Westbury Park School

Year 4

Methods and Representations

At Westbury Park School, we follow the White Rose scheme of learning. This scheme allows us to ensure total coverage of the curriculum, appropriate knowledge and skills progression and offers a range of methods and representations to support arithmetic and problem solving.

This booklet offers you an example of how they are taught and used within your child's year group.

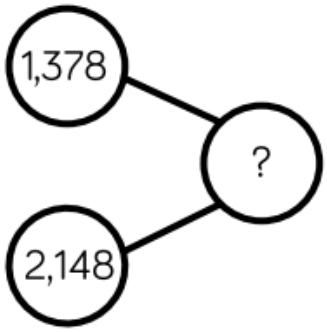
For videos showing the maths in action, please click on the links throughout the booklet.

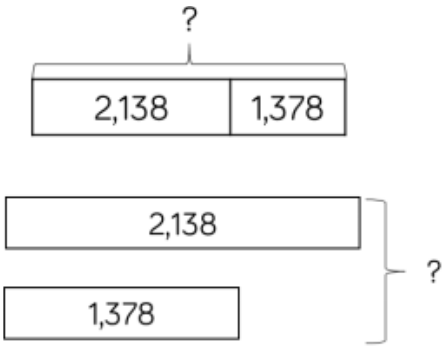
Addition

Children are encouraged to use bar models, part whole models and number sentences to represent their understanding of the calculation.

Children use the expanded method of addition with dienes. They will often do this practically in the classroom- a visual representation of this can be seen below. The formal written method of column addition is then used to solve the calculation.

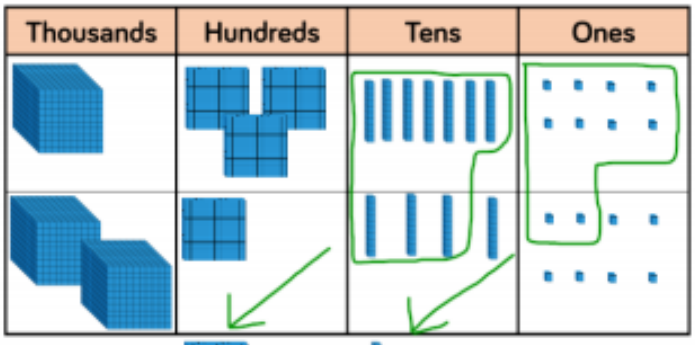
Adding numbers with up to 4 digits
Click here for the video





	1	3	7	8
+	2	1	4	8
	3	5	2	6
		1	1	

$$1{,}378 + 2{,}148 = 3{,}526$$

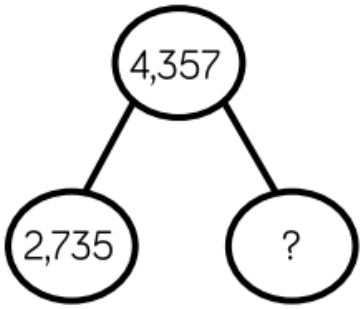


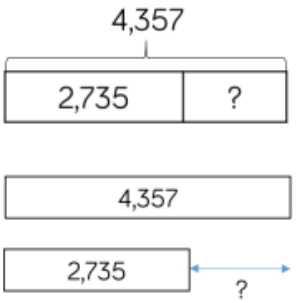
Subtraction

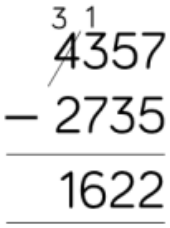
Children are encouraged to use bar models, part whole models and number sentences to represent their understanding of the calculation.

Children use the expanded method of subtraction with dienes. They will often do this practically in the classroom- a visual representation of this can be seen below. The formal written method of column subtraction is then used to solve the calculation.

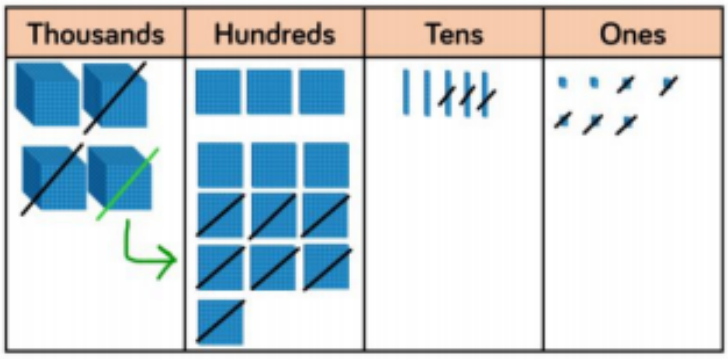
Subtract numbers with up to 4 digits with exchanging
Click here for the video







$$4{,}357 - 2{,}735 = 1{,}622$$



Multiplication

Children are encouraged to mentally solve some multiplication calculations including multiplying by 10,100 and 1000 and using their number facts up to 12 x 12. By the end of Year 4, children are expected to be fluent in their tables and should be able to recall them in a mixed format.

The formal written method of short multiplication is used to solve the calculation.

Multiply 2 and 3 digit numbers by 1 digit
Click here for the video

$34 \times 5 = 170$

	H	T	O	
		3	4	
×			5	
	1	7	0	
	1	2		

$245 \times 4 = 980$

	H	T	O
	2	4	5
×			4
	9	8	0
	1	2	

Division

Children are encouraged to use their times table facts to aid them in their division. The relationship between division and multiplication is referred back to throughout teaching and children should be encouraged to be fluent in their tables (up to and including 12x12) by the end of Year 4.

The formal written method of short division is used to calculate.

Divide 2 and 3 digits by 1 digit
Click here for video

$$856 \div 4 = 214$$

		2	1	4
	4	8	5	$^{1}6$