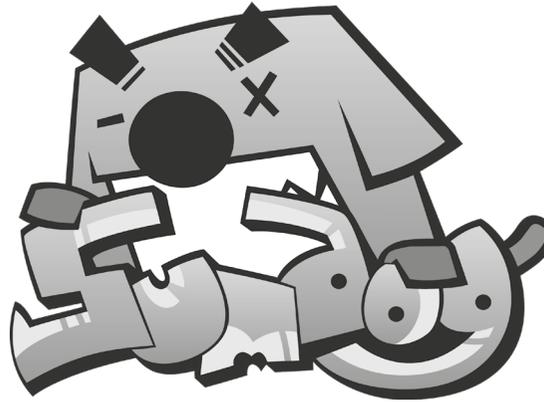


**FULLY ALIGNED TO THE
NEW V3.0 SCHEME!**



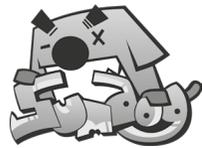
White Rose Maths on Sumdog

Scheme of Learning – Year 4



Contents

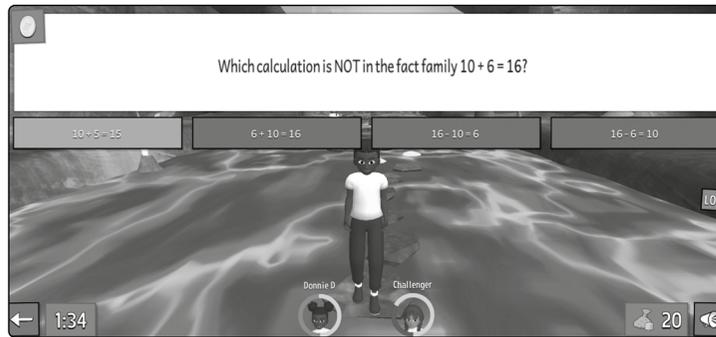
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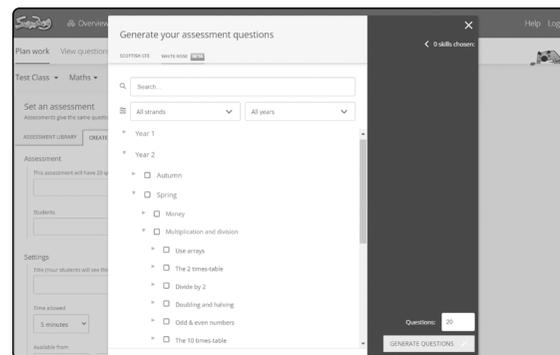
Introduction

Sumdog and White Rose Maths

Sumdog is an interactive maths and spelling platform for children aged between 5 and 14 years old that combines pupil engagement with quality question content and comprehensive curriculum alignment. Our huge bank of curriculum-aligned maths questions help children to build fluency through regular practice and teachers to diagnose, assess and identify areas for improvement. Questions can be answered in one of over 30 varied and exciting games or in a low-stakes test format, and answering questions earns children coins that can be used to upgrade their 3D avatars, houses and gardens.



Over the past year at Sumdog, we have developed, reviewed and released an entire curriculum of skills and question content aligned to the new White Rose Maths (WRM) Version 3.0 scheme, with the aim of helping you to set work on Sumdog that exactly matches your in-class teaching. These skills not only draw from our usual broad range of Sumdog questions, but also offer access to approximately 500 brand new question sets that have been designed specifically for WRM by teachers and educational consultants.



Our Scheme of Learning

This document has been created to help you set work on Sumdog to complement your use of WRM and to identify which of the WRM small steps are covered on Sumdog. To use this document, simply find the WRM small step that you are teaching, then check across for matching Sumdog skills to set work on. The WRM curriculum hierarchy is matched exactly by our skills chooser and wherever we have exactly matching skills, our skill name will match the WRM small step name.

For any small steps that we don't have directly aligned skills for (in **bold**), we've recommended suitable previous skills within the curriculum to provide opportunities for consolidation. In the final column, we've also highlighted the best times to use our ready-made WRM-aligned tests and Sumdog diagnostics, both to revise prior learning and identify areas for improvement when starting a new unit and to assess understanding at the end.

