Meath Green Junior School- Whole School Progression- Addition and Subtraction

Our Intent:				
Maths at Meath Green Junior School is a subject that sparks curiosity, provides challenge and results in enjoyment through the children's processes and successes. We aim for the stigma of maths to be eradicated and replaced with children who are brave and resilient within their approaches to mathematical concepts, representations and problems. Our approaches ensure that children are actively involved in their learning and are passionate about their knowledge and achievements.				
Developing knowledge	Year 3	Year 4	Year 5	Year 6
Addition and Subtraction				
Number Bonds				
represent and use number bonds and related subtraction facts within 20 (year 1) memorise and reason with number bonds of all numbers up to 10 recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100				
Mental Calculations				
Add and subtract numbers mentally within 20	add and subtract numbers mentally, including:		add and subtract numbers mentally with increasingly large numbers	perform mental calculations, including with mixed operations and large numbers

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	1. a three-digit number and ones 2. a three-digit number and tens 3. a three-digit number and hundreds			
show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot				use their knowledge of the order of operations to carry out calculations involving the four operations
Formal Written Methods				
read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs add and subtract one digit and two digit numbers to 20 including zero	add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	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)	

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Add and subtract numbers using concrete objects, pictorial representations and formal written methods where regrouping is required				
Inverse Operations, estimating and checking answers				
recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	estimate the answer to a calculation and use inverse operations to check answers	Estimate and use inverse operations to check answers to a calculations	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	
Problem Solving				
Use place value and number facts to solve problems Solve problems involving addition and subtraction within 20 Solve problems involving addition and subtraction within 100 using concrete, pictorial and abstract representations	Solve problems involving missing number problems, using number facts, place value and more complex addition and subtraction	Solve addition and subtraction two step problems in context deciding which operations and methods to use and why	Solve addition and subtraction multi- step problems in context deciding which operations and methods to use and why	