College Road Primary School and White Rose Maths Progression in Addition and Subtraction

College Road
Primary School

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition and Subtraction Calculations	Add and subtract one-digit and two-digit numbers to 20, including zero	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ➢ a two-digit number and ones ➢ a two-digit number and tens ➢ two two-digit numbers ➢ adding three one-digit numbers	Add and subtract numbers mentally, including: ➢ a three-digit number and ones ➢ a three-digit number and tens ➢ a three-digit number and hundreds • add and subtract numbers with up to three digits, using formal written methods of columnar addition and	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 (column addition and subtraction) Add and subtract numbers mentally with increasingly large numbers	Perform mental calculations, including with mixed operations and large numbers Use their knowledge of the order of operations to carry out calculations involving the four operations

Addition and Subtraction: Problem Solving	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9	Solve problems with addition and subtraction: ➢ using concrete objects and pictorial representations, including those involving numbers, quantities and measures ➢ applying their increasing knowledge of mental and written methods	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why	Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why

Autumn	Block 2 Week 6 - 10	Block 2 Week 6 - 10	Block 2 Week 4 - 8	Block 2 Week 5 - 7	Block 2 Week 4 - 5	Block 2 Week 3 - 7
Spring	Block 2 Week 4 - 6					

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Small Steps Autumn	1. Introduce parts and wholes 2. Part-whole model Write number sentences 3. Fact families - addition facts 4. Number bonds within 10 5. Systematic number bonds within 10 6. Number bonds to 10 7. Addition - add together 8. Addition - add more 9. Addition problems 10. Find a part	1. Bonds to 10 2. Fact families – addition and subtraction bonds within 20 3. Related facts 4. Bonds to 100 (tens) 5. Add and subtract 1s 6. Add by making 10 7. Add three 1-digit numbers 8. Add to the next 10 9. Add across a 10 10. Subtract across 10 11. Subtract from a 10	1. Apply number bonds within 10 2. Add and subtract 1s 3. Add and subtract 10s 4. Add and subtract 100s 5. Spot the pattern 6. Add 1s across a 10 7. Add 10s across a 100 8. Subtract 1s across a 10 9. Subtract 10s across a 100 10. Make connections	1. Add and subtract 1s, 10s, 100s and 1,000s 2. Add up to two 4-digit numbers - no exchange 3. Add two 4-digit numbers - one exchange 4. Add two 4-digit numbers– more than one exchange 5. Subtract two 4-digit numbers - no exchange 6. Subtract two 4-digit numbers - one exchange	1. Mental strategies 2. Add whole numbers with more than four digits 3. Subtract whole numbers with more than four digits 4. Round to check answers 5. Inverse operations (addition and subtraction) 6. Multi-step addition and subtraction problems 7. Compare calculations 8. Find missing numbers	1. Add and subtract integers 2. Solve multi-step problems 3. Order of operations 4. Mental calculations and estimation 5. Reason from known facts

	11. Subtraction - find a part 12. Fact families - the eight facts 13. Subtraction - take away/crossing out (How many left?) 14. Subtraction - take away (How many left?) 15.Subtraction on a number line 16. Add or subtract 1 or 2	12. Subtract a 1-digit number from a 2-digit number (across a 10) 13. 10 more, 10 less 14. Add and subtract 10s 15. Add two 2-digit numbers (not across a 10) 16. Add two 2-digit numbers (across a 10) 17. Subtract two 2-digit numbers (not across a 10) 18. Subtract two 2-digit numbers (across a 10) 19. Mixed addition and subtraction 20. Compare number sentences 21 Missing number problems	11. Add two numbers (no exchange) 12. Subtract two numbers (no exchange) 13. Add two numbers (across a 10) 14. Add two numbers (across a 100) 15. Subtract two numbers (across a 10) 16. Subtract two numbers (across a 100) 17. Add 2-digit and 3-digit numbers 18. Subtract a 2-digit number from a 3-digit number 19. Complements to 100 20. Estimate answers 21. Inverse operations 22. Make decisions	7. Subtract two 4-digit numbers – more than one exchange 8. Efficient subtraction 9. Estimate answers 10. Checking strategies		

Small Steps Spring	1. Add by counting on within 20 2. Add ones using number bonds 3. Find and make number bonds to 20 4. Doubles 5.Near doubles 6. Subtract ones using number bonds 7. Subtraction – counting back 8. Subtraction – finding the difference 9. Related facts 10. Missing number problems					