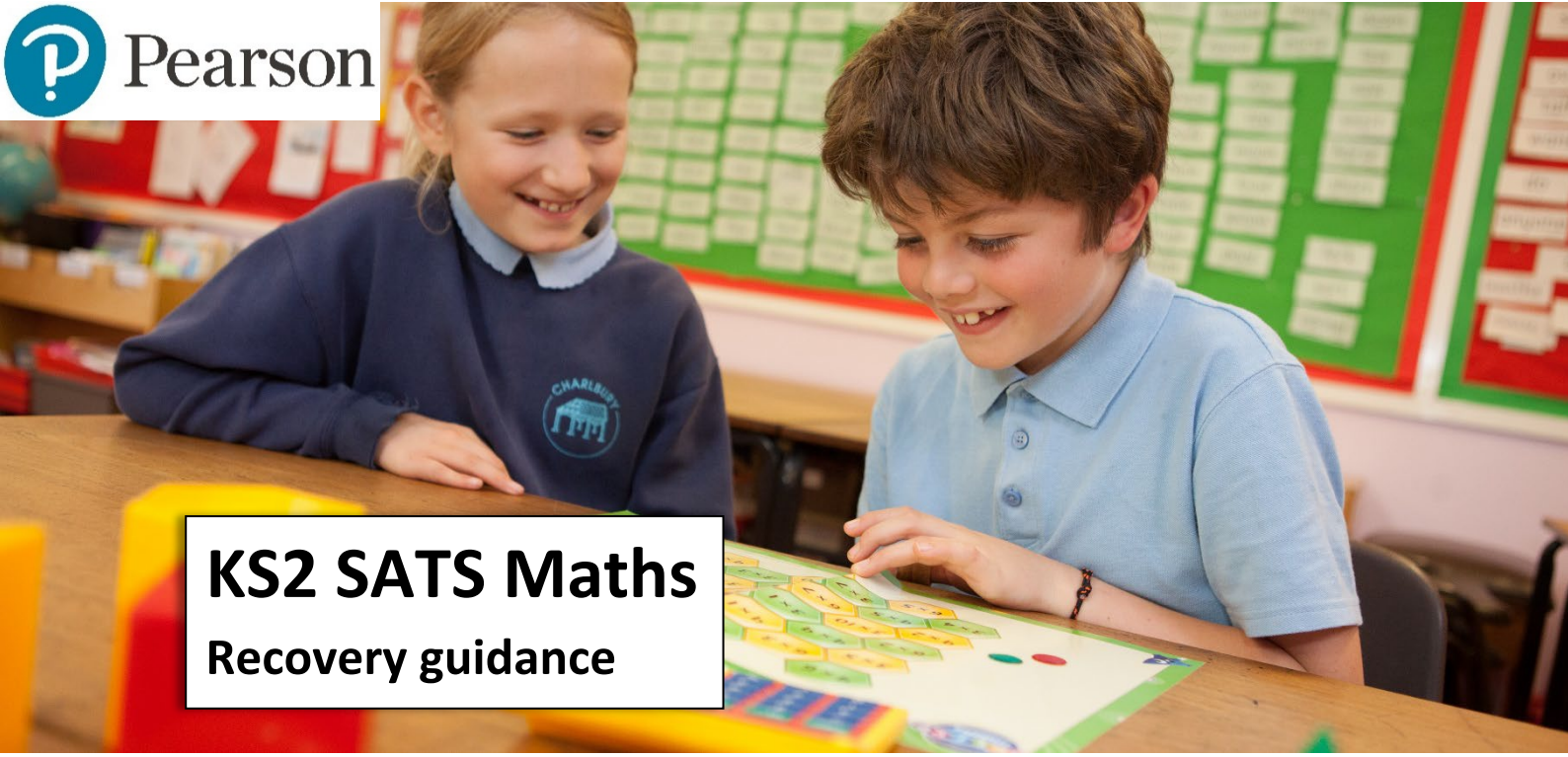


KS2 SATS Maths

Recovery guidance

Revise KS2 SATS Maths Targeted Practice Books and Ten-Minute Tests

The COVID-19 pandemic has been disruptive for all learners, resulting in wider attainment gaps and reduced motivation. Disadvantaged students and those from lower socio-economic backgrounds have fallen further behind than their peers during this time and face greater barriers to recovering lost learning and boosting engagement and confidence.

