

# White Rose Maths on Sumdog 

Scheme of Learning - Year 2

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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.


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 2

| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Autumn | Place Value | Numbers to 20 | Revision - Year 1 - Place Value (within 20) | Year 2 Sumdog Diagnostic |
|  |  | Count objects to 100 by making 10 s | Count objects to 100 by making 10s | Year 1: Summer - Place value (within 100) |
|  |  | Recognise tens and ones | Recognise tens and ones |  |
|  |  | Use a place value chart | Revision - Recognise tens and ones |  |
|  |  | Partition numbers to 100 | Partition numbers to 100 |  |
|  |  | Write numbers to 100 in words | Write numbers to 100 in words |  |
|  |  | Flexibly partition numbers to 100 | Flexibly partition numbers to 100 |  |
|  |  | Write numbers to 100 in expanded form | Write numbers to 100 in expanded form |  |
|  |  | 10s on the number line to 100 | Revision - Year 1 - Place Value (within 20) |  |
|  |  | 10 s and 1 s on the number line to 100 | 10 s and 1 s on the number line to 100 |  |
|  |  | Estimate numbers on a number line | Revision-10s and 1s on a number line |  |
|  |  | Compare objects | Compare objects |  |
|  |  | Compare numbers | Compare numbers |  |
|  |  | Order objects and numbers | Order objects and numbers |  |
|  |  | Count in $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s | Count in $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s |  |
|  |  | Count in 3 s | Count in 3 s | Year 2 - Place value |
|  | Addition and subtraction | Bonds to 10 | Revision - Year 1 - Addition and subtraction (within 20) | Year 1 - Addition and subtraction (within 20) |
|  |  | Fact families - addition and subtraction bonds within 20 | Fact families - addition and subtraction bonds within 20 |  |
|  |  | Related facts | Related facts |  |


| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Autumn | Addition and subtraction | Bonds to 100 (tens) | Bonds to 100 (tens) |  |
|  |  | Add and subtract 1s | Add and subtract 1s |  |
|  |  | Add by making 10 | Add by making 10 |  |
|  |  | Add three 1-digit numbers | Add three 1-digit numbers |  |
|  |  | Add to the next 10 | Revision - Add by making 10 |  |
|  |  | Add across a 10 | Add across a 10 |  |
|  |  | Subtract across 10 | Subtract across 10 |  |
|  |  | Subtract from a 10 | Subtract from a 10 |  |
|  |  | Subtract a 1-digit number from a 2-digit number (across a 10) | Subtract a 1-digit number from a 2-digit number (across a 10) |  |
|  |  | 10 more and 10 less | 10 more and 10 less |  |
|  |  | Add and subtract 10s - addition | Add and subtract 10s - addition |  |
|  |  | Add and subtract 10s - subtraction | Add and subtract 10s - subtraction |  |
|  |  | Add two 2-digit numbers (not across a 10) | Add two 2-digit numbers (not across a 10) |  |
|  |  | Add two 2-digit numbers (across a 10) | Add two 2-digit numbers (across a 10) |  |
|  |  | Subtract two 2-digit numbers (not across a 10) | Subtract two 2-digit numbers (not across a 10) |  |
|  |  | Subtract two 2-digit numbers (across a 10) | Subtract two 2-digit numbers (across a 10) |  |
|  |  | Mixed addition and subtraction | Revision - Subtract two 2-digit numbers (across a 10) \& Add two 2-digit numbers (across a 10) |  |


| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Autumn | Addition and subtraction | Compare number sentences | Compare number sentences |  |
|  |  | Missing number problems | Missing number problems | Year 2 - Addition and subtraction |
|  | Shape | Recognise 2-D and 3-D shapes | Recognise 2-D and 3-D shapes | Year 1-Shape |
|  |  | Count sides on 2-D shapes | Count sides on 2-D shapes |  |
|  |  | Count vertices on 2-D shapes | Count vertices on 2-D shapes |  |
|  |  | Draw 2-D shapes | Revision - Recognise 2-D and 3-D shapes |  |
|  |  | Lines of symmetry on shapes | Lines of symmetry on shapes |  |
|  |  | Use lines of symmetry to complete shapes | Revision - Lines of symmetry on shapes |  |
|  |  | Sort 2-D shapes | Sort 2-D shapes |  |
|  |  | Count faces on 3-D shapes | Count faces on 3-D shapes |  |
|  |  | Count edges on 3-D shapes | Count edges on 3-D shapes |  |
|  |  | Count vertices on 3-D shapes | Count vertices on 3-D shapes |  |
|  |  | Sort 3-D shapes | Sort 3-D shapes | Year 2 - End of term arithmetic (Autumn) |
|  |  | Make patterns with 2-D and 3-D shapes | Make patterns with 2-D and 3-D shapes | Year 2 - Shape |
| Spring | Money | Count money - pence | Count money - pence | Year 2 Sumdog Diagnostic |
|  |  | Count money - pounds (notes and coins) | Count money - pounds (notes and coins) | Year 1 - Money |
|  |  | Count money - pounds and pence | Count money - pounds and pence |  |
|  |  | Choose notes and coins | Choose notes and coins |  |
|  |  | Make the same amount | Make the same amount |  |


| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Spring | Money | Compare amounts of money | Compare amounts of money |  |
|  |  | Calculate with money | Calculate with money |  |
|  |  | Make a pound | Revision - Calculate with money |  |
|  |  | Find change | Find change |  |
|  |  | Two-step problems | Two-step problems | Year 2 - Money |
|  | Multiplication and division | Recognise equal groups | Recognise equal groups | Year 1 - Multiplication and division |
|  |  | Make equal groups | Make equal groups |  |
|  |  | Add equal groups | Add equal groups |  |
|  |  | Introduce the multiplication symbol | Introduce the multiplication symbol |  |
|  |  | Multiplication sentences | Multiplication sentences |  |
|  |  | Use arrays | Use arrays |  |
|  |  | Make equal groups - sharing | Revision - Use arrays |  |
|  |  | Make equal groups - grouping |  |  |
|  |  | The 2 times-table | The 2 times-table |  |
|  |  | Divide by 2 | Divide by 2 |  |
|  |  | Doubling and halving | Doubling and halving |  |
|  |  | Odd \& even numbers | Odd \& even numbers |  |
|  |  | The 10 times-table | The 10 times-table |  |
|  |  | Divide by 10 | Divide by 10 |  |
|  |  | The 5 times-table | The 5 times-table |  |
|  |  | Divide by 5 | Divide by 5 |  |

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 |
| :---: | :---: | :---: | :---: | :---: |
| Spring | Multiplication and division | The 5 and 10 times-tables | Revision - The 5 times-table and The 10 times-table | Year 2 - Multiplication and division |
|  | Length and height | Measure in centimetres | Measure in centimetres | Year 1 - Length and height |
|  |  | Measure in metres | Measure in metres |  |
|  |  | Compare lengths and heights | Compare lengths and heights |  |
|  |  | Order lengths and heights | Order lengths and heights |  |
|  |  | Four operations with lengths and heights | Four operations with lengths and heights | Year 2 - Length and height |
|  | Mass, capacity and temperature | Compare mass | Compare mass | Year 1 - Mass and volume |
|  |  | Measure in grams | Measure in grams |  |
|  |  | Measure in kilograms | Measure in kilograms |  |
|  |  | Four operations with mass | Revision - Compare mass |  |
|  |  | Compare volume and capacity | Compare volume and capacity |  |
|  |  | Measure in millilitres | Measure in millilitres |  |
|  |  | Measure in litres | Measure in litres |  |
|  |  | Four operations with volume and capacity | Revision - Compare volume and capacity | Year 2 - End of term arithmetic (Spring) |
|  |  | Temperature | Temperature | Year 2 - Mass, capacity and temperature |
| Summer | Fractions | Introduction parts and wholes | Revision - Year 1 - Fractions | Year 2 Sumdog Diagnostic |
|  |  | Equal and unequal parts | Equal and unequal parts | Year 1 - Fractions |
|  |  | Recognise a half | Recognise a half |  |
|  |  | Find a half | Find a half |  |

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| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Summer | Fractions | Recognise a quarter | Recognise a quarter |  |
|  |  | Find a quarter | Find a quarter |  |
|  |  | Recognise a third | Recognise a third |  |
|  |  | Find a third | Find a third |  |
|  |  | Find the whole | Revision - Find a half, Find a quarter \& Find a third |  |
|  |  | Unit fractions | Unit fractions |  |
|  |  | Non-unit fractions | Revision - Unit fractions |  |
|  |  | Recognise the equivalence of a half and two quarters |  |  |
|  |  | Recognise three quarters |  |  |
|  |  | Find three quarters | Find three quarters |  |
|  |  | Count in fractions up to a whole | Revision - Find three quarters | Year 2 - Fractions |
|  | Time | O'clock and half past | O'clock and half past | Year 1-Time |
|  |  | Quarter past and quarter to | Quarter past and quarter to |  |
|  |  | Tell time past the hour | Revision - O'clock and half past \& Quarter past and quarter to |  |
|  |  | Tell time to the hour |  |  |
|  |  | Tell the time to 5 minutes | Tell the time to 5 minutes |  |
|  |  | Minutes in an hour | Minutes in an hour |  |
|  |  | Hours in a day | Revision - Tell the time to 5 minutes | Year 2 - Time |
|  | Statistics | Make tally charts | Make tally charts |  |

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| Term | Block | Small Step | Recommended Sumdog White Rose Maths Skill | Sumdog White Rose Maths Assessment Opportunity |
| :---: | :---: | :---: | :---: | :---: |
| Summer | Statistics | Tables | Tables |  |
|  |  | Block diagrams | Block diagrams |  |
|  |  | Draw pictograms (1-1) | Revision - Make tally charts |  |
|  |  | Interpret pictograms (1-1) | Interpret pictograms (1-1) |  |
|  |  | Draw pictograms (2,5 and 10) | Revision - Interpret pictograms (1-1) |  |
|  |  | Interpret pictograms (2,5 and 10) | Interpret pictograms (2, 5 and 10) | Year 2 - Statistics |
|  | Position and direction | Language of position | Revision - Year 1 - Position and Direction |  |
|  |  | Describe movement |  |  |
|  |  | Describe turns |  |  |
|  |  | Describe movement and turns |  | Year 2 - End of term arithmetic (Summer) |
|  |  | Shape patterns with turns | Shape patterns with turns | Year 2 - Position and direction |



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