Term	Block	Small Step	Recommended Sumdog White Rose Maths Skill	Sumdog White Rose Maths Assessment Opportunity
Autumn	Addition and subtraction (within 10)	Number bonds to 10	Number bonds to 10	
		Addition - add together	Addition - add together	
		Addition - add more	Addition - add more	
		Addition problems	Addition problems	
		Find a part	Find a part	
		Subtraction - find a part	Subtraction - find a part	
		Fact families - the eight facts	Fact families - the eight facts	
		Subtraction - take away/cross out (How many left?)	Revision - Subtraction - find a part	
		Take away (How many left?)	Take away (How many left?)	
		Subtraction on a number line	Subtraction on a number line	
Add or subtract 1 or 2	Add or subtract 1 or 2	Year 1 - Addition and subtraction (within 10)		
Shape	Shape	Recognise and name 3-D shapes	Recognise and name 3-D shapes	
		Sort 3-D shapes	Sort 3-D shapes	
		Recognise and name 2-D shapes	Recognise and name 2-D shapes	Year 1 - End of term arithmetic (Autumn)
		Sort 2-D shapes	Sort 2-D shapes	Year 1 - Shape
		Patterns with 2-D and 3-D shapes	Patterns with 2-D and 3-D shapes	

Skills in bold indicate revision skills that have been suggested where a White Rose Maths small step has no directly equivalent skill on Sumdog.

White Rose Maths on Sumdog - Scheme of Learning

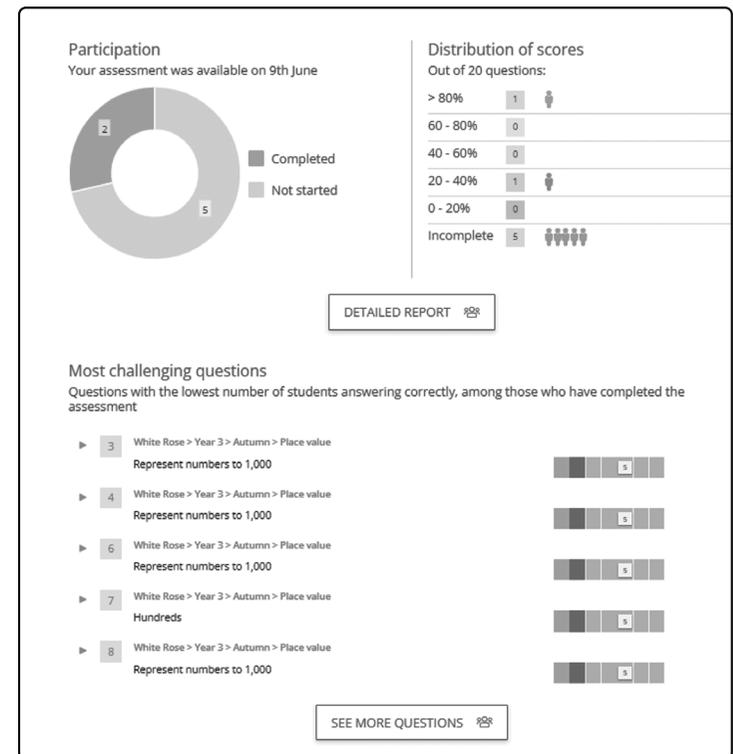
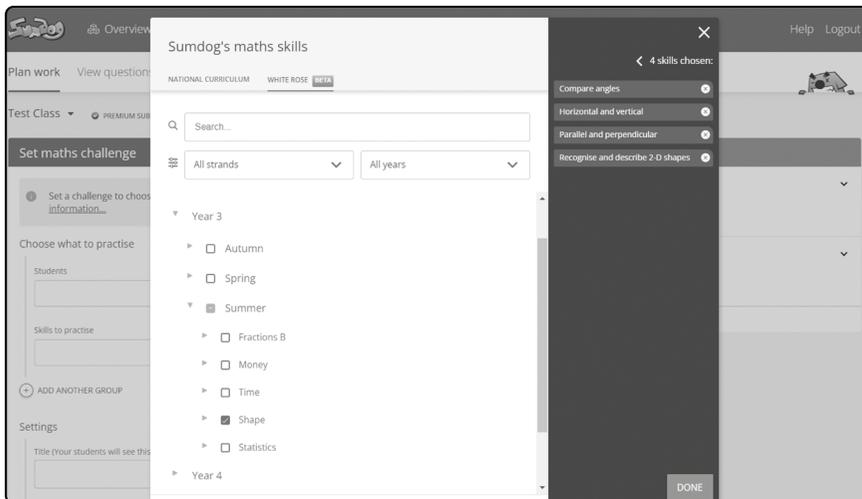