This booklet is intended to help teachers and teaching assistants deliver structured interventions and to provide targeted academic support for primary school students looking to build their confidence and skills in Mathematics and 'catch-up' for their Year 6 National Tests in Mathematics.

Targeted academic support

There are a wide range of evidence-based strategies schools can implement to support recovery for all their students. These include:

- **Diagnostics** to help target interventions and focus on a small number of learning goals
- **One-to-one and small group interventions** linked to in-class teaching and the curriculum to provide tailored support in a structured setting
- **Homework** and homework clubs to help students progress towards mastery of key learning objectives and to develop effective learning habits

There is extensive suggested guidance for planning and delivering intervention sessions available via the Education Endowment Fund: [educationendowmentfoundation.org.uk/.](educationendowmentfoundation.org.uk/)

About the resources

- The Targeted Practice Books are organised using a one-topic-per-page format with helpful hints, checkboxes to track progress and answers.
- The Ten-Minute Tests book contain exam-style questions to familiarise students with the approach of the papers. It also includes scorecards and fully worked answers.

There is plenty of crossover of topics between the books, so they can be used together to provide the resources for short 'catch-up' activities on a wide range of topics or skills.

KS2 SATS Maths Targeted Practice Books

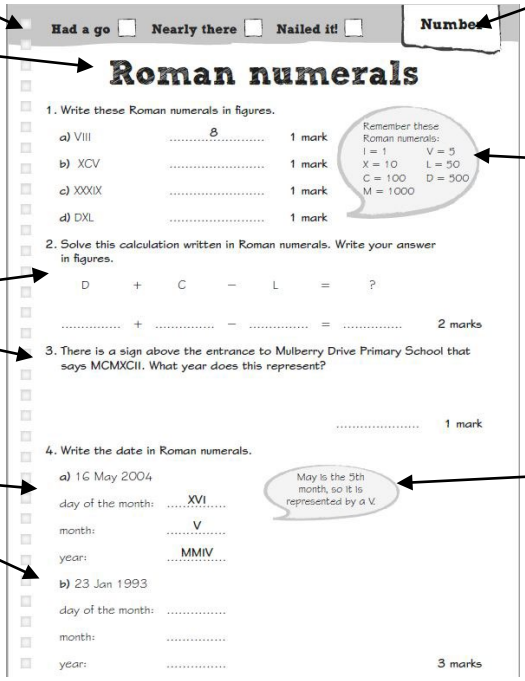
These books are designed to provide simple, brilliantly smart support to Year 6 learners preparing for the National Curriculum tests.

Checkboxes at the head of each page help students track their progress:

- *Had a go* – tick when the student has read the page
- *Nearly there* – tick when the student has understood the page quite well
- *Nailed it!* – tick when the student has understood the page really well

Organise their study

One-topic-per-page format that helps students revise more quickly, without the hassle


Had a go ☐ Nearly there ☐ Nailed it! ☐ Number

Roman numerals

1. Write these Roman numerals in figures.
   a) VIII ..8.. 1 mark
   b) XCV ..... 1 mark
   c) XXXIX ..... 1 mark
   d) DXL ..... 1 mark

Remember these Roman numerals:
I = 1 V = 5
X = 10 L = 50
C = 100 D = 500
M = 1000

2. Solve this calculation written in Roman numerals. Write your answer in figures.
   D + C − L = ?
   ..... + ... − ..... = ... 2 marks

3. There is a sign above the entrance to Mulberry Drive Primary School that says MCMXCII. What year does this represent?
   ..... 1 mark

4. Write the date in Roman numerals.
   a) 16 May 2004
   day of the month: ..XVI..
   month: ..V..
   year: ..MMIV..
   b) 23 Jan 1993
   day of the month: .....
   month: .....
   year: ..... 3 marks

May is the 5th month, so it is represented by a V.

