Blakesley Hall Primary School

Safe, Secure and Successful

Maths

Year 4

Written Calculations Policy

At Blakesley Hall School we want all of our children to enjoy and succeed in Maths. We teach children to calculate mentally wherever possible and this is supported by written methods which are appropriate to the level of understanding of the pupils. We have created this Written Calculations Policy to support pupils, teachers and parents so that all children are taught the correct method for their age and ability.

Advice for parents

As well as teachers, we know that parents have an important role in our pupil's learning. All parents should be helping children with Maths at home. Therefore, we feel it is crucial to share the calculations policy with you all, so that children are taught the same methods for maths at home as in school.

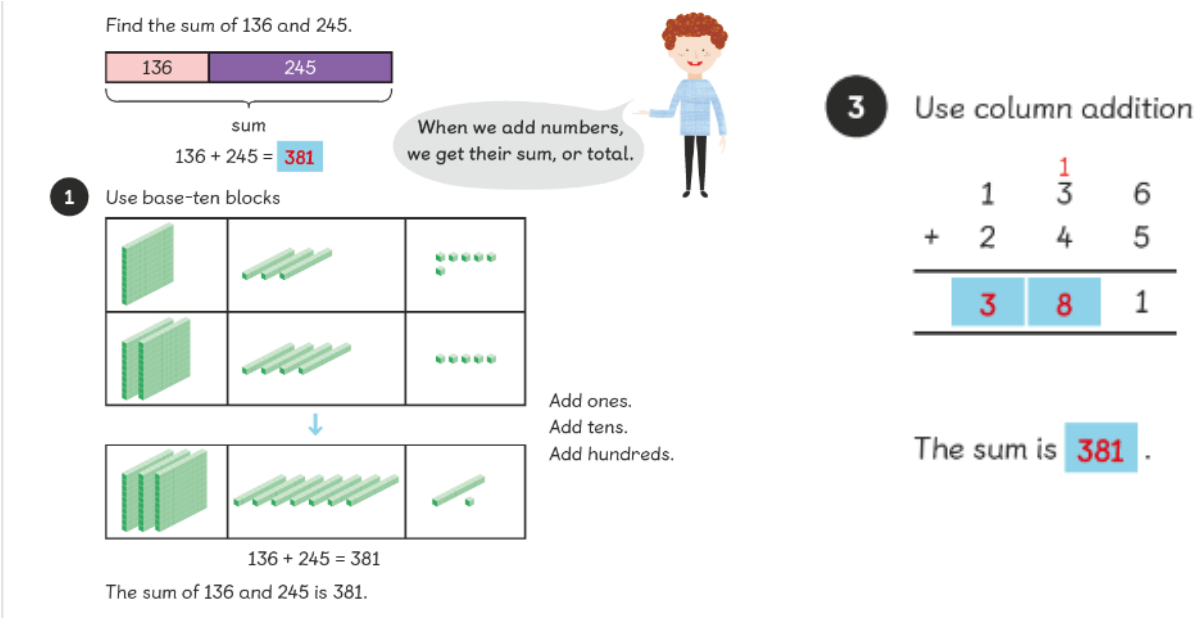
- Please take some time to look at the methods your child is being taught in school, and practise these together. If you are unsure of your child's level, then please ask their teacher.
- It would be a good idea to display the calculations policy you have been given for your child on the wall close to where they do their homework.
- When children are doing their Numeracy homework, please check that they are using the correct methods appropriate for their level of learning. Please be aware that the strategies are progressive and should be taught/practised in order.
- If you have any questions about any of the methods, please come in and speak to your child's teacher. **We need to work together to help our children to improve.**

We hope that you find this information helpful.

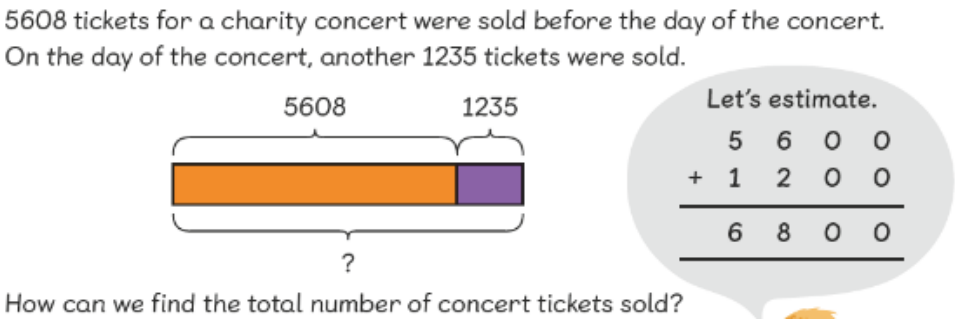
Addition

National Curriculum expectations are that children in Year 4: use numbers within 10,000 for addition and subtraction, add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction where appropriate and estimate and use inverse operations to check answers to a calculation.