Use Case

Teacher A is a Year 3 teacher who is about to start teaching the 'Shape' block in the Summer term of Year 3. Using the Sumdog White Rose Maths scheme of learning document to set work on Sumdog to complement their teaching, they follow these simple steps:

1. As recommended by the document, they set the WRM-aligned test on Shape from the previous year, 'Year 2 - Shape', to prepare their pupils for upcoming learning.
2. Using Sumdog's enhanced assessment reporting, they then reveal any areas for improvement that need to be addressed before moving on to the more complex Year 3 content.
3. Once they have started teaching the first small step in the block, 'Turns and angles', they consolidate their in-class teaching by setting in-game practice on Sumdog question steps aligned to that exact small step, either in-class or as homework.

4. They then repeat step 3 for the first 3 small steps in the block - using White Rose Maths' teaching resources to introduce new learning, before using Sumdog challenges for practice and consolidation.
5. As the 4th small step in the block, 'Measure and draw accurately', is almost entirely practical in nature, there is no directly aligning skill on Sumdog. As recommended by this document however, Teacher A uses this time to set a Sumdog challenge covering the previous 3 small steps - providing a valuable opportunity for additional revision as in-class teaching moves swiftly on to the next small step.
6. Finally, at the end of the block, they use the corresponding Sumdog test, 'Year 3 - Shape', to assess learning across the block in a low-stakes, familiar environment. Once again, Sumdog's assessment report enables them to easily identify any remaining gaps in understanding so they can plan intervention as required.





Term	Block	Small Step	Recommended Sumdog White Rose Maths Skill	Sumdog White Rose Maths Assessment Opportunity
Autumn	Place value	Represent numbers to 1,000	Revision - Year 3 - Place value	Year 4 Sumdog Diagnostic
		Partition numbers to 1,000		Year 3 - Place value
		Number line to 1,000	Number line to 1,000	
		Thousands	Thousands	
		Represent numbers to 10,000	Represent numbers to 10,000	
		Partition numbers to 10,000	Partition numbers to 10,000	
		Flexible partitioning of numbers to 10,000	Revision - Partition numbers to 10,000	
		Find 1, 10, 100, 1,000 more or less	Find 1, 10, 100, 1,000 more or less	
		Number line to 10,000	Number line to 10,000	
		Estimate on a number line to 10,000	Estimate on a number line to 10,000	
		Compare numbers to 10,000	Compare numbers to 10,000	
		Order numbers to 10,000	Order numbers to 10,000	
		Roman numerals	Roman numerals	
		Round to the nearest 10	Round to the nearest 10	
		Round to the nearest 100	Round to the nearest 100	
		Round to the nearest 1,000	Round to the nearest 1,000	
	Round to the nearest 10, 100 or 1,000	Round to the nearest 10, 100 or 1,000	Year 4 - Place value	
	Addition and subtraction	Add and subtract 1s, 10s, 100s and 1000s	Add and subtract 1s, 10s, 100s and 1000s	
		Add two 4-digit numbers - no exchange	Add two 4-digit numbers - no exchange	
		Add two 4-digit numbers - one exchange	Add two 4-digit numbers - one exchange	

Skills in **bold** indicate revision skills that have been suggested where a White Rose Maths small step has no directly equivalent skill on Sumdog.



Term	Block	Small Step	Recommended Sumdog White Rose Maths Skill	Sumdog White Rose Maths Assessment Opportunity
Autumn	Addition and subtraction	Add two 4-digit numbers - more than one exchange	Add two 4-digit numbers - more than one exchange	
		Subtract two 4-digit numbers - no exchange	Subtract two 4-digit numbers - no exchange	
		Subtract two 4-digit numbers - one exchange	Subtract two 4-digit numbers - one exchange	
		Subtract two 4-digit numbers - more than one exchange	Subtract two 4-digit numbers - more than one exchange	
		Efficient subtraction	Efficient subtraction	
		Estimate answers	Estimate answers	
		Checking strategies	Checking strategies	
	Area	What is area?	What is area?	
		Counting squares	Counting squares	
		Making shapes	Making shapes	
		Comparing area	Comparing area	
	Multiplication and division A	Multiples of 3	Revision - Year 3 - The 3 times-table	Year 3 - Multiplication and division A
		Multiply and divide by 6	Multiply and divide by 6	
		6 times-table and division facts	6 times-table and division facts	
		Multiply and divide by 9	Multiply and divide by 9	
		9 times-table and division facts	9 times-table and division facts	
		The 3, 6 and 9 times-tables	Revision - 6-times table and division facts & 9-times table and division facts	