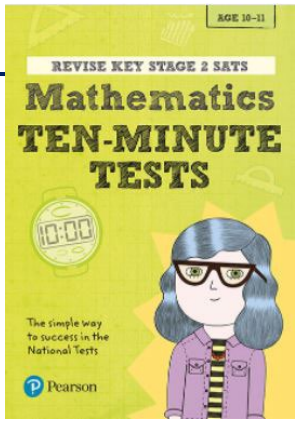
Speed up their study with helpful hints

Loads of practice questions to help students build their skills

Simple structure that makes it easy to follow, with write-in features that help students 'own' the books.

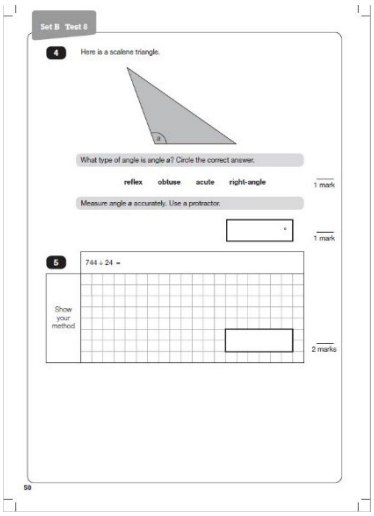
Tips that help students understand concepts and the skills they will need to complete questions

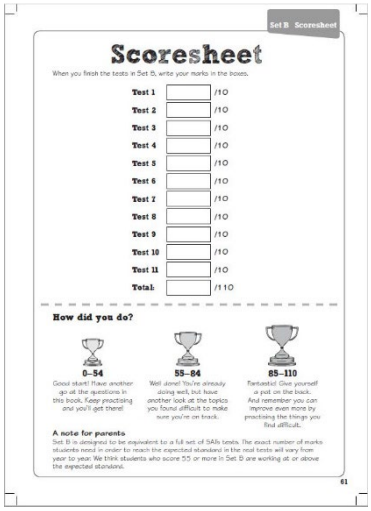
KS2 SATS Maths Ten-Minute Tests



This book contains two full sets of Ten-Minute Tests, with scorecards and answers to help students:

- Build their confidence with answering questions
- Practise answering questions by writing straight into the book
- Perfect their responses, with fully worked answers





You have 10 minutes to complete each test. The number under each line at the side of the page tells the student the maximum number of marks for the question.

Combining the books for 'catch-up' activities

The content of each of the books has been mapped into the grid below, organised by topic. Each topic on the grid is covered by one or more of the Targeted Practice Books and includes one or more exam-style questions from the Ten-Minute Tests books.

The topics have been listed in alphabetical order to make finding target 'catch-up' topics easy to find.

Note that the exam-style questions from the Ten-Minute Tests book are a mix of arithmetic questions and reasoning questions that require the student to solve problems. Some questions will be straightforward for many students, requiring a single mental or written calculation. Other questions will be more challenging, requiring interpretation and a multi-part calculation. For that reason, it is advisable to check the suggested questions for this book before you start a 'catch-up' activity to assess their difficulty and appropriateness for the student concerned.

Not all topics in the books have been included in the grid. For example, estimating is not included. This is because there are no questions in the Ten-Minute Tests book directly about estimating. Students should be reminded that such skills are still important, even if they are not directly tested through questions in the SATS papers. Indeed, students should be encouraged to routinely use estimation and inverse operations to improve their arithmetic accuracy.

Planning a ‘catch-up’ activity

Every student will have different needs. Some will be confident on some topics and less so on others. Understanding your student’s situation is the vital first step in supporting them to catch up on lost learning. This resource will model some suggested strategies and map the content of these books to help guide you in planning personalised sessions for your students.

In general, the model for a short ‘catch-up’ activity using these books could include:

1. Reviewing any prior learning
2. Working through the questions in Target Practice Book(s), supporting the student
3. Having the student answer the questions in the Ten-Minute Tests book, with support if required
4. Discussing progress and address any misconceptions
5. Planning next steps

The following exemplar activity follows this model.

