to 47% since 2017. Two of the weakest areas identified fall under Algebra, which is not surprising given that it is only introduced in year 6. In recent years, Algebra has accounted for just 2% to 7% of the test.

YR6 MATHS

Question	Content Domain Ref and Objective	% of Y6 pupils answering correctly on the first attempt	Gap-filling resource Click the free resource links below	Did domain appear in SATs 2025?
10.15 *3m + n = 11. m* and *n* are both whole numbers greater than 1. How many **different pairs of values** are possible solutions?	6A5 Enumerate possibilities of combinations of two variable	28.4	Y6 Find pairs of values in equations with two variables	Yes
7.14 Letter ____ shows the **diameter** of the circle. *Enter the missing letter.*	6G5 Illustrate and name the diameter of a circle	32.1	Y6 Name and calculate parts of a circle	No
7.12 *Sort the following fractions into descending order (largest first).*	6F3 Order fractions with different denominators	38.9	Y6 Compare and order proper fractions with different denominators	No
9.15 A rectangle with side lengths s centimetres and t centimetres has a perimeter of 22 centimetres. This can be represented with the equation 2s + 2t = 22. *Select t**wo pairs of values** that are possible combinations for the values of s and t.*	6A4 Find pairs of numbers that satisfy an equation with two unknowns	41.4	Y6 Find pairs of values in equations with two variables	Yes

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WHAT'S MISSING IN KS2?

As in year 4, most of the weakest areas from Year 6 fall under the two most heavily represented domains in the GPS paper, G1 and G5 (and both G5 questions focused on the use of colons). One of the questions that was answered correctly the least, with only 16.9% of pupils getting it right, involved identifying objects. Many children seemed to confuse the grammatical concept of an object with a noun.

YR6 GPS

Question	Content Domain Ref and Objective	% of Y6 pupils answering correctly on the first attempt	Gap-filling resource Click the free resource links below	Did domain appear in SATs 2025?
12.19 What are the **two objects** in this sentence? *Ava made some cupcakes, and she decorated them with icing.*	G1.9 Identify the object of a sentence	16.9	Y6 Identifying the subject and object of a sentence	Yes
10.19 Which punctuation mark completes this sentence?	G5.10 Use colons to mark the boundary between main clauses	32.5	Y5/6 Using semi-colons, colons and dashes between main clauses	Yes
12.18 Which sentence is punctuated correctly?	G5.10 Use colons to introduce lists	37.9	Y6 Use semi-colons in a list	Yes
8.19 Which sentence is written in the **passive voice**?	G4.4 Identify and use the passive voice	39.1	Y6 Understand active and passive voice	Yes

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