# Progression Document - National curriculum and 'Ready to Progress' mapping (EYFS – See NSM section)

Table 1 - National Curriculum Objectives          Table 2 - Ready To Progress Criteria          Table 3 - Small Steps

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---|---|---|---|---|---|---|
| **National Curriculum Objectives** | read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs | solve problems with addition and subtraction:<br>- using concrete objects and pictorial representations, including those involving numbers, quantities and measures<br>- applying their increasing knowledge of mental and written methods | add and subtract numbers mentally, including:<br>- a three-digit number and 1s<br>- a three-digit number and 10s<br>- a three-digit number and 100s | add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate | add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) | solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why |
| | represent and use number bonds and related subtraction facts within 20 | recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 | add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction | estimate and use inverse operations to check answers to a calculation | add and subtract numbers mentally with increasingly large numbers | perform mental calculations, including with mixed operations and large numbers |
| | add and subtract one-digit and two-digit numbers to 20, including 0 | add and subtract numbers using concrete objects, pictorial representations, and mentally, including:<br>- a two-digit number and 1s<br>- a two-digit number and 10s<br>- 2 two-digit numbers<br>- adding 3 one-digit numbers | estimate the answer to a calculation and use inverse operations to check answers | solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why | use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy | use their knowledge of the order of operations to carry out calculations involving the 4 operations |
| | solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? − 9 | show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot | solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | | solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why | solve problems involving addition and subtraction |
| | | recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems | | | | use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy |

# Ready to Progress Criteria | Block | Steps

## Year 1

| Ready to Progress Criteria | Block | Steps |
|---|---|---|
| 1NF-1 Develop fluency in addition and subtraction facts within 10 | Aut 2 | - Number bonds within 10<br>- Systematic number bonds within 10<br>- Number bonds to 10 |
| | Spr 2 | - Add ones using number bonds<br>- Subtract ones using number bonds |
| 1NF-2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers. | | See under Multiplication & Division |
| 1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. | Aut 2 | - Number bonds within 10<br>- Systematic number bonds within 10<br>- Number bonds to 10 |
| 1AS-2 Read, write and interpret equations containing addition (+), subtraction (−) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. | Aut 2 | - Fact Families – addition facts<br>- Addition – add together<br>- Addition – add more<br>- Addition problems<br>- Find a part<br>- Subtraction – find a part<br>- Fact families – the eight facts<br>- Subtraction (take away/cross out)<br>- Subtraction – take away (how many left?)<br>- Subtraction on a number line |
| | Spr 2 | - Add by counting on within 20<br>- Subtract ones using number bonds<br>- Subtraction – Counting back<br>- Subtraction – finding the difference<br>- Missing number problems |

## Year 2

| Ready to Progress Criteria | Block | Steps |
|---|---|---|
| 2NF-1 Secure fluency in addition and subtraction facts within 10, through continued practice. | Aut 2 | - Bonds to 10<br>- Add by making 10<br>- Add to the next 10<br>- Subtract from a 10 |
| 2AS-1 Add and subtract across 10 | Aut 2 | - Add across a 10<br>- Subtract across a 10<br>- Subtract from a 10<br>- Subtract 1-digit number from a 2 digit number (across a 10) |
| 2AS-2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?". | Spr 1 | - Find change |
| 2AS-3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two digit number. | Aut 2 | - Add across a 10<br>- Subtract across a 10<br>- Subtract from a 10<br>- Subtract 1-digit number from a 2-digit number (across a 10)<br>- 10 more, 10 less<br>- Add and subtract |
| 2AS-4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers. | Aut 2 | - Add two 2-digit numbers (not across a 10)<br>- Add two 2-digit numbers (across a 10)<br>- Subtract two 2-digit numbers (not across a 10)<br>- Subtract two 2-digit numbers (across a 10)<br>- Mixed addition and subtraction |
| | Spr 1 | - Make a pound<br>- Find change |
| | Spr 3 | - Four operations with lengths and heights |

## Year 3

| Ready to Progress Criteria | Block | Steps |
|---|---|---|
| 3NF-1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. | Aut 2 | - Add 1s across a 10<br>- Add 10s across a 100<br>- Subtract 1s across a 10<br>- Subtract 1s across 100<br>- Add two numbers (across a 10)<br>- Add two numbers (across a 100)<br>- Subtract two numbers (across a 10)<br>- Subtract two numbers (across a 100) |
| 3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. | | See under Multiplication & Division |
| 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). | | See under Multiplication & Division |
| 3AS-1 Calculate complements to 100 | Aut 1 | – Complements to 100 |
| | Sum 2 | - Subtract money<br>- Find change |
| 3AS-2 Add and subtract up to three-digit numbers using columnar methods. | Aut 2 | - Add two numbers (no exchange)<br>  Subtract two numbers (no exchange)<br>- Add two numbers (across a 10)<br>- Add two numbers (across a 100)<br>- Subtract two numbers (across a 10)<br>- Subtract two numbers (across a 100)<br>- Add 2-digit and 3-digit numbers<br>- Subtract a 2-digit number from a 3-digit number |
| 3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction. | Aut 2 | – Inverse operations<br>– Make decisions |
| | Sum 2 | – Add money<br>– Subtract money<br>– Find change |

## Year 6

| Ready to Progress Criteria | Block | Steps |
|---|---|---|
| 6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). | Spr 1 | - Add or multiply?<br>- Scale drawing<br>- Use scale factors<br>- Similar shapes<br>- Ratio problems<br>- Proportion problems<br>- Recipes |
| 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. | Aut 2 | - Solve problems with multiplication<br>- Division using factors<br>- Solve problems with division<br>- Solve multi-step problems<br>- Reason from known facts |
| 6AS/MD-3 Solve problems involving ratio relationships. | | See under Ratio and Proportion |
| 6AS/MD-4 Solve problems with 2 unknowns. | | See under Algebra |

# White Rose Maths National Curriculum Smaller Steps linked to Ready to Progress Criteria

|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---|---|---|---|---|---|---|
| Calculations | **Aut 2, Spr 2**<br>• add and subtract<br>• one-digit and two digit numbers to 20,<br>• including zero | **Aut 2**<br>• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:<br>  ➤ a two-digit number and ones<br>  ➤ a two-digit number and tens<br>  ➤ two two-digit numbers<br>  ➤ adding three one digit numbers | **Aut 2**<br>• add and subtract<br>• numbers mentally,<br>• including:<br>  ➤ a three-digit number and ones<br>  ➤ a three-digit number and tens<br>  ➤ a three-digit number and hundreds<br>• add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction | **Aut 2**<br>• add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate | **Aut 2**<br>• add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)<br>• add and subtract numbers mentally with increasingly large numbers | **Aut 2**<br>• perform mental calculations, including with mixed operations and large numbers<br>• use their knowledge of the order of operations to carry out calculations involving the four operations |
| Problems | **Aut 2 & Spr 2**<br>• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9 | **Aut 2**<br>• solve problems with addition and subtraction:<br>  ➤ using concrete objects and pictorial representations, including those involving numbers, quantities and measures<br>  ➤ applying their increasing knowledge of mental and written methods | **Aut 2**<br>• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | **Aut 2**<br>• solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why | **Aut 2**<br>• solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why<br>• solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign | **Aut 2**<br>• solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why |