Exemplar activity: Algebra – Using letters

This exemplar activity demonstrates how you can use these books to support students with a single topic. While this detailed example covers only a single topic, it models an approach that you will be able to apply to other topics.

Prior learning	Most students will have some experience of algebraic thinking from previous years. For example, simple input/output function machines or Cuisenaire rods. They will also have used simple formulas, such as area = ½ (base x height) for calculating the area of a triangle. To review what a student knows, plan a few simple questions that help them recall that prior learning. For example: because Cuisenaire rods do not have a defined value, they can be used to make the link between an unknown value (a variable) and a letter in algebra. Line up a rod (e.g., black) with a pair of rods with the same overall length (purple and green). Ask the student to write this relationship as an equation using letters for the colours, i.e., b = p + g.
Number, Ratio and Algebra Targeted Practice Book **page 35**	Work through page 35 together. It is important to actively support students, encouraging them to articulate their understanding and to identify things blocking their progress. For example, in Q1. B), some students will not be familiar with the algebraic format of 2*m* (meaning multiply *m* by 2). Depending on the confidence and attainment of your students, you may wish to demonstrate how to answer some of the questions or ask them to answer the questions and explain how they reached their answers. Use open questions to assess your students’ understanding and thinking: How did you work that out? Why do you think that? What made you decide to do it that way? Can you think of another way this could be done?

	The questions on page 35 increase in difficulty, meaning Q3 and Q4 may require more support. In Q4, encourage students to use a letter to represent Mandy's original number (the unknown value) using inverse operations (i.e., $m = 24 \div 2 - 5$). Ensure that students understand the key mathematical terms on the page (e.g., value, sum, multiple, inverse operation).
Mathematics Ten-Minute Tests Book **pg 6 Set A Test 3 Q6** **pg 16 Set A Test 7 Q3** **pg 26 Set A Test 10 Q3** **pg 32 Set B Test 1 Q1**	This part of the activity should be less supported as it gives students the opportunity to answer exam-style questions on their own. Explain to students that these questions are like the ones they will encounter in their SATS papers, and that some questions may be harder than others. Alternatively, if more appropriate, support students in the same way as you did with page 35. You may choose to include or exclude some of the questions, depending on the confidence and attainment of your students. For example, Q6 on page 6 and Q3 on page 16 are similar in difficulty to Q1 and Q2 on page 35 of the Number, Ratio and Algebra Target Practice Book. On the other hand, Q3 on page 26 and Q1 on page 32 are more challenging and more in line with Q3 and Q4 on page 35. Go through the answers together. You may wish to share the mark scheme with its worked examples (pages 62 to 77).
Progress and misconceptions	Review students' attainment by recording their scores as they go. The books all include marks for each question. In addition, the Ten-Minute Tests book includes scorecards for the sets of tests (on p. 31 and p. 61). Because you are not using the actual timed tests, you could instead tally students' marks in the boxes on the scorecards, so that over time, a score for each test and set is generated. The scoresheets also include advice on how these scores relate to expected standards. At the end of the activity, with wrong answers, it is important to recognise and correct any misconceptions, so students will learn from the mistakes made. For example: when students first encounter algebra, they may misunderstand that a variable is indeed variable. In Q3 on page 35, students are asked to find the value of n. In a), $n = 5$. Some students will think that this means that $n = 5$ in both b) and c) too. This results from a lack of understanding that the n represents an unknown value that is determined using the other information in each brick puzzle.
Next steps	Use questions to help students reflect on the activity and what they feel would help them progress further: What did you find easy about this activity? What did you find difficult? How confident do you feel? What would help you improve? What must you remember? What would you like to learn next? Ask students to tick one of the progress checkboxes on page 35. Use the students' response to plan your next activities. For example, if a student identifies a remaining misconception about variables (see above), it may be helpful to further address this by examining equations that contain 'two unknowns' (i.e., more than one variable).

Combining the books for ‘catch-up’ activities

This grid maps the key topics covered in these books. It shows where each topic is covered in each Targeted Practice Book and maps this across to practice questions in the Ten-Minute Tests book.