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Term	Block	Small Step	Recommended Sumdog White Rose Maths Skill	Sumdog White Rose Maths Assessment Opportunity
Autumn	Multiplication and division A	Multiply and divide by 7	Multiply and divide by 7	
		7 times-table and division facts	7 times-table and division facts	
		11 times-table and division facts	11 times-table and division facts	
		12 times-table and division facts	12 times-table and division facts	
		Multiply by 1 and 0	Multiply by 1 and 0	
		Divide by 1 and itself	Divide by 1 and itself	Year 4 - End of term arithmetic (Autumn)
		Multiply 3 numbers	Multiply 3 numbers	Year 4 - Multiplication and division A
Spring	Multiplication and division B	Factor pairs	Factor pairs	Year 4 Sumdog Diagnostic
		Use factor pairs	Revision - Factor pairs	Year 3 - Multiplication and division B
		Multiply by 10	Revision - Year 3 - Multiples of 5 and 10	
		Multiply by 100	Multiply by 100	
		Divide by 10	Divide by 10	
		Divide by 100	Divide by 100	
		Related facts - multiplication and division	Revision - Multiply by 100 & Divide by 100	
		Informal written methods for multiplication	Informal written methods for multiplication	
		Multiply a 2-digit number by a 1-digit number	Multiply a 2-digit number by a 1-digit number	

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Term	Block	Small Step	Recommended Sumdog White Rose Maths Skill	Sumdog White Rose Maths Assessment Opportunity
Spring	Multiplication and division B	Multiply a 3-digit number by a 1-digit number	Multiply a 3-digit number by a 1-digit number	
		Divide a 2-digit number by a 1-digit number (1)	Revision - Year 3 - Divide a 2-digit number by a 1-digit number - no exchange	
		Divide a 2-digit number by a 1-digit number (2)		
		Divide a 3-digit number by a 1-digit number	Divide a 3-digit number by a 1-digit number	
		Correspondence problems	Correspondence problems	
		Efficient multiplication	Efficient multiplication	
	Length and perimeter	Measure in kilometres and metres	Measure in kilometres and metres	Year 3 - Length and perimeter
		Equivalent lengths (kilometres and metres)	Equivalent lengths (kilometres and metres)	
		Perimeter on a grid	Perimeter on a grid	
		Perimeter of a rectangle	Perimeter of a rectangle	
		Perimeter of rectilinear shapes	Perimeter of rectilinear shapes	
		Find missing lengths in rectilinear shapes	Revision - Perimeter of rectilinear shapes	
		Calculate perimeter of rectilinear shapes	Calculate perimeter of rectilinear shapes	
		Perimeter of regular polygons	Revision - Calculate perimeter of rectilinear shapes	
Fractions	Understand the whole	Understand the whole	Year 3 - Fractions B	

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Term	Block	Small Step	Recommended Sumdog White Rose Maths Skill	Sumdog White Rose Maths Assessment Opportunity
Spring	Fractions	Count beyond 1	Count beyond 1	
		Partition a mixed number	Partition a mixed number	
		Number lines with mixed numbers	Number lines with mixed numbers	
		Compare and order mixed numbers	Compare and order mixed numbers	
		Understand improper fractions	Understand improper fractions	
		Convert mixed numbers to improper fractions	Convert mixed numbers to improper fractions	
		Convert improper fractions to mixed numbers	Convert improper fractions to mixed numbers	
		Equivalent fractions on a number line	Revision - Year 3 - Equivalent fractions on a number line	
		Equivalent fraction families	Equivalent fraction families	
		Add two or more fractions	Add two or more fractions	
		Add fractions and mixed numbers	Revision - Add two or more fractions	
		Subtract two fractions	Subtract two fractions	
		Subtract from whole amounts	Subtract from whole amounts	
	Subtract from mixed numbers	Revision - Subtract two fractions & Subtract from whole amounts	Year 4 - Fractions	
	Decimals A	Tenths as fractions	Tenths as fractions	
		Tenths as decimals	Tenths as decimals	
Tenths on a place value chart		Tenths on a place value chart		
Tenths on a number line		Tenths on a number line		