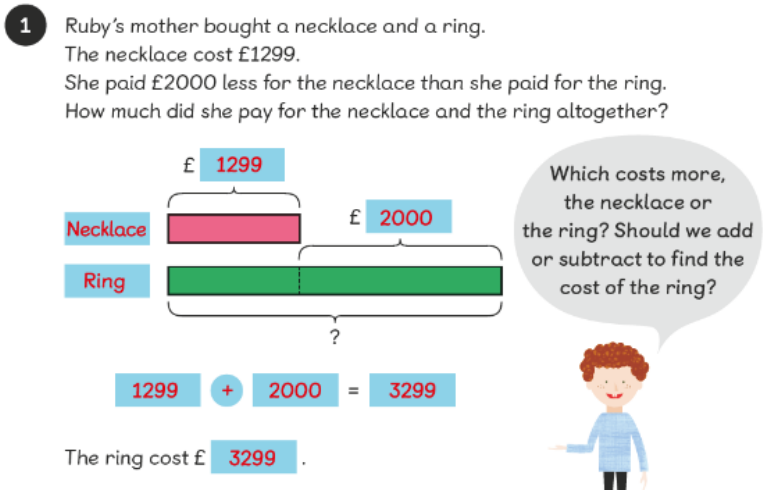
Children will continue to use and develop their mental strategies for addition. They can also use objects to support written methods.



Encourage the children to estimate their answers before answering the question.



Use word problems to consolidate children's understanding and apply their mathematical skills.

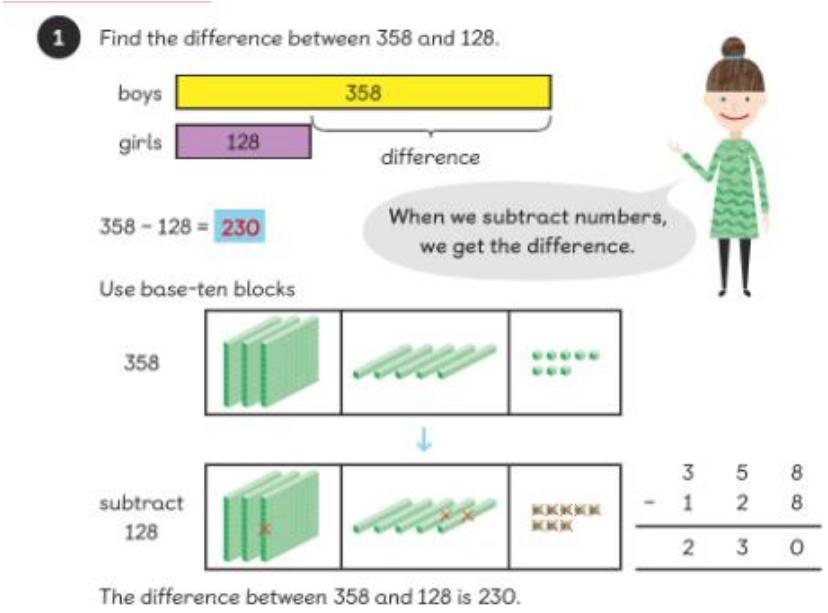


Children to use the bar model to support their understanding of the problem.

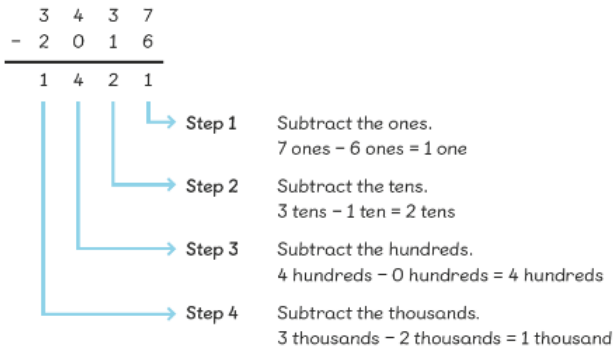
Subtraction

National Curriculum expectations are that children in Year 4: use numbers within 10,000 for addition and subtraction, add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction where appropriate and estimate and use inverse operations to check answers to a calculation.