Topic	Objective	Arithmetic Targeted Practice Book	Number, Ratio and Algebra Targeted Practice Book	Geometry, Measures and Statistics Targeted Practice Book	Mathematics Ten-Minute Tests
2D shapes	Names and properties of 2D shapes			p. 18, p. 19	p. 50 Set B Test 8 Q4 p. 57 Set B Test 10 Q6
2D shapes	Translation			p. 27	p. 4 Set A Test 2 Q5 p. 14 Set A Test 6 Q4
2D shapes	Reflection			p. 28	p. 28 Set A Test 11 Q1 p. 40 Set B Test 4 Q4
3D shapes				p. 21	p. 28 Set A Test 11 Q3 p. 52 Set B Test 9 Q3
Addition	Mental and written addition	p. 1, p. 2	p. 7		p. 5 Set A Test 3 Q1 p. 7 Set A Test 4 Q1 p. 9 Set A Test 4 Q6 p. 17 Set A Test 7 Q6 p. 20 Set A Test 8 Q4 p. 43 Set B Test 6 Q1 p. 46 Set B Test 7 Q1 p. 51 Set B Test 8 Q6
Algebra	Using letters		p. 35		p. 6 Set A Test 3 Q6 p. 16 Set A Test 7 Q3 p. 26 Set A Test 10 Q3 p. 32 Set B Test 1 Q1
Algebra	Simple formulas		p. 36		p. 45 Set B Test 6 Q6
Algebra	Two unknowns		p. 37		p. 19 Set A Test 8 Q3 p. 29 Set A Test 11 Q5 p. 34 Set B Test 2 Q2 p. 38 Set B Test 3 Q4

Topic	Objective	Arithmetic Targeted Practice Book	Number, Ratio and Algebra Targeted Practice Book	Geometry, Measures and Statistics Targeted Practice Book	Mathematics Ten-Minute Tests
Algebra	Linear and non-linear sequences		p. 38		p. 22 Set A Test 9 Q2 p. 30 Set A Test 11 Q7 p. 49 Set B Test 8 Q3
Angles				p. 23, p. 24, p. 25	p. 8 Set A Test 4 Q4 p. 50 Set B Test 8 Q4
Area				p. 11, p. 13, p. 14	p. 36 Set B Test 2 Q6
Bar charts				p. 31, p. 32	p. 55 Set B Test 10 Q1
Circles				p. 17	p. 23 Set A Test 9 Q4
Coordinates				p. 26	p. 12 Set A Test 5 Q6 p. 59 Set B Test 11 Q6
Compound shapes	Perimeter and area			p. 12	p. 20 Set A Test 8 Q5
Cube numbers		p. 15	p. 14		p. 5 Set A Test 3 Q3 p. 22 Set A Test 9 Q1 p. 24 Set A Test 9 Q5 p. 35 Set B Test 2 Q5
Decimals	Place value and ordering	p. 21	p. 3		p. 9 Set A Test 4 Q8 p. 10 Set A Test 5 Q2 p. 32 Set B Test 1 Q2 p. 37 Set B Test 3 Q2 p. 39 Set B Test 4 Q2 p. 54 Set B Test 9 Q8 p. 55 Set B Test 10 Q2
Decimals	Adding decimals	p. 17, p. 18	p. 3		p. 23 Set A Test 9 Q3 p. 24 Set A Test 9 Q6 p. 41 Set B Test 5 Q3 p. 47 Set B Test 7 Q6 p. 48 Set B Test 7 Q6 p. 52 Set B Test 9 Q1 p. 60 Set B Test 11 Q8

