Glossary of terms used in addition and subtraction teaching at QPIA

Addition	Finding the total value of two or more numbers (+) In addition children are taught to start with the largest number in the calculation
Arrow cards	Used to help children understand partitioning and recombining in place value, Each card shows a hundreds, tens or ones number, e.g. 200, 500, 50, 70, 3, 4, and can be placed on top of one another to make 2- and 3-digit numbers and so on
Bridging through 10	A method of adding two numbers whose total is greater than 10, it is a method that many people use (possibly without realising it) to add numbers mentally. For example: 9 + 6 To add these numbers mentally, pupils are taught to take 1 from the 6 to take the 9 up to 10, and then add the remaining 5 to get the answer, 15
Calculation	Working out the amount or number of something, usually by using one of the four operations.
Commutative	Addition and multiplication have the property of commutativity – when two numbers are added or multiplied, this can be done in any order and the same answer will be obtained: 3 + 2 = 5, 2 + 3 = 5; 4 x 6 = 24, 6 x 4 = 24. Subtraction and division are not commutative
Concrete equipment	Anything which children may use to help them carry out practical maths activities, for example counters to help with addition, cubes and rods for place value or playdough to make 3D shapes
Decade numbers	These are tens numbers, 10,20, 30, 40 and so on.
Dienes	Plastic rods and cubes used to support children in learning place value. Each small cubes represent one unit and each rod represents 10.
Digit	A digit is a single symbol used to make numerals. 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are the ten digits we use in everyday numerals.
Equals	This means 'the same as', this symbol shows that what is on the left of the sign is equal in value or amount to what is on the right of the sign. Is denoted by the symbol = Examples: **7= 3 + 4** means that 3 + 4 has the same value as 7
Finding the difference	A way of carrying out subtraction calculation by finding the difference between two numbers. So to solve the difference between 34 and 47, children are taught to count on from the smaller to the bigger number using a number line
Greater than (G) and less then (q)	Symbols used to show the relative size of numbers. The wide end of the symbol always faces the larger number, e.g. 25 G 10.
Inverse	The calculation which 'un-does' a given calculation, and effectively reverses it. Addition is the inverse of subtraction, multiplication is the inverse of division. So

	for the calculation 4 + 3 = 7, the following calculations also apply: 3 + 4 = 7 (commutativity), 7 – 4 = 3, 7 – 3 = 4.
Number bonds	Pairs of numbers that add up to a specific number. For example, the number bonds to 10 are 10 + 0, 9 + 1, 8 + 2 and so on. Children are taught these bonds early on, as they help calculation skills and also show patterns that are repeated for other number bonds, for example to 20 or 100.
Number fact	Basic addition and subtraction facts that children should learn to recall instantly to support more complex calculations. For example: 5 + 4, 9 + 2, 8 + 8
Number line	A visual representation of numbers along a horizontal line, usually showing numbers 0 -20, it is used to support counting, place value and calculation skills.
Number pattern	A list of numbers that follow a certain sequence or pattern 0 2 4 6 8 10
Number sentence	3 + 4 = 7 is an addition number sentence, 7 – 3 = 4 is a subtraction number sentence.
Numicon	A school teaching aid consisting of plastic tiles with holes which represent the numbers 1 to 10 and can be used to teach place value, ordering and calculation
Operation	The four mathematical operations are addition, subtraction, multiplication and addition.
Ordering	Putting numbers in the correct order according to size. Ascending order goes smallest to largest, descending order from largest to smallest. Ordering also involves using the greater than, less than and equals symbols (and =).
Ordinal numbers	Numbers which indicate order – 1st, 2nd, 3rd and so on.
Partitioning	See also recombining. Partitioning is dividing a number into the individual values of its digits, and helps children to understand the values of these digits. For example 782 can be partitioned into 700 + 80 + 2.
Place Value	The value of all the digits in a number. For example, in the number 67, the digit '6' is worth 60, the digit '7' is worth 7 ones or units.
Subitising	Instantly recognizing the number of objects in a small group, without counting. Example: when you know there are 5 coins here without counting.
Subtraction	Taking one number away from another, finding the difference between the two. Denoted by the symbol '-'.
Subtraction using a number line	See also finding the difference. Children are taught to use a number line to carry out subtraction calculations, either by counting back from the starting number or by finding the difference between the smaller and greater number in the calculation.
Sum	The result of adding two numbers together.
Recombining	See also partitioning. Recombining is putting the number back together to make the original number. For example 200 + 50 + 3 is recombined to make 253.
Word problem	A mathematical calculation presented in words. Pupils are taught to find the key information, work out what type of calculation is needed and then work out the answer. Written method A way of carrying out a calculation which is done on paper rather than entirely mentally.
Written method	A way of carrying out a calculation which is done on paper rather than entirely mentally.