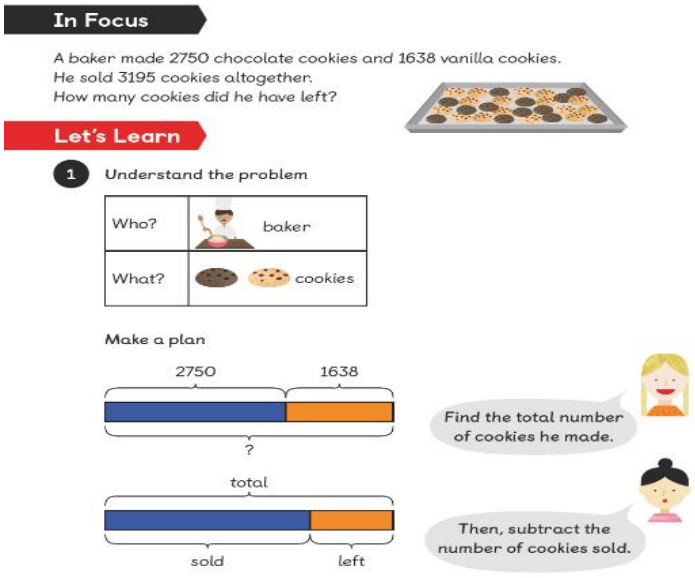
Children will continue to use and develop their mental strategies for subtraction. They can also use objects to support written methods.



Use column subtraction, as shown here:



Encourage the children to estimate their answers beforehand and use word problems to consolidate children's understanding and apply their mathematical skills.



Children to use the bar model to support their understanding of the problem.

Multiplication

National Curriculum expectations are that children in Year 4 must recall multiplication and division facts for multiplication tables up to 12 × 12 and multiply two-digit and three-digit numbers by a one-digit number using formal written method. Pupils will need to solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers.

Ensure the children are confident in their understanding of multiplication.

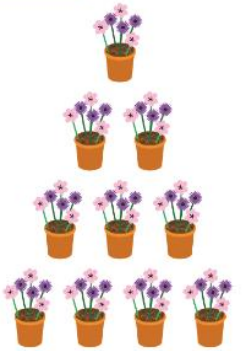
Multiplying by 6

In Focus

How many flowers are there altogether?

Let's Learn

1



1 group of 6
1 × 6 = 6

2 groups of 6
2 × 6 = 12

3 groups of 6
3 × 6 = 18

4 groups of 6
4 × 6 = 24

There are 24 flowers altogether.

By the end of Year 4, it is the National Curriculum expectation that ALL children know their times tables up to 12x12. This needs to be taught and consolidated alongside the use of regular practise tests.

Here is an example of the formal written method used, use it alongside models and images to consolidate children's learning.

In Focus

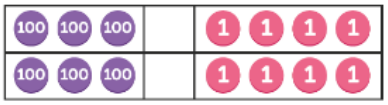
This costs twice as much.

How much does  cost?

Let's Learn

1  £304

£304 × 2



300 × 2 = 600
4 × 2 = 8
304 × 2 = 608

 costs £608.

2 304 × 2 = 608

4 × 2 = 8

	3	0	4
×			2
			8

300 × 2 = 600

	3	0	4
×			2
			8
+	6	0	0
	6	0	8

3 3 × 123 = 369

100	20	3
100	20	3
100	20	3

3 × 100 = 300 3 × 20 = 60 3 × 3 = 9

3 × 123 = 300 + 60 + 9
= 369

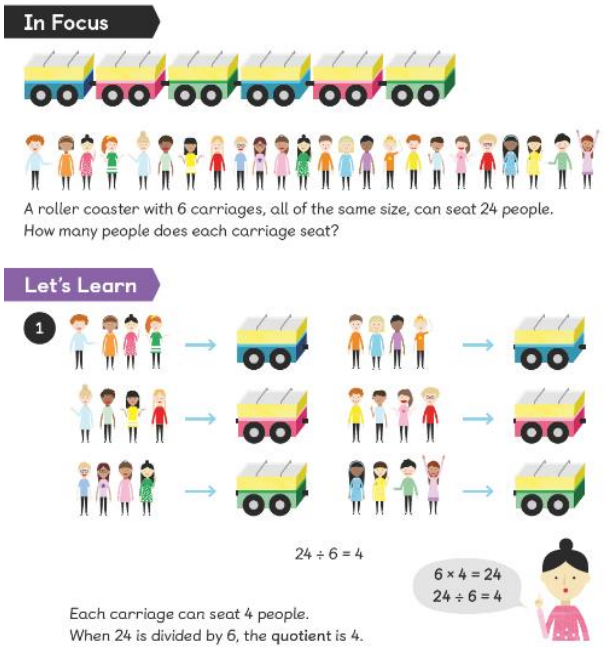
	1	2	3	
×			3	
			9	multiply the ones
		6	0	multiply the tens
+	3	0	0	multiply the hundreds
	3	6	9	

Ensure children are confident in these methods by applying them to word problems with increasingly harder numbers.