Topic	Objective	Arithmetic Targeted Practice Book	Number, Ratio and Algebra Targeted Practice Book	Geometry, Measures and Statistics Targeted Practice Book	Mathematics Ten-Minute Tests
Decimals	Subtracting decimals	p. 19, p. 20			p. 6 Set A Test 3 Q5 p. 28 Set A Test 11 Q1 p. 34 Set B Test 2 Q1 p. 39 Set B Test 4 Q1 p. 54 Set B Test 9 Q7
Decimals	Multiplying with decimals	p. 21, p. 22, p. 23	p. 27		p. 1 Set A Test 1 Q2 p. 5 Set A Test 3 Q4 p. 23 Set A Test 9 Q4 p. 37 Set B Test 3 Q1 p. 37 Set B Test 3 Q2 p. 58 Set B Test 11 Q1
Decimals	Dividing with decimal answers	p. 25, p. 26			p. 24 Set A Test 9 Q6 p. 32 Set B Test 1 Q3
Division	Short division	p. 11, p. 12	p. 17		p. 10 Set A Test 5 Q1 p. 19 Set A Test 8 Q1 p. 27 Set A Test 10 Q6 p. 32 Set B Test 1 Q3 p. 40 Set B Test 4 Q6 p. 47 Set B Test 7 Q3
Division	Long division	p. 13, p. 14	p. 18		p. 2 Set A Test 1 Q6 p. 4 Set A Test 2 Q4 p. 24 Set A Test 9 Q7 p. 32 Set B Test 1 Q4 p. 45 Set B Test 6 Q7 p. 50 Set B Test 8 Q5
Division	Dividing by 10, 100, and 1,000	p. 10, p. 24			p. 14 Set A Test 6 Q5 p. 32 Set B Test 1 Q2 p. 44 Set B Test 6 Q3
Factors			p. 11		p. 47 Set B Test 7 Q4

Topic	Objective	Arithmetic Targeted Practice Book	Number, Ratio and Algebra Targeted Practice Book	Geometry, Measures and Statistics Targeted Practice Book	Mathematics Ten-Minute Tests
Fractions	Comparing fractions and equivalent fractions		p. 21, p. 22		p. 15 Set A Test 6 Q7 p. 19 Set A Test 8 Q2 p. 40 Set B Test 4 Q7 p. 48 Set B Test 7 Q6
Fractions	Adding fractions	p. 27, p. 28, p. 31	p. 23		p. 10 Set A Test 5 Q3 p. 36 Set B Test 2 Q7 p. 37 Set B Test 3 Q3 p. 48 Set B Test 7 Q6
Fractions	Subtracting fractions	p. 29, p. 30, p. 31	p. 23		p. 29 Set A Test 11 Q6 p. 53 Set B Test 9 Q6 p. 59 Set B Test 11 Q5
Fractions	Multiplying fractions	p. 32, p. 33, p. 36	p. 24		p. 17 Set A Test 7 Q5 p. 23 Set A Test 9 Q4 p. 49 Set B Test 8 Q2 p. 56 Set B Test 10 Q5 p. 58 Set B Test 11 Q3
Fractions	Dividing fractions	p. 34, p. 35, p. 36	p. 25		p. 13 Set A Test 6 Q3 p. 44 Set B Test 6 Q3
Fractions	Fractions and decimals equivalence		p. 26		p. 17 Set A Test 7 Q4 p. 27 Set A Test 10 Q5 p. 30 Set A Test 11 Q8 p. 42 Set B Test 5 Q5 p. 59 Set B Test 11 Q4
Fractions	Fractions of amounts		p. 20		p. 1 Set A Test 1 Q5 p. 6 Set A Test 3 Q8 p. 17 Set A Test 7 Q5 p. 37 Set B Test 3 Q1
Length				p. 1	p. 5 Set A Test 3 Q2 p. 51 Set B Test 8 Q7 p. 57 Set B Test 10 Q7
Line graphs				p. 35, p. 36	p. 46 Set B Test 7 Q2

