

## White Rose Maths on Sumdog

 Scheme of Learning - Year 3
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## 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.


## 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.


## Year 3

| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Autumn | Place value | Represent numbers to 100 | Revision - Year 2 - Place Value | Year 3 Sumdog Diagnostic |
|  |  | Partition numbers to 100 |  | Year 2 - Place value |
|  |  | Number line to 1,000 |  |  |
|  |  | Hundreds | Hundreds |  |
|  |  | Represent numbers to 1,000 | Represent numbers to 1,000 |  |
|  |  | Partition numbers to 1,000 | Partition numbers to 1,000 |  |
|  |  | Flexible partitioning of numbers to 1,000 | Flexible partitioning of numbers to 1,000 |  |
|  |  | Hundreds, tens and ones | Hundreds, tens and ones |  |
|  |  | Find 1, 10, 100 more or less | Find 1, 10, 100 more or less |  |
|  |  | Number line to 1,000 | Number line to 1,000 |  |
|  |  | Estimating on a number line to 1,000 | Revision - Number line to 1,000 |  |
|  |  | Compare numbers to 1,000 | Compare numbers to 1,000 |  |
|  |  | Order numbers to 1,000 | Order numbers to 1,000 |  |
|  |  | Count in 50s | Count in 50s | Year 3 - Place value |
|  |  | Apply number bonds within 10 | Revision - Year 2 - Addition and subtraction | Year 2 - Addition and subtraction |
|  |  | Add and subtract 1s | Add and subtract 1s |  |
|  | Addition and subtraction | Add and subtract 10s | Add and subtract 10s |  |
|  |  | Add and subtract 100s | Add and subtract 100s |  |
|  |  | Spot the pattern | Revision - Add and subtract 1s, Add and subtract 10s \& Add and subtract 100s |  |

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 1s across a 10 | Add 1s across a 10 |  |
|  |  | Add 10s across a 100 | Add 10s across a 100 |  |
|  |  | Subtract 1s across a 10 | Subtract 1s across a 10 |  |
|  |  | Subtract 10s across a 100 | Subtract 10s across a 100 |  |
|  |  | Make connections | Make connections |  |
|  |  | Add two numbers (no exchange) | Add two numbers (no exchange) |  |
|  |  | Subtract two numbers (no exchange) | Subtract two numbers (no exchange) |  |
|  |  | Add two numbers (across a 10) | Add two numbers (across a 10) |  |
|  |  | Add two numbers (across a 100) | Add two numbers (across a 100) |  |
|  |  | Subtract two numbers (across a 10) | Subtract two numbers (across a 10) |  |
|  |  | Subtract two numbers (across a 100) | Subtract two numbers (across a 100) |  |
|  |  | Add 2-digit and 3-digit numbers | Add 2-digit and 3-digit numbers |  |
|  |  | Subtract a 2-digit number from a 3-digit number | Subtract a 2-digit number from a 3-digit number |  |
|  |  | Complements to 100 | Complements to 100 |  |
|  |  | Estimate answers | Estimate answers |  |
|  |  | Inverse operations | Revision - Add 2-digit and 3-digit numbers |  |
|  |  | Make decisions | Revision - Subtract a 2-digit number from a 3-digit number | Year 3 - Addition and subtraction |
|  | Multiplication and division A | Multiplication - equal groups | Revision - Year 2 - Multiplication and Division | Year 2 - Multiplication and division |

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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 | Use arrays | Use arrays |  |
|  |  | Multiples of 2 | Revision Year 2 - The 2-times table |  |
|  |  | Multiples of 5 and 10 | Multiples of 5 and 10 |  |
|  |  | Sharing and grouping | Sharing and grouping |  |
|  |  | Multiply by 3 | Multiply by 3 |  |
|  |  | Divide by 3 | Divide by 3 |  |
|  |  | The 3 times-table | The 3 times-table |  |
|  |  | Multiply by 4 | Multiply by 4 |  |
|  |  | Divide by 4 | Divide by 4 |  |
|  |  | The 4 times-table | The 4 times-table |  |
|  |  | Multiply by 8 | Multiply by 8 |  |
|  |  | Divide by 8 | Divide by 8 |  |
|  |  | The 8 times-table | The 8 times-table | Year 2 - End of term arithmetic (Autumn) |
|  |  | The 2, 4 and 8 times tables | The 2, 4 and 8 times tables | Year 3 - Multiplication and division A |
| Spring | Multiplication and division B | Multiples of 10 | Revision - Multiples of 5 and 10 | Year 3 Sumdog Diagnostic |
|  |  | Related calculations | Related calculations |  |
|  |  | Multiply a 2-digit number by a 1-digit number - no exchange | Multiply a 2-digit number by a 1-digit number - no exchange |  |
|  |  | Multiply a 2-digit number by a 1-digit number - with exchange | Multiply a 2-digit number by a 1-digit number - with exchange |  |

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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 | Comparing statements | Comparing statements |  |
|  |  | Divide a 2-digit number by a 1-digit number - no exchange | Divide a 2-digit number by a 1-digit number - no exchange |  |
|  |  | Divide a 2-digit number by a 1-digit number - flexible partitioning | Revision - Divide a 2-digit number by a 1-digit number - no exchange |  |
|  |  | Divide a 2-digit number by a 1-digit number - with remainders |  |  |
|  |  | Scaling | Scaling |  |
|  |  | How many ways? | Revision - Scaling | Year 3 - Multiplication and division B |
|  | Length and perimeter | Measure in metres and centimetres | Revision - Year 2 - Length and height | Year 2 - Length and height |
|  |  | Measure in millimetres |  |  |
|  |  | Measure in centimetres and millimetres |  |  |
|  |  | Metres, centimetres and millimetres |  |  |
|  |  | Equivalent lengths (metres and centimetres) | Equivalent lengths (metres and centimetres) |  |
|  |  | Equivalent lengths (centimetres and millimetres) | Equivalent lengths (centimetres and millimetres) |  |
|  |  | Compare lengths | Compare lengths |  |
|  |  | Add lengths | Add lengths |  |
|  |  | Subtract lengths | Subtract lengths |  |
|  |  | What is perimeter? | Revision - Add lengths |  |
|  |  | Measure perimeter | Measure perimeter |  |