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Term	Block	Small Step	Recommended Sumdog White Rose Maths Skill	Sumdog White Rose Maths Assessment Opportunity	
Spring	Decimals A	Divide a 1-digit number by 10	Divide a 1-digit number by 10		
		Divide a 2-digit number by 10	Divide a 2-digit number by 10		
		Hundredths as fractions	Hundredths as fractions		
		Hundredths as decimals	Hundredths as decimals		
		Hundredths on a place value grid	Hundredths on a place value grid	Year 4 - End of term arithmetic (Spring)	
		Divide a 1- or 2-digit number by 100	Divide a 1- or 2-digit number by 100	Year 4 - Decimals A	
Summer	Decimals B	Make a whole with tenths	Make a whole with tenths	Year 4 Sumdog Diagnostic	
		Make a whole with hundredths	Make a whole with hundredths		
		Partition decimals	Partition decimals		
		Flexibly partition decimals	Revision - Partition decimals		
		Compare decimals	Compare decimals		
		Order decimals	Order decimals		
		Round decimals to the nearest whole number	Round decimals to the nearest whole number		
		Halves and quarters as decimals	Halves and quarters as decimals		Year 4 - Decimals B
	Money	Money	Write money using decimals	Write money using decimals	Year 3 - Money
			Convert between pounds and pence	Convert between pounds and pence	
			Compare amounts with money	Compare amounts with money	
			Estimate with money	Estimate with money	
			Calculate with money	Revision - Compare amounts with money & Estimate with money	

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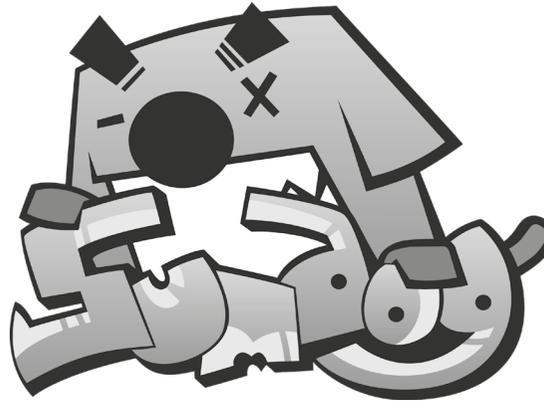
Term	Block	Small Step	Recommended Sumdog White Rose Maths Skill	Sumdog White Rose Maths Assessment Opportunity
Summer	Money	Solve problems with money		Year 4 - Money
	Time	Years, months, weeks and days	Years, months, weeks and days	Year 3 - Time
		Hours, minutes and seconds	Hours, minutes and seconds	
		Convert between analogue and digital times	Convert between analogue and digital times	
		Convert to the 24 hour clock	Convert to the 24 hour clock	
		Convert from the 24 hour clock	Convert from the 24 hour clock	Year 4 - Time
	Shape	Understand angles as turns	Revision - Year 3 - Shape	Year 3 - Shape
		Identify angles	Identify angles	
		Compare and order angles	Compare and order angles	
		Triangles	Triangles	
		Quadrilaterals	Quadrilaterals	
		Polygons	Polygons	
		Lines of symmetry	Lines of symmetry	
		Complete a symmetric figure	Complete a symmetric figure	Year 4 - Shape
	Statistics	Interpret charts	Interpret charts	Year 3 - Statistics
		Comparison, sum and difference	Comparison, sum and difference	
		Interpret line graphs	Interpret line graphs	
		Draw line graphs	Revision - Interpret line graphs	Year 4 - Statistics
	Position and direction	Describe position using coordinates	Describe position using coordinates	
		Plot coordinates	Plot coordinates	

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Term	Block	Small Step	Recommended Sumdog White Rose Maths Skill	Sumdog White Rose Maths Assessment Opportunity
Summer	Position and direction	Draw 2-D shapes on a grid	Revision - Describe position using coordinates	
		Translate on a grid	Translate on a grid	Year 4 - End of term arithmetic (Summer)
		Describe translation on a grid	Describe translation on a grid	Year 4 - Position and direction

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Interested in trying our new fully aligned White Rose Maths scheme?

☎ 0131 226 1511

✉ euan@sumdog.com

🖱 learn.sumdog.com