Topic	Objective	Arithmetic Targeted Practice Book	Number, Ratio and Algebra Targeted Practice Book	Geometry, Measures and Statistics Targeted Practice Book	Mathematics Ten-Minute Tests
Mean				p. 37, p. 38	p. 1 Set A Test 1 Q1 p. 41 Set B Test 5 Q3
Money				p. 10	p. 6 Set A Test 3 Q8 p. 15 Set A Test 6 Q6 p. 24 Set A Test 9 Q6 p. 34 Set B Test 2 Q2 p. 37 Set B Test 3 Q1 p. 54 Set B Test 9 Q7 p. 58 Set B Test 11 Q2
Multiples			p. 10		p. 12 Set A Test 5 Q7 p. 47 Set B Test 7 Q4 p. 60 Set B Test 11 Q7
Multiplication	Short multiplication	p. 6, p. 7	p. 15		p. 3 Set A Test 2 Q2 p. 29 Set A Test 11 Q4 p. 33 Set B Test 1 Q5 p. 44 Set B Test 6 Q5
Multiplication	Long multiplication	p. 8, p. 9	p. 16		p. 6 Set A Test 3 Q7 p. 11 Set A Test 5 Q5 p. 16 Set A Test 7 Q2 p. 26 Set A Test 10 Q4 p. 38 Set B Test 3 Q6 p. 42 Set B Test 5 Q6 p. 53 Set B Test 9 Q4
Multiplication	Multiplying by 10, 100 and 1,000	p. 5			p. 4 Set A Test 2 Q6 p. 9 Set A Test 4 Q7 p. 32 Set B Test 1 Q2 p. 37 Set B Test 3 Q1 p. 55 Set B Test 10 Q2
Negative numbers			p. 2		p. 16 Set A Test 7 Q1 p. 30 Set A Test 11 Q7 p. 55 Set B Test 10 Q1

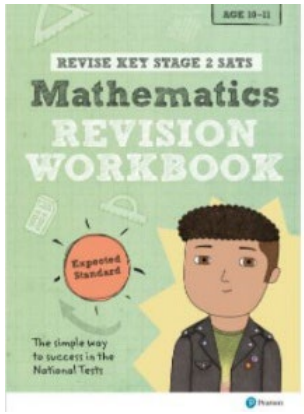
Topic	Objective	Arithmetic Targeted Practice Book	Number, Ratio and Algebra Targeted Practice Book	Geometry, Measures and Statistics Targeted Practice Book	Mathematics Ten-Minute Tests
Nets				p. 22	p. 11 Set A Test 5 Q4 p. 18 Set A Test 7 Q7 p. 43 Set B Test 6 Q2
Mixed operations		p. 16	p. 19		p. 2 Set A Test 1 Q4 p. 21 Set A Test 8 Q6 p. 24 Set A Test 9 Q6 p. 39 Set B Test 4 Q3 p. 56 Set B Test 10 Q4
Percentages		p. 37, p. 38	p. 28, p. 29, p. 30		p. 1 Set A Test 1 Q3 p. 11 Set A Test 5 Q4 p. 25 Set A Test 10 Q2 p. 33 Set B Test 1 Q6 p. 35 Set B Test 2 Q4 p. 38 Set B Test 3 Q5 p. 39 Set B Test 4 Q4 p. 47 Set B Test 7 Q5 p. 52 Set B Test 9 Q2
Perimeter				p. 11	p. 20 Set A Test 8 Q5
Pie charts				p. 33, p. 34	p. 25 Set A Test 10 Q2 p. 56 Set B Test 10 Q3
Place value			p. 1		p. 44 Set B Test 6 Q4 p. 49 Set B Test 8 Q1
Prime numbers			p. 12		p. 47 Set B Test 7 Q4
Quadrilaterals				p. 16	p. 28 Set A Test 11 Q1 p. 51 Set B Test 8 Q7 p. 59 Set B Test 11 Q6