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| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Spring | Length and perimeter | Calculate perimeter | Calculate perimeter | Year 3 - Length and perimeter |
|  | Fractions A | Understand the denominators of unit fractions | Understand the denominators of unit fractions | Year 2 - Fractions |
|  |  | Compare and order unit fractions | Compare and order unit fractions |  |
|  |  | Understand the numerators of non-unit fractions | Understand the numerators of non-unit fractions |  |
|  |  | Understand the whole | Understand the whole |  |
|  |  | Compare and order non-unit fractions | Compare and order non-unit fractions |  |
|  |  | Fractions and scales | Revision - Compare and order non-unit fractions |  |
|  |  | Fractions on a number line | Fractions on a number line |  |
|  |  | Count in fractions on a number line | Count in fractions on a number line |  |
|  |  | Equivalent fractions on a number line | Equivalent fractions on a number line |  |
|  |  | Equivalent fractions as bar models | Equivalent fractions as bar models | Year 3 - Fractions A |
|  | Mass and capacity | Use scales | Revision - Year 1 - Mass, capacity and temperature | Year 2 - Mass, capacity and temperature |
|  |  | Measure mass in grams | Measure mass in grams |  |
|  |  | Measure mass in kilograms and grams | Measure mass in kilograms and grams |  |
|  |  | Equivalent masses (kilograms and grams) | Revision - Measure mass in kilograms and grams |  |
|  |  | Compare mass | Compare mass |  |
|  |  | Add and subtract mass | Add and subtract mass |  |

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| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Spring | Mass and capacity | Measure capacity and volume in millilitres | Measure capacity and volume in millilitres |  |
|  |  | Measure capacity and volume in litres and millilitres | Measure capacity and volume in litres and millilitres |  |
|  |  | Equivalent capacities and volumes (litres and millilitres) | Equivalent capacities and volumes (litres and millilitres) |  |
|  |  | Compare capacity and volume | Compare capacity and volume | Year 3 - End of term arithmetic (Spring) |
|  |  | Add and subtract capacity and volume | Add and subtract capacity and volume | Year 3 - Mass and capacity |
| Summer | Fractions B | Add fractions | Add fractions | Year 3 Sumdog Diagnostic |
|  |  | Subtract fractions | Subtract fractions | Year 3 - Fractions A |
|  |  | Partition the whole | Revision - Add fractions \& Subtract fractions |  |
|  |  | Unit fractions of a set of objects | Unit fractions of a set of objects |  |
|  |  | Non-unit fractions of a set of objects | Non-unit fractions of a set of objects |  |
|  |  | Reasoning with fractions of an amount | Reasoning with fractions of an amount | Year 3 - Fractions B |
|  | Money | Pounds and pence | Pounds and pence | Year 2 - Money |
|  |  | Convert pounds and pence | Convert pounds and pence |  |
|  |  | Add money | Add money |  |
|  |  | Subtract money | Subtract money |  |
|  |  | Find change | Find change | Year 3 - Money |
|  | Time | Roman numerals to 12 | Roman numerals to 12 | Year 2 - Time |
|  |  | Tell the time to 5 minutes | Tell the time to 5 minutes |  |

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| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Summer | Time | Tell the time to the minute | Tell the time to the minute |  |
|  |  | Read time on a digital clock | Read time on a digital clock |  |
|  |  | Use a.m. and p.m. | Revision - Read time on a digital clock |  |
|  |  | Years, months and days | Years, months and days |  |
|  |  | Days and hours | Revision - Years, months and days |  |
|  |  | Hours and minutes - use start and end times | Hours and minutes - use start and end times |  |
|  |  | Hours and minutes - use durations | Hours and minutes - use durations |  |
|  |  | Minutes and seconds | Minutes and seconds |  |
|  |  | Units of time | Units of time |  |
|  |  | Solve problems with time | Solve problems with time | Year 3 - Time |
|  | Shape | Turns and angles | Turns and angles | Year 2 - Shape |
|  |  | Right angles | Right angles |  |
|  |  | Compare angles | Compare angles |  |
|  |  | Measure and draw accurately | Revision - Turns and angles, Right angles, Compare angles |  |
|  |  | Horizontal and vertical | Horizontal and vertical |  |
|  |  | Parallel and perpendicular | Parallel and perpendicular |  |
|  |  | Recognise and describe 2-D shapes | Recognise and describe 2-D shapes |  |
|  |  | Draw polygons | Revision - Recognise and describe 2-D shapes |  |
|  |  | Recognise and describe 3-D shapes | Recognise and describe 3-D shapes |  |

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| :---: | :---: | :---: | :---: | :---: |
| Summer | Shape | Make 3-D shapes | Revision - Recognise and describe 3-D shapes | Year 3 - Shape |
|  | Statistics | Interpret pictograms | Interpret pictograms | Year 2 - Statistics |
|  |  | Draw pictograms | Revision - Interpret pictograms |  |
|  |  | Interpret bar charts | Interpret bar charts |  |
|  |  | Draw bar charts | Revision - Interpret bar charts |  |
|  |  | Collect and represent data | Collect and represent data | Year 3 - End of term arithmetic (Summer) |
|  |  | Two-way tables | Two-way tables | Year 3 - Statistics |



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