Addition and Subtraction: Objective Progression Document

	Autumn Term	Spring Term	Summer Term
Year 1	• read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs • represent and use number bonds and related subtraction facts within 20	• 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 • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9	• read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including zero • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9
Mental Maths	• Recall addition and subtraction facts up to 5 • Recall pair of numbers with a total up to 10 • Count in ones from and back to from any small number • Count reliably up to 20 everyday objects	• *Count on or back in tens from and back to zero* • Recall addition and subtraction facts to at least 5	• *Count reliably at least 20 objects* • *Read and write numerals from 0 to at least 20* • *Recall addition and subtraction facts up to at least 5 (and up to 10* • *Read and write numerals from 0 to at least 20*

Year 2	• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
	  ○ a two-digit number and ones
	  ○ a two-digit number and tens
	• solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures
	• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
		• Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
		• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
		  ○ two two-digit numbers
		  ○ adding three one-digit numbers
		• solve problems with addition using concrete objects and pictorial representations, including those involving numbers, quantities and measures
			• applying their increasing knowledge of mental and written methods
			• show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
			• consolidation of above objectives as required

Mental Maths	• *Recall addition and subtraction facts for each number to at least 10* • *Recall doubles of all numbers to 10*	• *Partition a two digit number into tens and ones* • *Say the number that is 10 more/less than any two-digit number* • *Recognise odd and even numbers* • *Recall addition and subtraction facts for each number up to 10*	• *Recall pairs of multiples of 10 that make 100* • *Recall addition and subtraction facts for each number up to at least 10*

Year 3	• To add and subtract numbers mentally, including: a three-digit number and ones • To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. • To estimate the answer to a calculation and use inverse operations to check answers.	• To add and subtract numbers mentally, including: • a three-digit number and ones • a three-digit number and tens • To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction. • To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. • To estimate the answer to a calculation and use inverse operations to check answers.	• To add and subtract numbers mentally, including: • a three-digit number and ones • a three-digit number and tens • a three-digit number and hundreds. • To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction. • To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. • To estimate the answer to a calculation and use inverse operations to check answers.
Mental Maths	• Recall addition, subtraction facts for each number up to at least 10. • Add/subtract 1 to any whole number. • Recall pairs of multiples of 5 with a total of 100	• Recall pairs of multiples of 100 that make 1000. • Recall pairs that make 20. • Add/subtract 1, 10 to any whole number. • Add/ subtract 9, 19, 29… and 11, 21, 31…	• Round any three-digit number to the nearest 100. • State subtraction fact corresponding to addition fact and vice versa. • Recall addition and subtraction facts for each number up to 20. • Add/subtract 1, 10, 100 to any whole number. Add/ subtract 9, 19, 29… and 11, 21, 31…
Year 4	• To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate. • To estimate and use inverse operations to check answers to a calculation. • To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	• To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate. • To estimate and use inverse operations to check answers to a calculation. • To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	• To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate. • To estimate and use inverse operations to check answers to a calculation. • To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
Mental Maths	• *Recall addition and subtraction facts for each number up to 20.* • *Write subtraction fact corresponding to given addition fact.* • *Add/subtract 1 to any whole number.* • *Derive addition pairs that total 100.* • *Add/subtract 10, 100 from any two-digit number.*	• *Recall addition and subtraction facts for each number up to 20.* • *Write subtraction fact corresponding to given addition fact.* • *Add/subtract 1, 10 to any whole number.* • *Add/subtract 10, 100 from any two-/three-digit number.*	• *Recall addition and subtraction facts for each number up to 20.* • *Write subtraction fact corresponding to given addition fact.* • *Add/subtract 1, 10, 100 to any whole number.* • *Add/subtract a pair of two-digit numbers (not crossing 10 or 100 boundary)* • *Derive addition pairs that total 100, multiples of 50 that total 1000.* • *Add/subtract 10, 100 1000 from any two-/three-digit number.*
Year 5	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).

	• Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. • Solve addition and subtraction multi-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. • Solve addition and subtraction multi-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. • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
Mental Maths	• *Add and subtract numbers mentally with increasingly large numbers.* • *Count on/back in equal steps (e.g. 25, 100, 0.1, 0.2), including beyond zero.* • *Recall addition and subtraction facts for each number up to 20.* • *Add / subtract any pair of 2-digit numbers, including crossing 100.*	• *Add and subtract numbers mentally with increasingly large numbers.* • *Count on/back in equal steps (e.g. 25, 100, 0.1, 0.2), including beyond zero.* • *Find pairs of numbers with a sum of 100; derive multiples of 50 with a sum of 1000.*	• *Add and subtract numbers mentally with increasingly large numbers.* • *Count on/back in equal steps (e.g. 25, 100, 0.1, 0.2), including beyond zero.* • *Find pairs of decimals with a sum of 1 / 10.*
Year 6	• Solve addition and subtraction, including multi-step problems in contexts, deciding which operations and methods to use and why. • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	• Solve addition and subtraction, including multi-step problems in contexts, deciding which operations and methods to use and why. • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	• Solve addition and subtraction, including multi-step problems in contexts, deciding which operations and methods to use and why. • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Mental Maths	• *Perform mental calculations, including with mixed operations and large numbers.* • *Add / subtract any pair of two-digit numbers, including crossing 100;* • *Derive sums and differences such as 7.6± 3.8, 760 ± 380.*	• *Perform mental calculations, including with mixed operations and large numbers.* • *Find pairs of numbers with a sum of 100; multiples of 50 with a sum of 1000; decimals with a sum of 0.1,1 or 10.*	• *Perform mental calculations, including with mixed operations and large numbers.* • *Add several single-digit numbers.* • *Count on/back in steps of 25, 0.2,0.25,0.5…*