Division

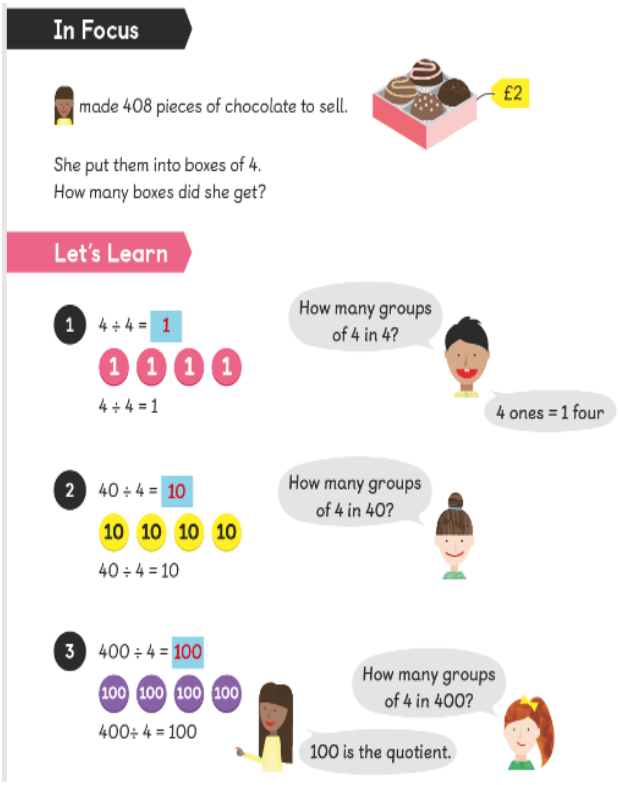
National Curriculum expectations are that children in Year 4 must recall multiplication and division facts for multiplication tables up to 12 × 12 and divide two-digit and three-digit numbers by a one-digit number using formal written method. Pupils will need to solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers.

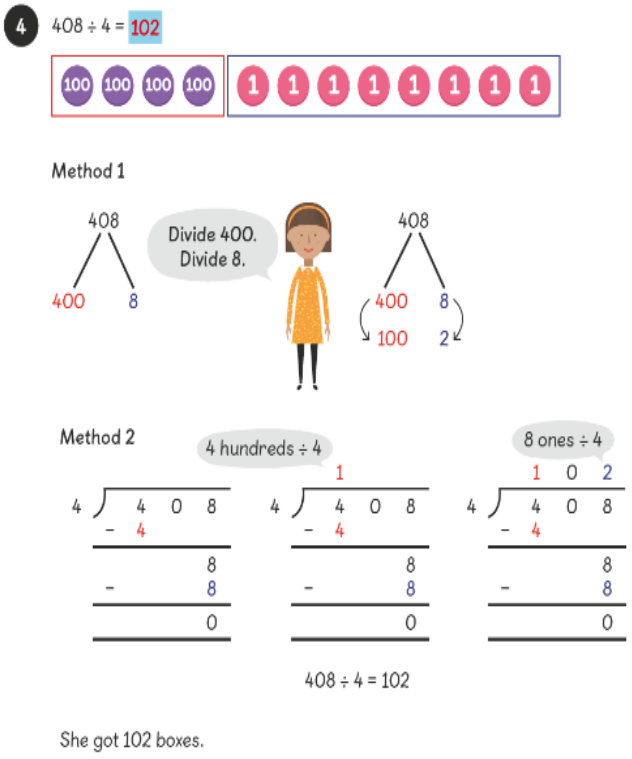
Ensure the children are confident in their understanding of division.



Place emphasis on the term 'quotient' and encourage pupils to use this when feeding back in the lesson. Identify the problem as 'sharing' as we have shared the number of pupils (dividend) equally into the carriages (divisor).

Here is an example of the formal written method used, use it alongside models and images to consolidate children's learning. Begin with dividing 2 digit numbers then progress onto dividing 3 digit numbers.





Ensure children are confident in these methods by applying them to word problems with increasingly harder numbers.