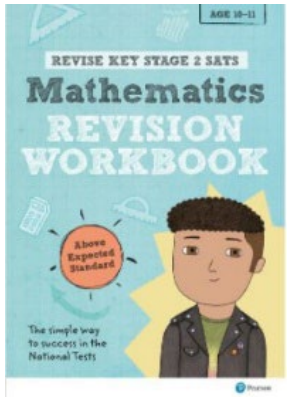
Topic	Objective	Arithmetic Targeted Practice Book	Number, Ratio and Algebra Targeted Practice Book	Geometry, Measures and Statistics Targeted Practice Book	Mathematics Ten-Minute Tests
Ratio			p. 31, p. 32		p. 15 Set A Test 6 Q6 p. 21 Set A Test 8 Q8 p. 41 Set B Test 5 Q1 p. 57 Set B Test 10 Q7 p. 58 Set B Test 11 Q2
Reading scales				p. 4	p. 13 Set A Test 6 Q2 p. 37 Set B Test 3 Q2 p. 48 Set B Test 7 Q7
Roman numerals			p. 6		p. 13 Set A Test 6 Q1
Rounding			p. 4, p. 5		p. 3 Set A Test 2 Q1 p. 7 Set A Test 4 Q2 p. 40 Set B Test 4 Q5 p. 54 Set B Test 9 Q8
Scale factors			p. 34		p. 4 Set A Test 2 Q5 p. 12 Set A Test 5 Q6 p. 51 Set B Test 8 Q7
Square numbers		p. 15	p. 13		p. 5 Set A Test 3 Q3 p. 15 Set A Test 6 Q8 p. 42 Set B Test 5 Q7 p. 45 Set B Test 6 Q8 p. 47 Set B Test 7 Q4
Subtraction	Mental and written subtraction	p. 3, p. 4	p. 8		p. 8 Set A Test 4 Q5 p. 15 Set A Test 6 Q8 p. 21 Set A Test 8 Q7 p. 22 Set A Test 9 Q1 p. 25 Set A Test 10 Q1 p. 30 Set A Test 11 Q7 p. 33 Set B Test 1 Q7 p. 35 Set B Test 2 Q3 p. 41 Set B Test 5 Q2

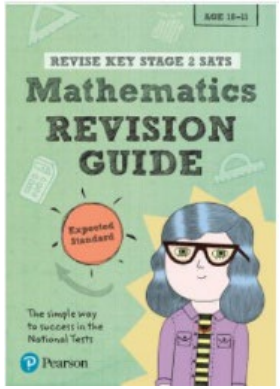
Topic	Objective	Arithmetic Targeted Practice Book	Number, Ratio and Algebra Targeted Practice Book	Geometry, Measures and Statistics Targeted Practice Book	Mathematics Ten-Minute Tests
Tables				p. 29	p. 12 Set A Test 5 Q7 p. 28 Set A Test 11 Q3 p. 41 Set B Test 5 Q3 p. 42 Set B Test 5 Q4 p. 60 Set B Test 11 Q8
Time				p. 9	p. 7 Set A Test 4 Q3 p. 41 Set B Test 5 Q3 p. 53 Set B Test 9 Q5
Units of measurement	Converting units			p. 5	p. 3 Set A Test 2 Q3 p. 5 Set A Test 3 Q2 p. 7 Set A Test 4 Q3
Units of measurement	Ordering measures			p. 6	p. 32 Set B Test 1 Q2 p. 39 Set B Test 4 Q2
Units of measurement	Calculating with measures			p. 7	p. 3 Set A Test 2 Q3
Units of measurement	Imperial measures			p. 8	p. 5 Set A Test 3 Q2 p. 37 Set B Test 3 Q2 p. 60 Set B Test 11 Q8
Volume and capacity				p. 3, p. 15	p. 13 Set A Test 6 Q2 p. 43 Set B Test 6 Q2
Weight				p. 2	p. 3 Set A Test 2 Q3 p. 15 Set A Test 6 Q6 p. 60 Set B Test 11 Q8

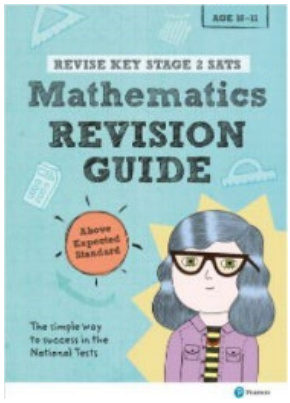
Other resources

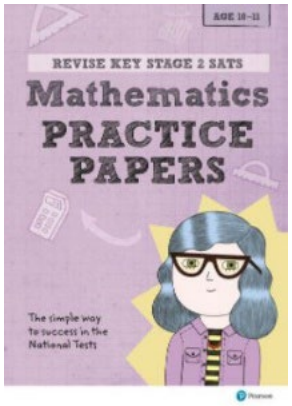
Additional revision resources are available to provide further support for students. Using a range of resources can help students catch up and recover.











For more information on recovery catch-up visit: pearsonschools.co.uk/recovery

